

# Seawords

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Seawords

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## Turtle Tagging on the Big Island

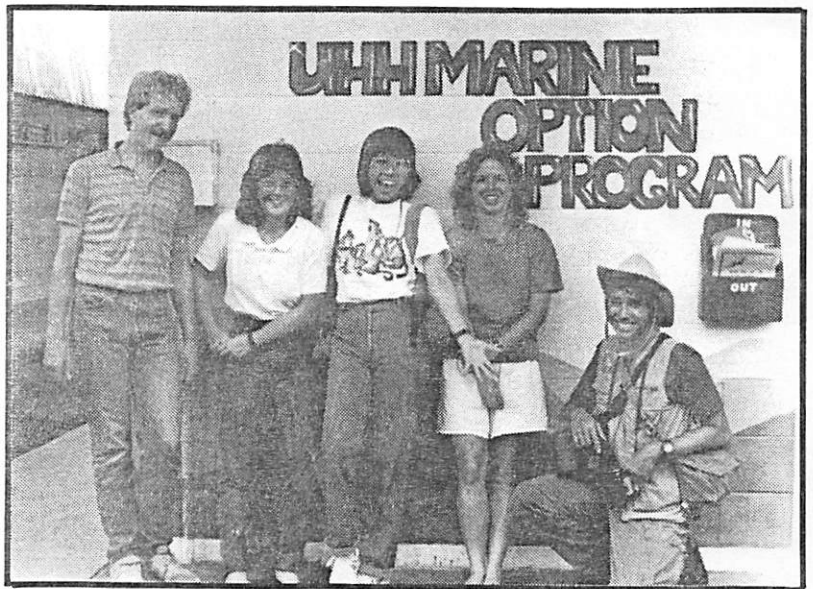
By Dan Bauer

Tagging sea turtles drew about 25 MOP students from Hilo, Manoa and Maui programs to the black sand beach park of Punaluu on the Big Island for three days during spring break, March 21 through 23. The project was coordinated by UH-Hilo MOP and conducted by researcher Robert Forsyth of the National Marine Fisheries Service (NMFS).

MOP students helped Forsyth capture, study, tag and release Hawaiian green sea turtles (*Chelonia mydas*), a threatened species that frequents the southeast coastline of the Big Island, a region known as Ka'u.

The cove at Punaluu has been the site for several turtle tagging expeditions in the past, by Hilo MOP and others, under the direction of George Balazs of NMFS. The sea turtles may be attracted to the area by a species of red limu (*Pterocladia capillacea*) that grows there. By studying the green sea turtles, NMFS scientists hope to learn more about their growth patterns, and feeding and migratory habits.

Being classified as a threatened species means that the Hawaiian green sea turtle is likely to become an endangered species in the near future, according to the federal Endangered Species Act. An endangered species is one that is in immediate danger of extinction.



Turtle tagging Manoa MOP students take time out to visit the UH Hilo MOP campus. L to R: Dan Bauer, Tina Xavier, Lara Asato, Mary Roney, and Raymond Boland.

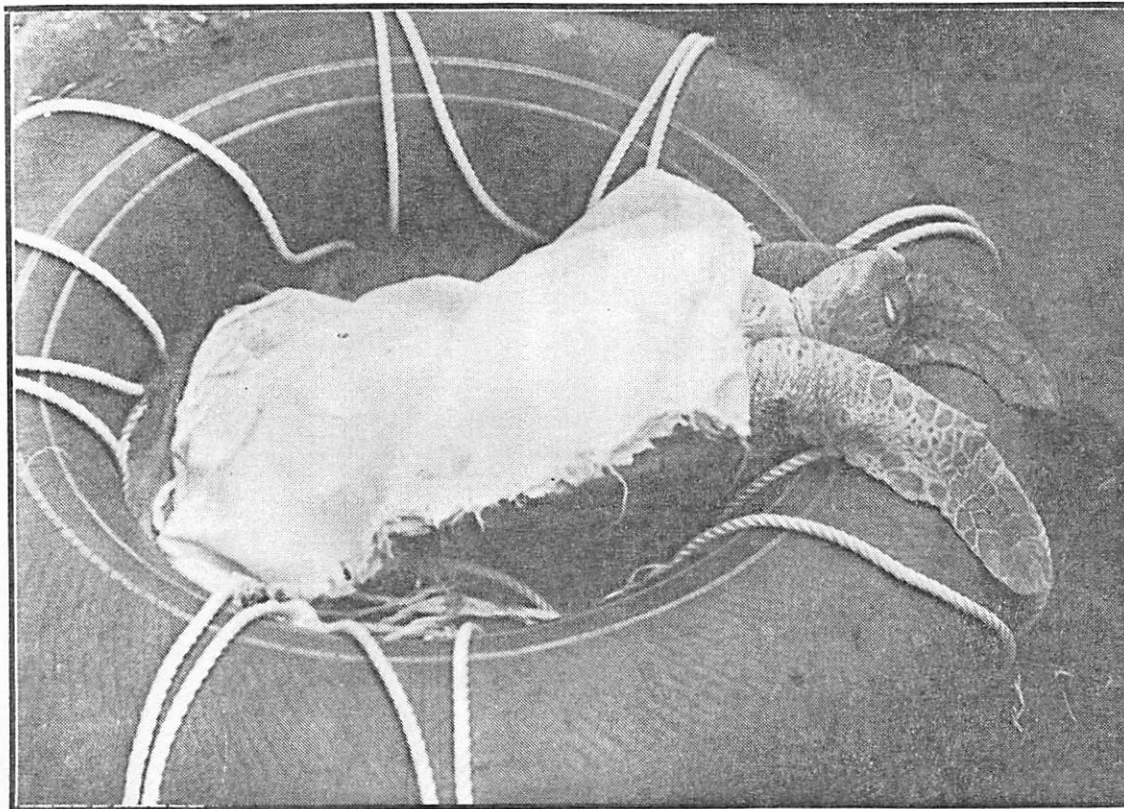
UH-Hilo MOP Coordinator and project supervisor, Walt Dudley explained the two-fold purpose of the project: NMFS receives data from the turtles, and MOP students learn about the sea turtles by participating in the methods that scientists use to study these reptiles.

Everyone camped out around the main pavillion of the county beach park for the duration of the project, which began Monday afternoon with the setting of the 60-foot long by 10-foot deep tangle nets used to snare the feeding sea turtles.

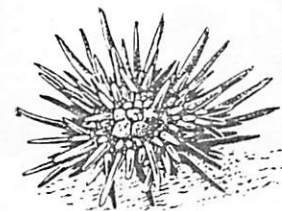
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# Turtle Tagging

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A turtle caught in Punaluu in the evening rests on an inflated tire tube, and waits to be measured in the morning. -Photo by Raymond Boland.



Wetsuits were worn by practically all the snorkelers. Cool groundwater that seeps in abundance into the cove through the porous lava rock made the water temperature feel to some snorkelers more like that of an alpine lake than a tropical ocean.

It didn't take long to catch the first turtle: one snared itself in the net while the snorkelers were still trying to get it set. The turtle was hauled out and set on its back inside an inner tube to rest out the night. Being placed on its back overnight immobilizes the turtle, while doing it no harm, Forsyth explained. That is the way that all caught turtles are stored overnight; then in the morning all measurements and samples are taken together.

That evening, four-person teams working two-hour watches monitored the net's floats for any sign of snared turtles. Netted turtles could easily become exhausted and drown if not promptly removed from the net. During normal activity, turtles need to come up for air every few minutes.

The net yielded no more turtles that evening, and at 1 a.m. a few hardy MOPers

ventured into the water with snorkels and dive lights to pin up the net to the floats, so that the net could remain set in the water. However, no more turtles would get caught while the crew slept.

The following morning students helped as Forsyth took several measurements of the turtle, tagged its two front flippers, and turned it back on its stomach. The newly released turtle wasted no time in finding its way downhill and back into the water, where it proceeded to make itself scarce.

Tuesday afternoon, a local throw-net fisherman gave the tagging crew a small green sea turtle that he had caught in his net. No more turtles were netted that evening, even though it was decided to pull an all-night watch (to the surprise of a few unlucky souls who had gone to bed unaware that they were due for late-night wakeup call).

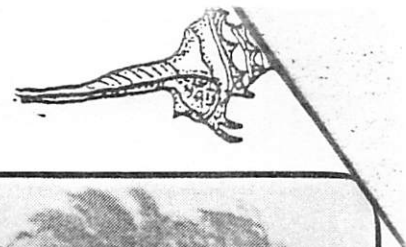
Wednesday morning, Hilo MOPer William Dana decided that the team hadn't tagged enough turtles, so he snorkeled out into the frigid cove and caught one with his bare hands. That gave Forsyth and the students two small turtles to measure and tag that morning.

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# Turtle Tagging

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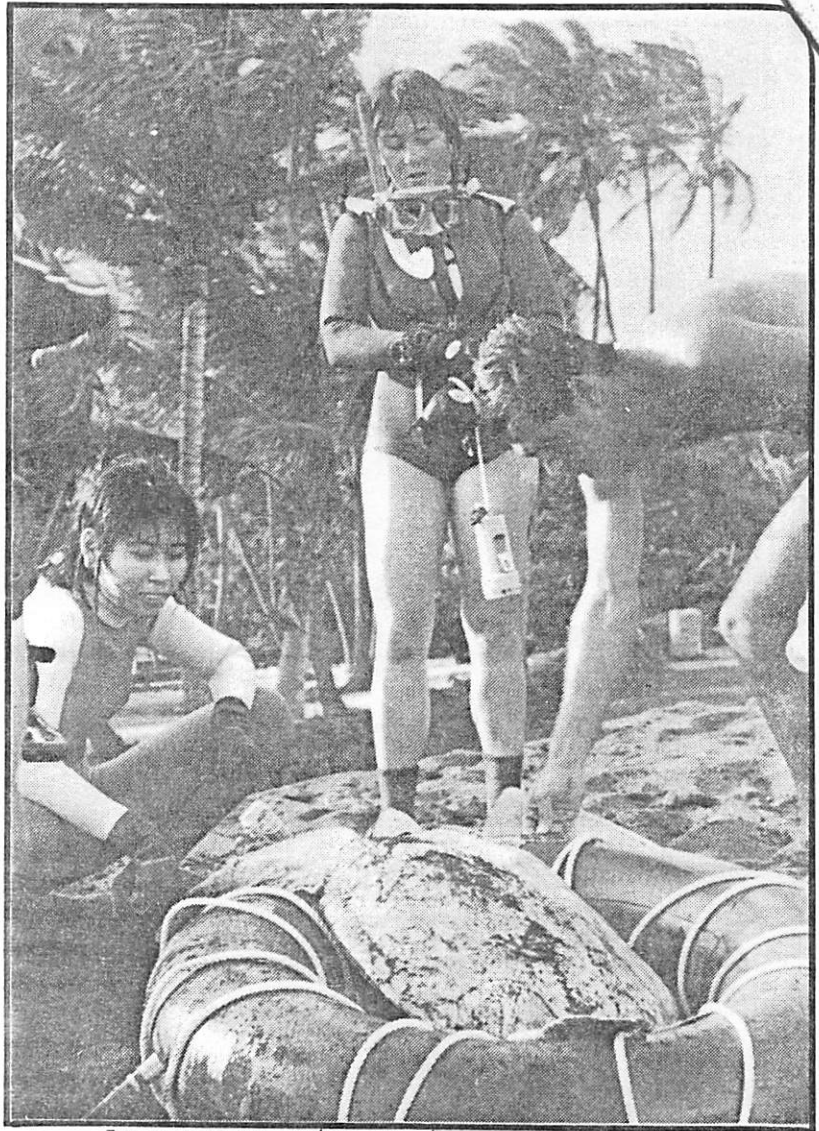


Stomach samples were also taken of the two turtles. After some difficulty in getting the turtles to open their mouths, a rubber hose was inserted down their throats. Water was then flushed through the hose. As it washed back out their mouth, small pieces of limu came out with it. The sample was collected in a jar for later laboratory analysis. The newly tagged turtles were each then returned to the beach, where they swiftly splashed off, undoubtedly glad that their terrestrial ordeal was over.

Everyone stayed more than well-fed during the expedition, thanks to Kimber Alspach from Hilo MOP, who organized the whole project. Each of the students had their turn at kitchen duty for one meal. Some bemoaned the fact that this was the first camping trip that they had actually gained weight on.

Many students expressed that the most interesting part of the trip was meeting all the different MOPers from the various islands, who presented a wide assortment of personalities. Some enjoyed a trip to a large heiau located across the cove from the pavillion. Several felt they benefitted most from the hands-on participation in capturing, studying and releasing the sea turtles.

Following the return to Hilo, some visiting Manoa and Maui students stayed on to witness the creation of Big Island real estate when they ventured down the coast to Kalapana, where heavy ocean breakers were assaulting an active Kilauea lava flow.



Lara Asato, Tina Xavier, and Robert Forsyth (NMFS) after they have placed the turtle on its back in the inner tube. -Photo by Raymond Boland.



NMFS researcher and sea turtle specialist George Balazs normally heads such turtle tagging projects, but unfortunately, circumstances prevented his attendance this year.

About 18 Hilo students participated in this year's turtle tagging project. Manoa MOP students in attendance were: Lara Asato, Dan Bauer, Ray Boland, Mary Roney, and Tina Xavier. The two MCC MOP students participating were: Robert Lohle and Heidi Tobias-Glover. The Manoa students recently held a MOP-in slide show about the expedition.

Left: MOP students detangle and lay out the net to be used to snare turtles.

-Photo by Raymond Boland.