



—BARON SEKIYA—WHT

**FREEDOM** — Scientists watch as a tagged turtle returns to the sea.

## Scientists tagging turtles

By ANNE BAKER  
West Hawaii Today

A young woman struggled with him in the swells just off shore of a South Point beach. She grabbed his front flippers as he thrashed to get away.

While the strong 110-pound turtle attempted to escape, the student holding on to him called for help. When other people arrived, they all managed to turn the green sea turtle upside-down, place a

float beneath his shell and swim him toward land. His flippers waved around in the air.

"It is a bit like turtle rodeo.... They are strong, gentle creatures that don't like to be caught," said Emmanouela Albanasiades, a student from Greece who described catching the turtle yesterday at Punaluu Beach.

See **TURTLE**  
Page 4A

# ...Turtle tagging may one day save them

From Page 1A

The turtles are never subjected to stressful riding, but are caught by hand or corralled with a net and driven onto shore. Yesterday, their temporary captors were researchers and oceanography students gathering data to help the threatened green turtle species survive.

The turtles are thoroughly examined to determine injuries, disease, growth rate, migratory movements and population size. The information goes to a federal database to help design conservation strategies that will work, such as protecting breeding beaches from human intrusion, researchers said.

Punaluu Bay is one of eight locations throughout the Hawaiian Islands where turtles have routinely been captured, tagged and released in expeditions led by scientists of the National Marine Fisheries Service (NMFS) year, said George Balazs, researcher in charge of the NMFS Marine Turtle Program. The program costs about \$76,000 a year, Balazs said.

Once the turtles at Punaluu were caught, they were carried up to shade resting upside down on huge floats that look like truck tire inner-tubes. Hundreds of curious people at the public beach were given handouts telling them what was going on. The turtles are measured, weighed and then tagged with a piece of metal, pierced through a flipper, for identification.

Only one of the 14 turtles caught during the Punaluu expedition was an adult and had been tagged before. This adult male turtle was originally tagged in 1982 at the breeding grounds 800 miles from his home in Punaluu, Balazs said. He weighed 150 pounds and was about 5 1/2 feet long from nose to tail.

The turtles captured are also

thoroughly examined for injuries and signs of disease. One turtle captured had a propellor gash in his shell. The smallest turtle, about two feet long six years old, was found dead along the beach with slash marks on one flipper suggesting he was entangled in fishing line or a gill net and drowned, Balazs said.

The type of turtles captured reflect the actual population, he said, because very few turtles survive 25 years to reach maturity. The threats begin even before the half-dollar-sized turtles hatch.

"The kids race on the sand with four wheel-drives right over where turtles lay their eggs," said Komaka Bangay, who was born and raised at Punaluu Bay.

Bangay said he and his nephew built a fence around the nest. When the tiny turtles hatched, they instinctively headed for the brightest horizon, which is usually the ocean, and ended up in a parking lot confused by artificial lighting.

Green sea turtles navigate hundreds of miles, passing ideal beaches on Maui and Oahu to nest on the tiny islands of French Frigate Shoals, perhaps because that was where they hatched, Balazs said. The turtles that nest on Punaluu beach are hawksbill turtles, a critically endangered species of sea turtle.

Hawkbills once nested at Harry K. Brown Beach, now covered by Kilauea lava flows. It is also possible that acidic material from the lava is damaging seaweed Punaluu turtles feed on, Balazs said.

There is a new concern that land development may create algae that damages sea weed turtles feed on, said David Tarnas, University of Hawaii Sea Grant coordinator. Tarnas said he works with the private sector

and government to make sure that the turtles are as protected as possible as coastal development continues. Athanassiades said that in Greece, coastal recreation development threatens many of the sea turtles because people hit turtles with jet skis and even picnic on the breeding beaches.

"It would be like putting a resort on French Frigate Shoals," Balazs said.

It is possible that human introduced pollution may cause a life-threatening tumor disease epidemic in some Hawaii green turtle populations, Balazs said.

Diseased turtles often are found in areas where human development is nearby, but have also been sighted in remote areas, a NMFS report indicates. Large numbers of tumor afflicted turtles have been sighted off the island of Oahu at Kaneohe Bay, Haleiwa Harbor, in the ocean off Kahala Beach and even at Hanauma Bay, the report said.

"In Kaneohe Bay, 60 to 70 percent of the turtles have this disease," Balazs said. "Hilo Bay is not a healthy place for them either."

For the island of Hawaii, tumor afflicted turtles are found in in Puhi Bay — waters adjacent to a sewage treatment plant outside of Hilo, the report said. Balazs said that there are several hypothesis about what causes the tumors: a virus, a bloodworm or a low-level pollutant suppressing their immune system.

"The bottom line is we don't have an answer," he said.

The turtles are very site specific, living in the same ocean areas for most of their lives. Researchers have never had a tagged turtle from Punaluu show up in Hilo for example, he said.