

# Waikiki's green turtle population is growing

**I**N the past, Waikiki hasn't been a haven for green sea turtles, but a recent study shows that has changed.

Several years ago, increased sightings of turtles in Waikiki sparked the curiosity of Russell K. Miya, a Marine Option Program student at the University of Hawaii. Along with National Marine Fisheries Service biologist George Balazs, Miya designed a study to gather facts about the green turtles of Waikiki. The results, published in the February issue of the Hawaii Audubon Society's journal, *Elepaio*, show that more than 100 healthy turtles now browse and rest in the waters off Waikiki.

During the 10-month study, the researchers learned much more than just how many turtles live in the area. Workers observed turtle behavior by snorkeling and watching from the shoreline. They also set up an observation station in a 12th-floor Sheraton Waikiki Hotel room, donated by the hotel.

While other people were watching the sunsets from rooms-with-a-view, these researchers and their helpers were watching turtles, recording when, where and for how long the animals were grazing and resting.

The resulting data showed that Waikiki turtles usually graze within 300 feet of shore, eating the various kinds of algae that grow abundantly in the area. Most often, the turtles feed in late afternoon and early evening.

Between feedings, the turtles rest on the bottom in or near caves or reef ledges in two locations: near the Kapahulu seawall and in an area off Fort DeRussy called Canyons. At Canyons, turtles regularly get "cleaned" by surgeonfish and wrasses, a behavior that researchers still don't fully understand.

In order to find out exactly what the greens are eating, researchers caught several by hand or nets, then inserted a plastic tube through their mouths and into their crops. By flushing sea water into the tube, the researchers could collect and analyze food particles.

All four turtles sampled had eaten several kinds of native algae, but two of three turtles caught off the Sheraton had also eaten an alien red seaweed introduced from Florida in 1974. One of those turtles had paper in its crop. A fourth turtle, captured near the Kapahulu seawall, had eaten only the native alga called sea lettuce.

Not to waste an opportunity, Balazs and Miya measured, weighed and tagged 15 of the Waikiki turtles for long-term monitor-



## OCEAN WATCH

By Susan Scott

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ing.

While most would agree that an increase in Hawaii's green turtle population is good, there is a down side. During the study, three green turtles were found dead on Waikiki Beach, two with propeller slashes on their bodies, one a gillnet mortality. Obviously, when an endangered species begins to thrive in a crowded human hang-out, we need to rethink our use of that space. The turtles have a right to be there without drowning in unattended nets or getting wacked to death by propellers.

Interestingly, shark predation and disease did not appear to be major factors in the lives of the Waikiki turtles. Only one turtle had a piece of its shell missing, presumably the result of either a shark bite or a propeller hit, and only one turtle had tumors.

Speaking of turtle tumors, I recently watched an excellent video called "Fall of the Ancients, Hawaii's Green Sea Turtles in Crises" produced by the Honu Project in association with Earthtrust. This well-done, 45-minute video shows the greens in all their glory and all their distress.

I thought I knew quite a bit about turtle tumors but I learned a lot more. Some statistics were shocking. From 1982-85, Balazs and workers tagged 397 greens in Molokai waters and not one had tumors. In 1988, about 5 percent of those had tumors. The next year, 10 percent were afflicted. By the end of 1990, 25 percent of Molokai's tagged turtles had this fatal disease and 1991 is the worst yet: 36 percent. These numbers are rapidly approaching the 50 percent figures currently seen in Kaneohe Bay.

The video examines Hawaii's turtles, highlighting the work of Balazs, then goes to Florida where greens are suffering a similar epidemic.

I highly recommend this video for schools, dive clubs and all those interested in Hawaii's marine life. Call John Lindelow at 236-4544 for information.

Susan Scott is a marine science writer and author of three books about Hawaii's environment. Her Ocean Watch column appears Monday in the Star-Bulletin.