

Tagged turtle has stuck to West Maui

Radio transmitter shows creature keeping nearby

By **HARRY EAGAR**
Staff Writer

LAHAINA — So far, Turtle 5690 is looking like “truly a ‘Maui Girl,’” according to researcher George Balazs, who attached a satellite tracker to the female green sea turtle on July 11.

Turtle 5690 is the only confirmed green to have nested on Maui in half a century. She has now nested in two seasons, but it is a mystery where she went in between.

The satellite tracker shows she hung around Lahaina town for a few days after completing her fourth and final nest of this season.

But on July 16, she started moving. On that day, she swam north for a while, then changed course and was located later that same day off Manawaipuëo Gulch, on the east side of Papalaua County Beach Park but not quite to the pali tunnel area.

By the next day, she was as far north as the Kapalua area, where she has stayed since. Her northern limit has been roughly Honokahua.

She has not ventured far offshore, presumably staying near the algae she feeds on.

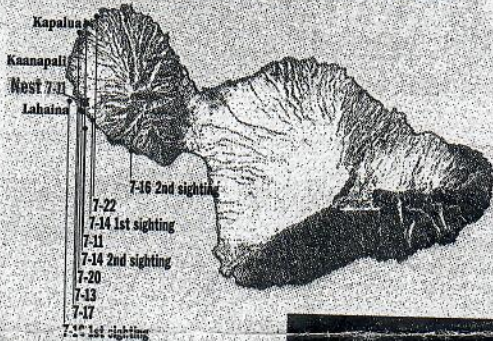
Turtles are unpredictable as to ranges. Balazs said earlier he could not predict whether she would take off on a “great journey” or a little one.

Recently, it has been a little one, although in her lifetime Turtle 5690 has gotten around.

Balazs collected her as a baby at French Frigate Shoals. She was “head-started” at Sea Life Park on Oahu until she and more than 100 classmates were released at various points around the islands.

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Tracking A Green Sea Turtle



Green sea turtle 5690 nested the night of July 10-11 just south of Lahaina Shores, where a satellite tracker was attached to her back. Since then, when she surfaces a geographical positioning system signal tells researchers her location. For two weeks, the tracking showed her moving along the West Maui coastline as far north as Honokahua and as far south as Manawaipueo Gulch. The map data was provided by George Balazs of the National Marine Fisheries Service.



NMFS/Cherly King photo
National Marine Fisheries Service marine biologist George Balazs inspects Turtle 5690 in Lahaina earlier this month.

Turtle

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Turtle 5690 was set loose two decades ago at Hilo. She was then about the size of a dinner plate.

The experiment was intended to determine whether pen-raising turtles would give individuals of the threatened species a better chance of maturing and reproducing.

Baby turtles are favorite foods of marine and bird predators.

How much advantage head-starting offered is unclear. Of all the plate-size youngsters set loose, only 5690 has ever been identified again, from a tag that amazingly was still attached after all these years. It was spotted in 2000 when 5690 came ashore to dig a nest near Lahaina Shores Beach Resort.

By the time 5690 was nesting

again this season, Maui's turtle trackers were ready. They missed a couple of chances, but fortunately, she came ashore four times.

On the last trip, a team of researchers was ready with a one-pound satellite tracker, a holding pen and fiberglass resin and cloth to attach the tracker to her shell. The device that sends a signal to an overhead satellite when the turtle surfaces should be good for six to seven months, and may be signaling for as long as a year.

Balazs was pretty sure the July 11 nest would be the last, and since two weeks have passed without another attempt, he is now certain that she is through laying eggs for this year.

It is too early to say for sure, but it may "turn out she lives year-round in Maui coastal waters," he says.

TURTLE #5690

Fertile turtle continues to nest

Group helps guide hatchlings to the sea

By HARRY EAGAR
Staff Writer

LAHAINA — About 30 people were gathered in the canoe hale at Kamehameha Iki Park two weeks ago for an informal discussion of Hawaiian culture.

Just after it got fully dark on Aug. 21, the sand on the beach started erupting baby green sea turtles, who, misguided by the light, started heading inland.



McCarty

Fortunately, one of the participants, a Richard McCarty of Kaanapali, who is a Maui representative to the advisory council of the Hawaiian Islands Humpback Whale National Marine Sanctuary, knew who to call.

Then he and his friends cleared away beach morning glory for the little turtles, shooed them into the ocean and helped out a few who had gotten themselves entangled.

Skippy Hau of the Aquatic Resources Division of the Department of Land and Natural Resources and Glynnis Nakai of the Kealia Pond National Wildlife Sanctuary arrived to excavate the nest, boost out stragglers and collect information.

This is getting to be a busy summer for Hau and Nakai. The nest that hatched Aug. 21 was the third that Turtle 5690 laid. She is up to seven now and gives every sign of being ready to dig an eighth nest somewhere in Lahaina this week.

"Nothing surprises me anymore with this turtle," says George Balazs, who released 5690 back to the wild as a yearling more than two decades ago.

Balazs says it was symbolically appropriate for nest No. 3 to interrupt a meeting on Hawaiian culture. Sea turtles are as old as any aspect of Hawaii. "They were here when the first migrants arrived."

Green sea turtles have been around a lot longer than any of these islands, and



The Maui News / AMANDA COWAN photo

When green sea turtle hatchlings began to pop out of the sand on the beach at one end of the Lahaina Shores condominium complex, General Manager Carol Koepke agreed to redirect the security lighting that could attract young turtles

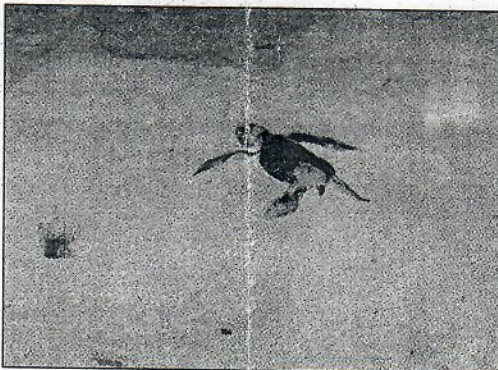
toward the light and away from the ocean. The beach has been established as a nesting grounds for Turtle 5690, released to the wild 20 years ago after being raised at Sea Life Park on Oahu.

genetic studies indicate that they have been isolated from other green turtle populations for a long time.

Although they were hunted to low numbers up to the 1970s, their numbers have rebounded since gaining protection. Snorkelers and divers often see them in the water.

But until two years ago, encounters between turtles and people on the land were almost unheard of on Maui. It was then that Turtle 5690 dug a nest next to a hotel in Lahaina.

This year, she has dug seven along a



The last of 60 baby green sea turtles to be helped from a nest on a Lahaina beach makes its way to the ocean after being rescued by wildlife specialists Skippy Hau and Glynnis Nakai.

State Aquatic Resources Division photo

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The Maui News

Sunday September 1, 2002

Maui's Newspaper Since 1900



State Aquatic Resources Division photo

The last of 60 baby green sea turtles to be helped from a Lahaina beach makes its way to the ocean with an assist from federal wildlife specialist Glynnis Nakai (second from right) and an audience of volunteers who kept watch over the nests in the sand this summer. The volunteers kept the nests safe, but only specialists with permits, like Nakai, are allowed to handle animals protected by the Endangered Species Act.

Turtle

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stretch of beach from Kamehameha Iki Park to just beyond Lahaina Shores.

Although nesting turtles normally seek out darkness, 5690 has sometimes ignored electric lights. In one case, she unconcernedly went about her business despite Samoan fire knife dancers performing a few yards away.

But then, 5690 spent her first year with humans. Balazs says perhaps that has something to do with how easily she fits in on a highly developed tourist beach.

Her presence on Maui is the result of an experiment in identification.

John Hendrickson, a researcher at the University of Arizona, and his wife, Lupe, had developed a biotag for lizards. Called autografting, it involved transplanting a piece of light skin into a dark area of the animal.

Hawaii turtle researchers wondered if it would work with turtles. Balazs was asked to supply a couple of hundred newly hatched turtles, which he collected at French Frigate Shoals, where almost all green sea turtle nesting in the Hawaiian Islands happens nowadays.

Hendrickson then swapped plugs of light bottom shell and dark upper shell. Different patterns were used to differentiate between individuals.

A control group was left unmarked: to see whether the operation had any effect on mortality in the altered turtles. Turtle 5690 was a control, she was not grafted, but when released she did get a metal tag.

The turtles were raised for a year at Sea Life Park, and then Balazs was given the task of getting them back into the ocean.

The experiment was not intended to see whether raising one-ounce babies to dinner-plate size would improve their chances of reaching maturity and reproducing.

That was an unexpected bonus when 5690 showed up on Maui.

Not one of the other 175 turtles has been identified since release, though Balazs feels sure some probably returned to French Frigate Shoals. It was extraordinary that 5690's tag stayed attached for two decades.

It is gone now, beaten off by her flailing flippers as she digs her nests. But today, she has permanent electronic tags implanted in her legs and a temporary radio transmitter glued to her back.

Although it was never intended to see whether head-starting would be a good management tool, 5690 has opened the question. Among turtle biologists, it is a controversial topic.

Balazs tends to think that, done right, it can be a good idea. Whether it is also an economic proposition remains an open question.

It might be a good idea in Samoa or Tahiti, where turtle populations have crashed, he says.

Head-starting a turtle is difficult. "It's an expensive thing to do. It takes a lot of labor, a lot of food."

The turtles nip each other, they share skin infections. Sometimes turtle nurseries can become "a death camp."

"Raising turtles is a bear," says Balazs.

That's why some specialists think it causes too much wastage of a threatened species. "It's a highly controversial idea."

However, 5690 is a powerful turtle-making machine.

In her third nest this year, there were 60 fertile eggs (and some infertile ones). McCarty says he learned that all 60 made it to the ocean.

Fifty-nine did it with help from McCarty and his friends. Nakai and Hau found one laggard in the nest.

Hau notes that he and Nakai have permits to handle turtles. Otherwise, people are supposed to leave them alone.

But that's not to say that people cannot be helpful, and ever since 5690 started visiting Lahaina, a lot of people have gone out of their way to help her.

Balazs cites, for example, Carol Koepke, general manager at Lahaina Shores, who redirected security lighting so it would not interfere with either 5690 or her hatchlings.

"We're happy and delighted to help," she says.

Balazs and Hau are now trying to arrange to get lighting toned down or switched off during the early part of October, when two of 5690's nests, Nos. 6 and 7, are due to hatch out.

Floyd Miyazono, county parks director, said Thursday that he would check a spotlight at Kamehameha Iki, the one that worries Balazs the most, and would cooperate.

And there is one more immediate concern. It looks as if 5690 is heading back to nest an eighth time.

Seven nestings in one season is the most observed in the Hawaiian Islands.

The satellite tracking shows that after each nesting, 5690 swims up to the Honolulu-Kapalua area. Once she swam halfway to Lanai, but for the most part she sticks close to shore.

The latest report Thursday showed her swimming south past Napili, which is the kind of behavior that preceded earlier nestings.

Whether she nests again this season, the eggs she has laid and will likely lay in years to come could lead to more green sea turtle nestings in the main Hawaiian Islands.

"Fast forward 20 years, when the turtles those young people helped come back to nest themselves," Balazs says.

9/1/02 THE MAUI NEWS