

Satellite tracking helps unlock the mystery of green turtle migration

Associated Press

ORLANDO — Each summer, endangered green turtles crawl onto beaches on Florida's Atlantic coast to bury their eggs in the sand. Then they vanish into the ocean and unknown foraging grounds.

Scientists have begun the process of trying to unlock that migration mystery using transmitters that send signals to orbiting satellites.

This past July, three female turtles that nested on Brevard County beaches were outfitted with Walkman-sized transmitters.

One of the \$3,500 transmitters failed before the turtle left the breeding area. But the other two continued beaming signals for three months while the turtles hugged the Florida coastline, migrating southward and then westward along the Florida Keys.

One turtle stopped in the Atlantic Ocean just off the lower Keys. The other continued before settling near the Marquesas Keys, about 20 miles west of Key West.

Although the signals ceased altogether in October, the scientists believe the turtles may have reached their final destinations — the lush sea grass beds off the Keys.

"At this point, it's a working hypothesis that maybe many of these adult green turtles forage in that area," said Lew Ehrhart, a sea turtle expert at the University of Central Florida.

"It is possible that they were delaying there temporarily and were going to jump off to Nicaragua or Cuba or somewhere. But our data tell us they stopped moving."

The revelation was surprising, Ehrhart said, because there have been few sightings of adult green turtles in that area in recent times, despite heavy fishing pressure and boat traffic.

"It's a little hard to believe that we wouldn't have known there are adult green turtles there, but green turtles don't like to show their backs too much."

Knowing where the Florida population of green turtles lives is considered crucial for bringing back the species from the brink of extinction, especially if the turtles cross into the waters of foreign na-

tions that may not protect them as an endangered species.

"If you don't know where the animal spends its time, you can't learn much about the threats that occur there," said Barbara Schroeder, a scientist with the state Marine Research Institute.

Ehrhart and Schroeder teamed with George Balazs, a National Marine Fisheries Service scientist who has done similar tracking of green turtles in Hawaii. The scientists, who plan to report the findings to a sea turtle symposium in February, hope to get funding to repeat and perhaps enlarge the study next year.

Green turtles are among the five species of sea turtles that migrate through Florida waters. They grow to about three feet, weigh more than 300 pounds, and have smooth, olive-brown shells. The air-breathing reptiles are descended from the earliest marine turtles that lived 150 million years ago.

Green turtles, which graze on algae and sea grasses, once swarmed the Caribbean region by the millions. But early European explorers savored their sweet meat and discovered they could be kept alive on ships for long periods of time. They were hunted for several hundred years and many were exported to Europe. Many of the turtle rookeries in the Caribbean were exterminated.

The known threats today are many: hunting, coastal development, pollution, the destruction of reef and sea grass habitats, and entanglement in shrimp trawls and fishing nets.

The Florida population, which nests along the east-central Florida beaches, is one of the largest remaining in the Caribbean region and is the only one of about three dozen distinct populations that nests in the United States.

This past summer, there were more than 1,100 nests counted on the Archie Carr National Wildlife Refuge in Brevard County — the most ever, Ehrhart said. The year before, there were just 87. The refuge was established to protect the nests.

Ehrhart said scientists now believe there are as many as 850 breeding females in the population, up from about 375 a decade ago.

PAVANA CITY, FLORIDA

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Tuesday, December 20, 1994

THE NEWS HERALD IC

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PAGE 5C