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 From the Los Angeles Times

Sea turtles explore new, urban frontier

The massive endangered animals normally spend their lives at sea. Scientists are closely studying the progress of two breakaway colonies that have settled in the San Gabriel River and San Diego Bay.

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In the foamy chop of the warm-water discharge flowing into the San Gabriel River from a Long Beach power plant, a green sea turtle, wide as a manhole cover, materialized Friday just a few yards from shore.

A few minutes later, an even larger sea turtle surfaced in the murky water near the plant's thicket of steel scaffolding, steam vents and transmission lines.

Green sea turtles usually have tropical haunts -- teeming coral reefs or white sandy beaches where they lay eggs -- but these chunky titans live more than a mile upstream in one of Southern California's most ecologically degraded rivers.

Little is known about the colony of at least six urban sea turtles. But a joint study by the National Marine Fisheries Service and the Aquarium of the Pacific aims to determine, among other things, what they're doing in there.

"Right now, it's a small group of what might be considered oddball turtles," said Peter Dutton, a senior researcher with the fisheries service. "But we have a lot to learn about them. Are they part of a more complex sea-turtle migration dynamic than we ever imagined, or just lost wanderers?"

Scientists also want to know how the federally endangered animals are adapting to the unique challenges they face in the 100-yard-wide river channel at the Los Angeles County-Orange County line, next to the Los Angeles Department of Water and Power's Haynes Generating Station. Those challenges include speedboats, water skiers, baited hooks, urban runoff, tons of garbage and harassment.

On Friday, a green sea turtle that had been trapped for weeks in the whirlpools of an intake channel near the power plant a few yards east of the river was rescued by a team of divers hired by the DWP. The 45-pound turtle was taken to the Aquarium of the Pacific, where veterinarians discovered a hook in its rear left flipper and a hook and a 3-inch gash in its front left flipper.

This week, witnesses told federal wildlife authorities that several fishermen had repeatedly tried to snag the animal. One man, they said, hooked onto one of its rear flippers and struggled for about an hour and half trying to bring the animal to shore. Eventually, the fishing line snapped and the turtle swam free.

Aquarium officials said they planned to release the turtle into the river in the vicinity of the power plant.

For years, wildlife authorities have received occasional reports of possible sea turtles in the river from people who fish its brackish stretches north of Alamitos Bay for halibut, sand bass and perch. One of the first scientists to make positive identification was fisheries service biologist Joseph Cordaro.

"I got a telephone call in 1988 from a jogger claiming to have witnessed a startling phenomenon," Cordaro recalled. "He said, 'Do you guys know there is a green sea turtle in the San Gabriel River?'"

Cordaro was skeptical. "I asked him if the turtle had claws on its feet," he said. "If the answer is yes, which it almost always is, it's a freshwater turtle. It saves me a trip."

But the caller insisted it was a sea turtle. "So I went out to see for myself," he said. "The turtle surfaced. I muttered, 'I don't believe what I'm seeing.'"

Nonetheless, subsequent reports of sea turtles cruising the river were dismissed as anecdotal evidence of individual turtles, most likely strays from a colony of sea turtles discovered in the late 1970s near the warm-water discharge of a San Diego Gas & Electric Co. power plant in San Diego Bay.

That colony was initially studied by Margie Stinson, a professor at Southwestern College in Chula Vista. Its matriarch is a 570-pounder whom Stinson named Wrinklebutt.

Stinson initially concluded that six or seven turtles -- including Wrinklebutt -- were attracted to the warm-water effluent of the power plant but spent most of their time elsewhere.

Later studies, however, revealed that the San Diego Bay colony actually includes at least 100 turtles, all of them permanent residents.

"We used to think the San Diego Bay group was the northernmost foraging colony of green sea turtles," Stinson said. "But it looks like the San Gabriel River colony has us beat for that title."

Scientists finally confirmed the existence of the San Gabriel River colony in May.

Green sea turtles, which can grow to 5 feet long and weigh more than 500 pounds, are an ancient species dating back as far as 30 million years.

Biologists suspect that the turtles nest on beaches more than 1,000 miles to the south, on islands off the Pacific coast of Mexico. But that's just a guess at the moment.

In years to come, genetic analysis, satellite telemetry, flipper tagging, vital statistics and daily monitoring could help answer myriad questions:

Do they travel here together or individually? To what genetic stock do they belong? Exactly how many are in the river? What are they eating?

Juvenile turtles are omnivorous. Adults tend to eat vegetation such as eel grass. But local fishermen say that, in the San Gabriel River, green sea turtles of all sizes have been known to attack baited hooks.

Biologists also want to know why turtles that hang around the warm discharge of urban power plants seem to mature at a much faster rate than those residing in their primordial grounds off Hawaii and Australia.

"Instead of taking the usual 30 years to mature in nature," Dutton said, "we believe sea turtles by these year-round sources of warm water are maturing in eight or nine years."

Such mysteries have made a narrow, heavily industrialized strip of the San Gabriel River an improbable epicenter of cutting-edge herpetological research.

On a recent weekday, biologists from the fisheries service and Aquarium of the Pacific gathered at a guardrail overlooking the power plant's effluent stream, which typically runs about 10 degrees warmer than normal river water, and scanned the area.

"Eventually, we'll be recruiting volunteers from the community to help us get a clearer picture of what the animals might be doing here," said Lance Adams, chief veterinarian at the aquarium and leader of a new San Gabriel River sea turtle monitoring project.

As he spoke, stingrays patrolled the shallows near shore. Brown pelicans glided overhead. A spotted sandpiper explored the muddy bank. A large silver fish known as a mullet splashed on the far side of the channel. Trucks rumbled over a nearby bridge.

"There's one!" someone yelled as a sea turtle popped its head above the surface, about 100 feet downstream.

Seconds later, it plunged back into the depths of the dark, slow-moving water.

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