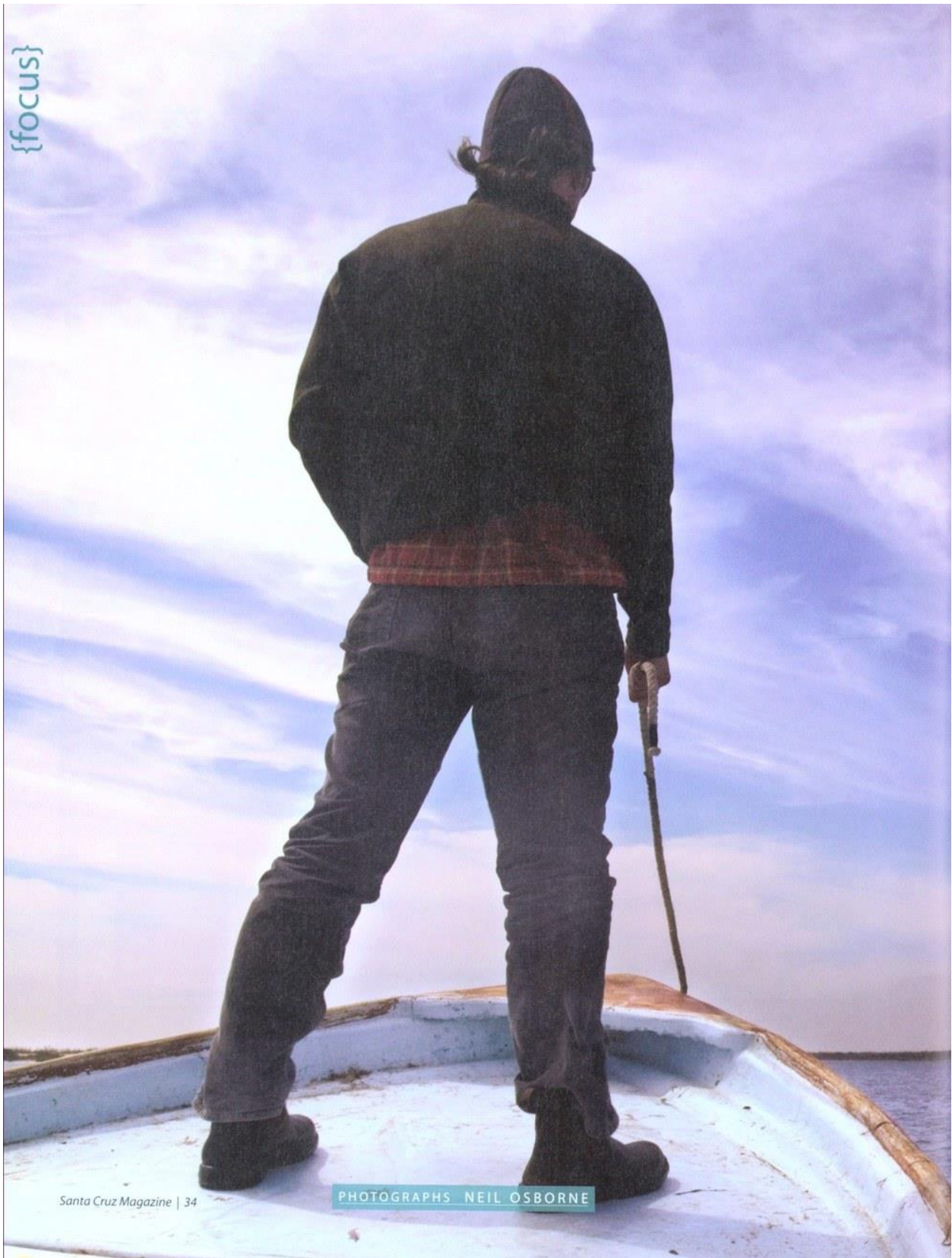


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ON THE TRAIL OF THE SEA TURTLE

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Maverick scientist takes a different path
to save a threatened species

By GENEVIEVE BOOKWALTER

When Wallace "J" Nichols began studying endangered sea turtles in the dusty, small towns of Baja, Mexico, he prided himself on becoming so close with the residents they would invite him over to feast on the animal he was trying to save.

There, just after the sea turtle was slaughtered and before it was boiled on the stove, Nichols would slip a scalpel and small plastic tube from his pocket. He would quickly cut a slice of skin or muscle from the turtle and carry it back to his lab, where those samples evolved into a genetic database of the thousands of turtles that were dying in Baja.

It was that trust Nichols developed with local residents, allowing him to gather crucial data while they broke federal law, that he deems critical to saving the endangered species.

But when Nichols told that story at a conference of sea turtle researchers, not everyone understood the value Nichols placed on these relationships.

"You talked too much about the little people," one commented later.

For Nichols, however, that was the point.

Nichols, 40, of Davenport, is part of a new breed of scientist who preaches conservation while studying a creature threatened with extinction. He frowns on colleagues who practice "unbiased science," just jotting down numbers and crunching data in a lab, he said.

To Nichols, turtles are a social movement.

"The science is kind of worthless unless it's tied to something bigger," Nichols said. Otherwise, "I can tag turtles the rest of my life, track them and watch them disappear."

Nichols is credited with proving that loggerheads swimming in the waters off Baja will migrate back to their birthplace in Japan when they are ready to mate and lay their eggs. He was the first to track a female sea turtle, Adelita, on her year-long, 9,300-mile swim from Baja to Japan.

Along with traditional monitoring efforts, Nichols has spent nights Dumpster diving in Baja, hauling out hundreds of barbecued turtle shells to prove to Mexican officials that the animals remain popular in tacos, and he has petitioned Mexican, Latin and South American Catholic bishops, asking them to discourage turtle dinners during Lent. He even organized a soccer tournament during hunting season in Malaysia to occupy those who would otherwise spend the day poaching turtles.

"He's gone somewhat of a different path," said Frank Paladino, a biology professor at Indiana-Purdue University in Fort Wayne who studies turtles in Costa Rica.

"He feels somebody has to be in that trench and at the bottom and work with those people down there, because

Nichols heads out on Magdalena Bay to check the nets used to trap turtles for research. Juvenile turtles stay in this bay for about 25 years as they grow. The young turtles drift in and out of the inlet with the tide, which is where Nichols traps them, recording their growth and recovery. There are five kinds of turtles in Baja: loggerheads, greens, olive ridleys, leatherbacks and hawksbills. Nichols and his work are featured in Leonardo DiCaprio's new environmental documentary, "11th Hour."

nobody really pays attention to them and that's where the action is," Paladino said.

Nichols' efforts seem to be working.

Baja, Mexico, is one of the few places where five of the seven species of sea turtles come together. The turtle population began to dwindle in the 1970s, as demand for turtle on Mexican dinner plates grew and supply dwindled in the Atlantic Ocean. The Mexican government outlawed turtle hunting in 1990, two years before Nichols stepped onto the scene.

By that time, the 25,000 female green turtles that historically nested in Michoacan and foraged off Baja had been reduced to 250. Other populations experienced similar drops.

Now, more than 1,500 female green turtles nest on Mexico's Pacific beaches each year, numbers not seen since the early 1980s. And they continue to rebound.

"My hunch is we were just in time," Nichols said. But much of that credit, he says, goes to residents who have decided to change their diet.

As Nichols tells some of these tales, he is driving a white 1991 Ford F150 pickup on Highway 1 in Baja, his 5-year-old daughter Grayce at his side. There is no air conditioning, and the dry heat blasting in tops 100 degrees. Grayce lets her blonde hair whip wildly around her head. Nichols' angular face is stoic and unshaven; his hair, shoulder-length and slightly graying, somehow stays mainly in place.

The road is one Nichols has driven hundreds of times.

The road he took to get here, however, was more unusual.

Nichols' passion for turtles began when he was child and spent summers on the Chesapeake Bay, a Virginia/Maryland waterway that is the largest estuary in the United States. Obsessed with dinosaurs and the ocean, Nichols would catch snapping turtles in nearby creeks, paint a white X on their shells and let them go. Catching them again helped him learn how many turtles lived in the creek, a practice he does on a much larger scale with turtles in the ocean.

In a way, Nichols said, he feels a personal connection with the turtles. Sea turtle mothers lay their eggs on the beach and leave, never meeting the offspring that hatch two months later. When the youngsters return to the beach as adults, they inevitably mingle with their next-of-kin, he said.

His story follows a similar path.

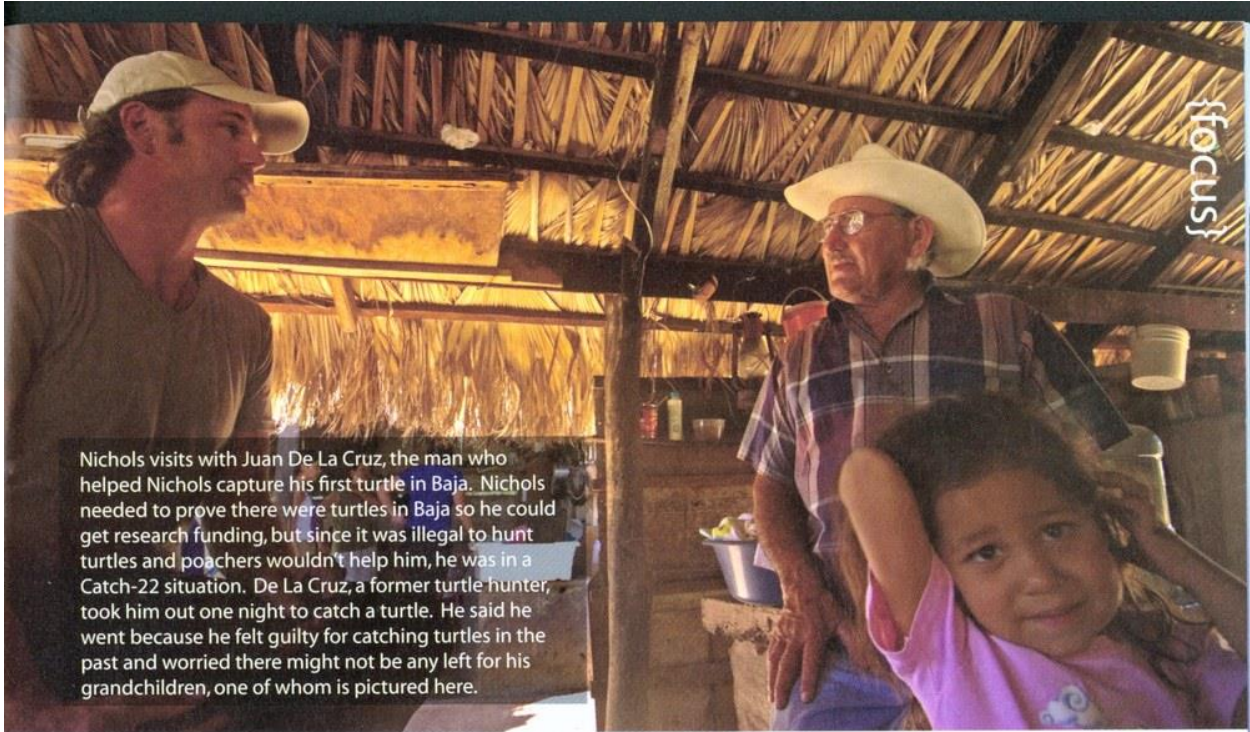
Nichols was adopted as a baby by a couple who could not have their own children. Growing up in New York and Chicago, he shared a home with one adopted brother, four foster sisters and a number of foreign exchange students.

"Ours was the house in our neighborhood you went to during holidays if you were alone," Nichols said. "I thought that was normal."

Nichols didn't meet his birth mother until high school graduation. He met his six biological siblings and birth father a few years later, and the resemblance was immediate. His birth mother, a retired teacher, was president of a



Members of a grassroots conservation organization called Grupo Tortugero head out to examine turtle carcasses that wash up as bycatch on Isla Magdalena, one of the islands in Magdalena Bay. The men's route is along what is known as the Cardboard Highway, named for the pieces of cardboard laid down so vehicles don't sink into the sand.

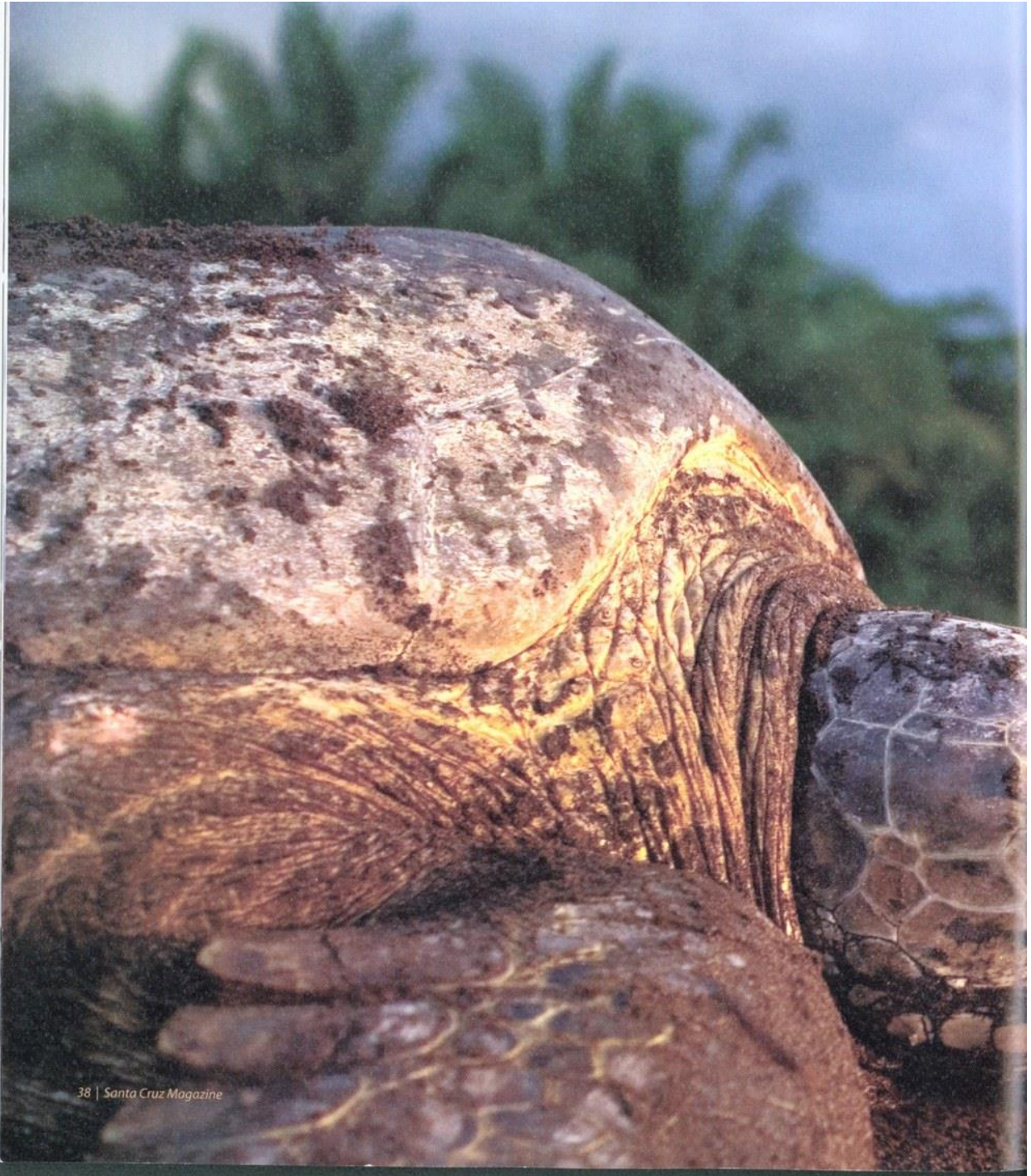


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Nichols visits with Juan De La Cruz, the man who helped Nichols capture his first turtle in Baja. Nichols needed to prove there were turtles in Baja so he could get research funding, but since it was illegal to hunt turtles and poachers wouldn't help him, he was in a Catch-22 situation. De La Cruz, a former turtle hunter, took him out one night to catch a turtle. He said he went because he felt guilty for catching turtles in the past and worried there might not be any left for his grandchildren, one of whom is pictured here.



The rotting carcass of a dead sea turtle lies on a beach on Isla Magdalena. Scores of greying shells and turtle carcasses litter the sand, most of the turtles die as bycatch in gill nets set to catch halibut.



river-conservation organization in Montana. His brothers and sisters, he said, include a writer, teacher, painter, sculptor and chef.

From his birth mother, he said, he received his sense of conservation.

From his adoptive parents, Nichols said, he inherited a "the-more-the-merrier" attitude, which he uses now to recruit unlikely allies to help save the sea turtle. In tiny Mexican fishing villages, many of them founded on turtle and shark hunting, Nichols employs current and former poachers. The men show him where the shelled reptiles feed and drive him across the water in their quick, powerful boats. He hires local women to cook fresh tortillas for students and scientists.

"Even the gangsters like 'J' (Nichols)," chuckled Julio Solis, 30, who was still poaching turtles when Nichols hired him in 2000 to shuttle students and researchers around the 31-mile long Magdalena Bay on the west coast of Baja California Sur.

"They ask, 'When is the gringo coming?'" Solis said

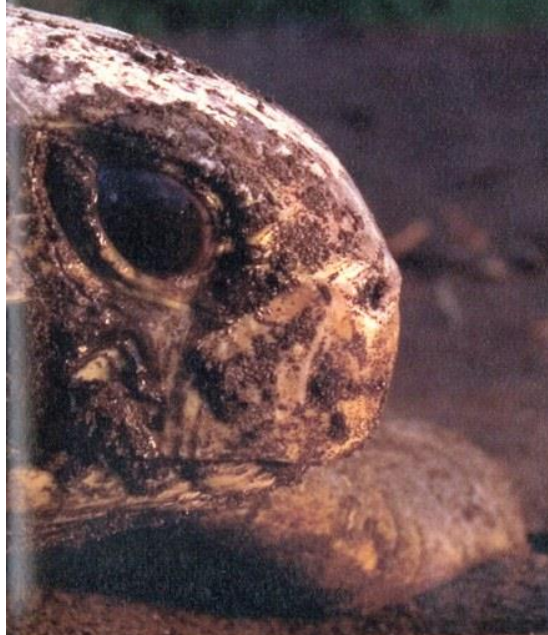
in the casual English he picked up from the students with whom he works.

With the money Nichols has received through grants and other funding sources, by now he could have purchased a powerful boat to use for his research. He also could have shipped food down from San Diego and never spend time with the locals.

But "there's a lot of information about sea turtles in the heads of fishermen," Nichols said. They know the last time they saw a certain species, or where they caught turtles with their grandfather when they were young. Without them, he said, his research would not be as successful.

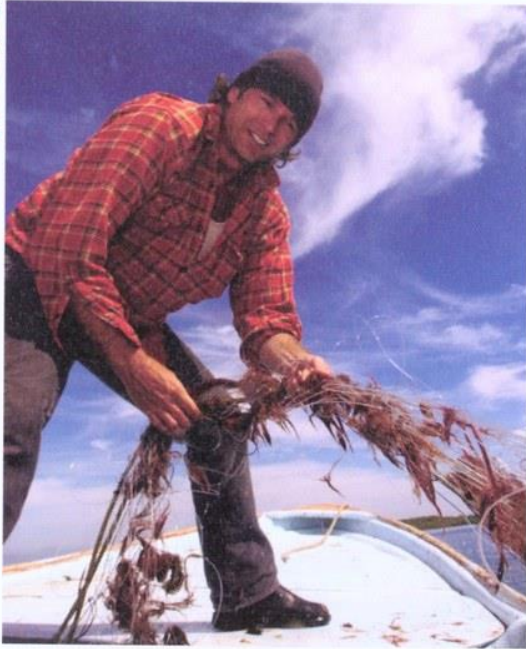
In addition, he said, many he employs develop job skills and learn English from the students and researchers they serve. That also gives them alternatives to poaching.

Solis, for example, said he gave up turtle hunting as he learned more about the animals Nichols was trying to save. While Solis once thought of his work with Nichols as "just a job," he now sets the nets and performs the research on turtles that he catches.



Photographer Neil Osborne caught this green turtle making her way to the ocean after laying her eggs. The exhausted sea turtle had to rest every few yards, but then would move aggressively toward the ocean. Osborne took this shot just after sunrise, following the turtle on her tired journey to the ocean where she slipped into the water and, in a moment, was gone. Scientist Wallace "J" Nichols is working to save turtles like this. This shot was taken in Costa Rica.

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Nichols checks his research net for turtles at the mouth of the remote Magdalena Bay. He and other researchers put out the monitoring nets for 24-hour stretches, staying overnight on their boats to check the nets regularly and make sure none of the shelled reptiles are hurt.

Seven years after he was hired, Solis also heads the Magdalena Baykeepers, a member organization of Bobby Kennedy Jr.'s Waterkeeper Alliance. He has traveled to San Francisco and other destinations for conventions and to talk about, and be recognized for, his work.

His accomplishments also have others in town thinking twice about their choices.

When Nichols visited Puerto San Carlos in March, he was approached by a poacher whose boat Nichols employed years ago. The poacher didn't hunt turtles, but he decided not to stay on with Nichols and instead continue fishing illegally for abalone, lobster and other mainland delicacies.

But this visit, the poacher said, he was thinking about giving that up. He approached Nichols for a job.

After earning his doctorate at the University of Arizona and studying in Mexico as a Fulbright Fellow, Nichols isn't ready to get back in the classroom. But if he ever did return, he said, he would study neuroscience to learn what triggers moments like the one the poacher had, when he realized he didn't want to hunt sea creatures anymore and instead wanted to help conserve them.

Even in Third World countries, where the money from poaching lures many fishermen, there are still those who want to protect the resources of their native waters, Nichols said.

"What triggers that come-to-Jesus moment? How does it feel?" Nichols asked. "How can we make more people want it?"



Wallace "J" Nichols drives north on Highway 1 in Baja, Mexico, with his 5-year-old daughter Grayce, to visit a former turtle poacher. Nichols often brings his daughter on his research trips, where she serves as a mini turtle ambassador. He lives in Davenport with his wife, Dana, and his other daughter, 2-year-old Julia.