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MEXICO'S TUR

How one country is battling poachers and saving sea turtles

GEORGITA RUIZ, the chief wildlife cop in Oaxaca state in southwest Mexico, remembers an afternoon three years ago when her inspectors called her from outside Juchitán. Juchitán, off the Gulf of Tehuantepec in Oaxaca, is to turtle-egg traffic what the Colombian city of Medellín is to cocaine. Her agents had just stopped a truck with more than 500,000 sea turtle eggs aboard, the largest shipment ever confiscated in Latin America. They were rightfully nervous. "My men carry no arms," she says. "They needed support."

Sea turtle eggs, which look like soft Ping-Pong balls, are the basis of a huge commerce in Mexico—or at least they were. All but one of the world's sea turtle species, weighing from 70 to 400 pounds, lumber up from the sea onto Mexican beaches to dig nests and lay eggs. Since before the coming of the Spanish conquistadors, people have used the eggs both as food and in cultural celebrations because they are thought to contain rejuvenating as well as aphrodisiac properties (they are, in fact, highly nutritious, but there is no evidence that they are aphrodisiacs). But the key for turtle survival is for those eggs to hatch. In 1971 Mexico banned egg collecting, and in 1990, with the fate of sea turtles in question, finally prohibited the harvest of the turtles themselves with a landmark turtle-protection law.

Last year, to interview people like Ruiz, I traveled all over Oaxaca by bus—along the Pacific coast from Puerto Escondido to Salina Cruz and into the highlands, to the capital city and to Juchitán—looking for evidence that the Mexicans were making progress in their professed goal to save the turtles. I visited a museum built near a former turtle-slaughtering facility, watched squads of Mexican marines patrolling the nesting beaches and accompanied former turtle hunters capturing specimens for biologists. I also boarded shrimping boats that once inadvertently caught turtles in their nets and shopped furtively in local markets for turtle eggs. What I witnessed was an unprecedented war on turtle poachers that, though still shaky and unsuccessful in some respects, is the backbone of a turnaround in the way one country treats some of Earth's most intriguing sea creatures.

AFTER TWO DECADES of battling sea turtle poachers, Mexico has become serious—and successful—in saving the big reptiles. These green turtles, photographed in the early 1980s, were being held for shipment to market when marines discovered the pen and poachers. The turtles were freed, but so were the poachers. In recent years, poachers have been handled more aggressively, improving turtle prospects.



BATTLE WARS

By Michael Tennesen



GEORGE H.H. HUEY

How Ruiz and her agents responded on the day of that big bust typifies the progress. Ruiz, the Oaxacan state chief of Profepa—Mexico's version of the U.S. Fish and Wildlife Service—put the phone down, jumped in her car and drove to the site, arriving in the middle of the night. The shipment had come off the Pacific beaches

where, for several days, thousands of endangered olive ridley sea turtles had arrived under cover of night to lay their precious eggs.

The inspectors had acted on a tip from an informant who had seen a 30-ton truck near the nesting beach. The truck was headed for Juchitán, and inspectors raced to intercept it. Passing the vehicle, they noted dripping salt water and a characteristic sulfurlike odor of turtle eggs.

The unarmed inspectors went ahead, rallied state police and set up a roadblock. But two corrupt federal officers accompanied the truck. When the vehicle pulled to a stop, it was state police against federal police in a land where gunfights

between rival enforcement bureaus are not uncommon.

Ruiz counts this moment as a turning point in the battle against sea turtle egg traffic in Oaxaca. It was a test of the wills of law enforcement. Would the agencies cooperate to enforce environmental regulations? Or would the old law of corruption and disrespect for environmental safeguards dictate the rules of the game? In the end, federal officers backed down and sped away. When Ruiz arrived, she called the army. The eggs were eventually destroyed at sea so they could not be sold again.

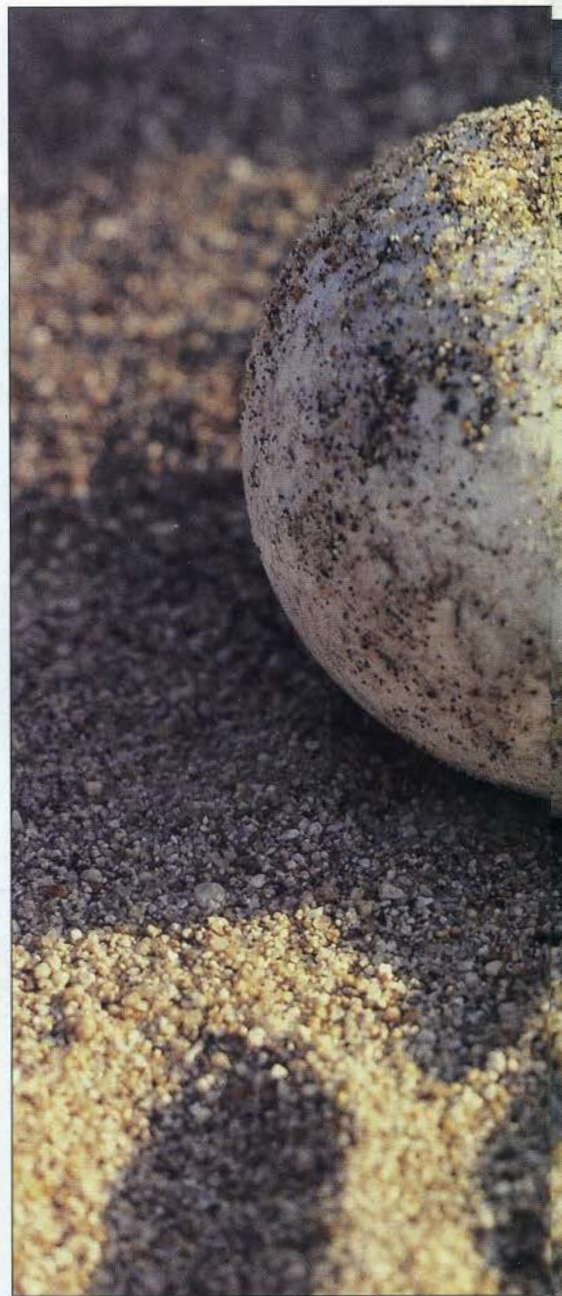
Despite such successes, there are still serious problems with sea turtle protection in Mexico. Fishermen near Baja and the Sea of Cortez take the oceangoing reptiles for meat. Poachers on the Pacific beaches harvest them for their skins. Builders put up habitat-destroying commercial developments, such as one proposed at Xcacel, a nesting beach in the Yucatan for loggerhead sea turtles. And the traffic in eggs lingers, particularly in Oaxaca.

Even so, the numbers taken are way



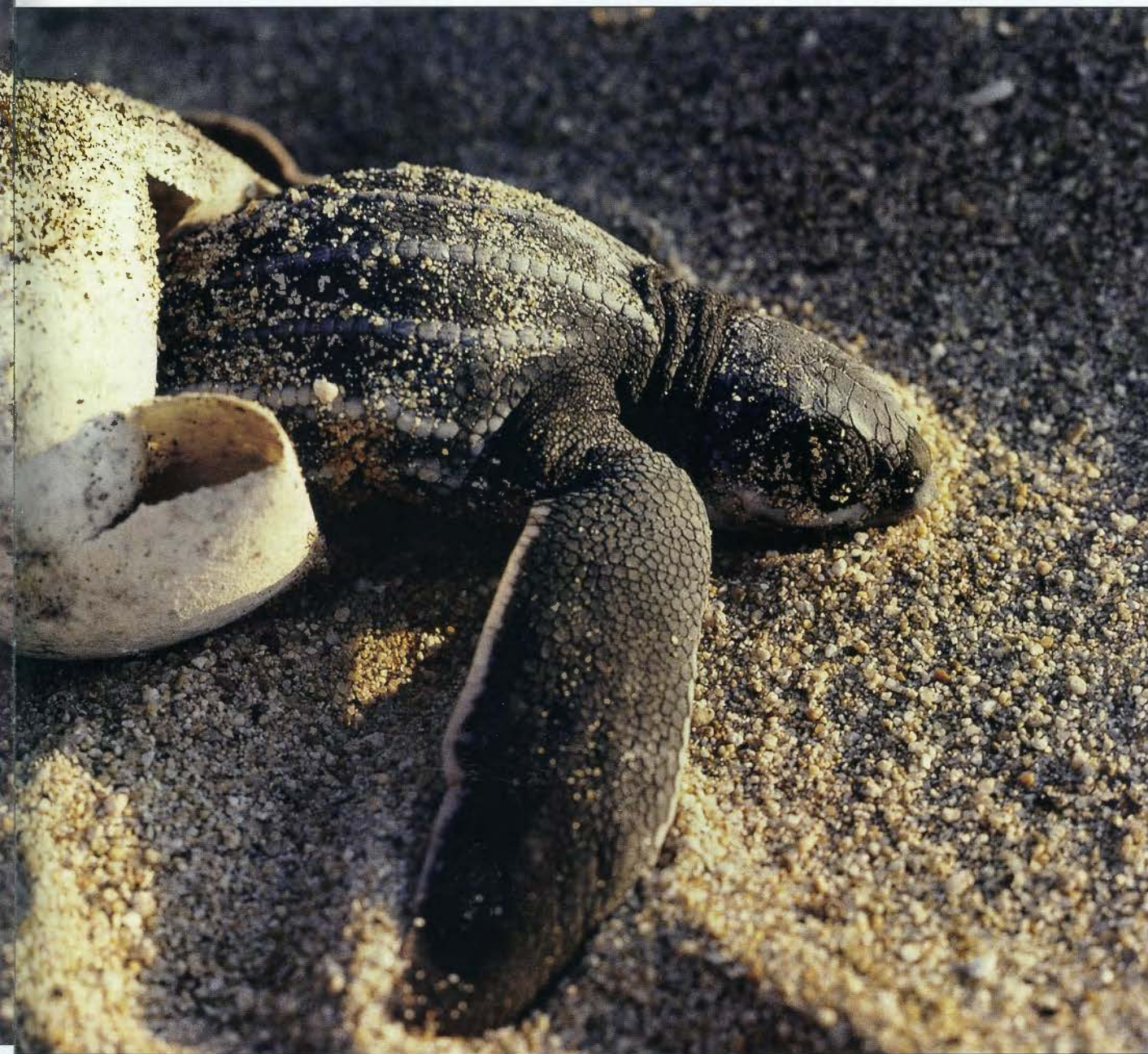
MICHAEL TENNEN

CRACKING DOWN on trade in turtle eggs late last year, inspectors with the Mexican wildlife agency Profepa dump seized eggs into the sea (above) to remove them from the marketplace, where they are still prized for their taste and alleged restorative powers. Now infertile, the eggs cannot hatch. Normally eggs hatch underground, but this one (right) was dug up, possibly by a dog. The hatchling, a leatherback, reached the ocean.



down. Juan Carlos Cantu of Greenpeace Mexico, a sea turtle authority who has studied the problems in Mexico, believes that there were as many as 150,000 sea turtles killed each year before the ban, but only about 25,000 taken today. According to Cantu, "Sea turtles have become one of the most important issues in Mexico today."

John Audley, former director of international affairs at the National Wildlife Federation and now coordinator for trade policy at the U.S. Environmental Protection Agency, agrees. "There is a link between Mexico's culture and its sea turtles that is



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difficult for Americans to appreciate," he says. "You visit the ruins and you notice sea turtles etched in stone. I take the country's efforts in this area very seriously."

Sea turtles like the ones Audley describes spend most of the year at sea, some making enormous migrations across entire oceans. Mexico has six of the world's seven turtle species: the loggerhead, hawksbill, leatherback, Kemp's ridley, olive ridley and green, plus the black (the latter considered a subspecies of green turtle by some biologists, a species unto itself by others).

All come ashore to lay eggs, but for

most, it is a solitary affair. Only the olive ridley and its Atlantic cousin, the Kemp's ridley, stage *arribadas* (mass arrivals of up to 50,000 sea turtles). In Oaxaca, great fleets of olive ridleys flounder out of the ocean five times a year in summer and autumn on several nights close to the new moon.

The turtles emerge from the water, flailing their flippers to propel themselves up the beach where they scoop out a 2-foot-wide hole with their hind flippers. Bobbing their heads as they strain, they drop their eggs—70 to 100 of them—into the hole.

Once hatched, the newborns must run a

gauntlet of vultures, seabirds and crabs that grab them before they get to sea. Mortality is high. Fewer than one in 1,000 (one in 10,000, according to some estimates) will live to maturity. However, as the result of the 1990 protections, the number of turtle nests on the beach has risen from 70,000 to close to a million. That means there are perhaps 70 million to 100 million eggs.

Not surprisingly, the fruits of that success have also become a tempting target to organized thieves, whose actions sometimes put conservation agents at risk. According to Ruiz, the illegal sea turtle egg traffic attracts the same type of characters as does the drug trade. Wildlife inspectors traced the ownership of the truck holding the 500,000 eggs to the suspected kingpin of egg traffic in Juchitán. The suspect, a woman, and her band had just been in a gun battle with the federal police and the army. Although a federal magistrate issued a warrant for the woman's arrest, at first no one even dared to deliver it (although she was subsequently apprehended).

Such defiant disregard for the law in a poor country where the harvest of ready eggs can put food on the table or add cash to an impoverished household might seem difficult to reverse. That, coupled with a long tradition in Mexico of public officials on the take, made progress seem unworkable. But, as I discovered, all that is changing as new environmental values come into being.

Proof of the changing environment comes in the support Mexico now gets from state and federal police, and from the armed forces. Mexico has assigned a squad of marines round the clock, one to each of the sea turtle nesting beaches of La Escobilla, Morro Ayuta and Barra de la Cruz, all on the Pacific coast of Oaxaca. Federal, state and local police cooperate with Profepa, setting up roadblocks to intercept traffickers.

Though intervention like this has prevented the wholesale slaughter of the turtles, such efforts still cannot stop all poaching of eggs. "We would need a guard for every villager on the coast, and a guard to watch every guard," explains Javier Vasconcelos, director of the government-funded National Mexican Turtle Center in nearby Mazunte.

Still, the situation today is a big improvement, as witnessed one day when Pro-



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OFF TO THE SEA, a green turtle hatchling begins a long odyssey to adulthood. Just one in 1,000 (one in 10,000, according to some estimates) will live to maturity. So they can emerge to breathe, the hatchlings swim close to the surface. This one was never more than 2 feet deep. All but one of the world's sea turtle species lay their eggs on beaches in Mexico, making the country's efforts key to turtle protection.

fepa Inspector Gustavo Apodaca stands on the fisherman's pier in Puerto Angel. "Uh-oh," he announces. "We've got a problem."

Across the beach, the Mexican marines are descending upon a 20-foot open dory that has just pulled into port, holding 12 live olive ridley sea turtles. A film crew from Mexico City had come to photograph the arrival of nesting olive ridleys but had grown tired of waiting. Crew members had asked Apodaca if they could capture some turtles and stage shots on the beach. The inspector told them they would have to get written permission from the National Institute of Ecology, the port authority and Profepa, but the crew members, on other advice, decided all that was unnecessary.

Now cameramen—in slacks and gold jewelry, with cell phones hanging out of their pockets—argue with inspectors and marines as the turtles are released back to the sea. That evening, truckloads of video equipment sit idle in the port. Crew members leave the next day, with no pictures. In the past, a TV crew would have had no trouble greasing a few palms with cash to get what it wanted, but not today.

One explanation for the change is that arrests of poachers are given a high profile by the international press. According to Ruiz, there is almost a competition among the different agencies over which can make the most arrests. The incentive has apparently gone from cash to publicity.

But Vasconcelos sees education rather than enforcement as the ultimate goal. "If we change people's attitudes toward the environment, then we won't need to make arrests," he says.

I see some hope for this at the National Mexican Turtle Center in Mazunte. The center is a large complex of sea turtle ponds and exhibits dedicated to education, conservation and research. Settlers who moved to this area in the second half of the century were farmers and fishermen until the '70s when a marine turtle slaughterhouse was constructed here. From then until the 1990 ban on killing sea turtles, Mazunte was the center for turtle exploitation. Legally about 30,000 animals a year were slaughtered, but some environmentalists believe the illegal take may have been more than twice that.

Since 1990, the number of turtle nests on Mexican beaches has risen from 70,000 to about a million. That means there are now between 70 million and 100 million eggs.

TO THE RESCUE, Mexican marines release 12 olive ridley turtles. The turtles had been captured last November by a film crew from Mexico City hoping to stage shots on the beach. The crew members were arrested because they'd neglected to get permission. In the wake of a new law in 1990 and strict enforcement, the number of sea turtles killed each year in Mexico has dropped from about 150,000 to an estimated 25,000 animals.

On a bright tropical morning, I accompany several biologists from the turtle center to the waters off Escobilla Beach to tag sea turtles and to study skin tumors that plague them. The warm waters are filled with the animals. We spot one every 50 yards. Most are olive ridleys, one of the smallest of the sea turtles, weighing 70 to 88 pounds. Their skin is covered in various shades of olive green and yellow.

The biologists employ former turtle hunters to help capture the animals. One hunter waits in the bow as the boat rushes up on a turtle, then leaps into the water, wrestling the reptile into the boat as the others laugh and kid over his struggles.

That night the arribada begins at Escobilla Beach. By midnight the sand is covered with hordes of female turtles. They fill the air with the soft sound of flippers digging out nests and a rhythmic *thump, thump, thump* as they rock their bodies back and forth to pack the sand over the eggs they've laid.

The following day, most of Profepa's inspectors are pulled away from other work involving fisheries, forestry, wildlife and pollution and are put full force to stop turtle egg traffic. During the arribada, says an exhausted Apodaca, he is lucky to see his family.

Profepa gets help from a number of volunteers in the fishing communities, which the agency takes pains to cultivate. According to Ruiz, "Either we have the fishermen as enemies and they are always on guard of us, or we take them in as allies and convince them of what we are trying to do." Apodaca, himself, started as a volunteer.

On a windy afternoon in Salina Cruz, a port 100 miles south of Mazunte, I accompany Profepa inspectors as they boat three miles out to sea to dump this month's take of more than 16,000 confiscated eggs. As mid-afternoon waves soak us and toss the boat, the inspectors empty egg-filled bag after egg-filled bag into the sea, contraband that will never reenter the illegal trade.

That evening I take a bus ride over the mountains to Juchitán. Here the use of turtle eggs is part of the Zapotec Indian culture. The Indians use them at christenings, weddings and parties, mimicking the gathering of eggs in their traditional dances. I am told vendors here still sell turtle eggs in the central market. I intend to arrive in daylight, but the egg burial at sea keeps me longer than planned. The central market is 15 blocks from the bus stop. I see no other tourists in town. Most people ignore me.

The central market surrounds the plaza in the middle of town. There are fruits, veg-



etables, candies, canned goods and clothing for sale. In the corner of the square is an area where the vendors are dressed in more traditional Indian attire. Their goods are spread out on small tables, and the tables are packed tightly together. Sausages, cheese and flat bread are displayed on some, sea turtle eggs on others. A bowl of dried eggs sits on one table, fresher eggs on another. Altogether, there are perhaps 3,000 eggs on display here, some looking as if they'd come from the beach today.

A woman in her forties buys six of them. Another older woman buys three. The vendor says you can boil the eggs, but most people simply put salt on the tongue, swal-



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low the egg raw and chase it with lime—just like a shot of tequila. “*Muy sabrosa* (very delicious),” she says.

The Zapotec Indians here are part of the same culture that has been in open rebellion with the government in the neighboring state of Chiapas. Mexico has been under one-party rule for more than 70 years, but recent elections have seen the emergence of rival political entities. In Oaxaca, there is some anti-government feeling, and Juchitán has been under an opposition party rule for many years.

Ruiz, who began her career as a veterinarian, admits she herself was once critical of government policies. But now she sees

their importance. This is why she puts so much emphasis on volunteers in the community, trying to bring people together and to build a common environmental ethic.

Vasconcelos agrees with her grass-roots efforts. He brings schoolchildren to the turtle center for much the same purpose. “If we can teach the children about nature—the environment, as well as the turtles—then maybe there will be no poaching. Through education, we can prevent the crime from happening in the first place.”

Michael Tennesen, a frequent contributor to International Wildlife, spent ten days on assignment in Oaxaca reporting this story.