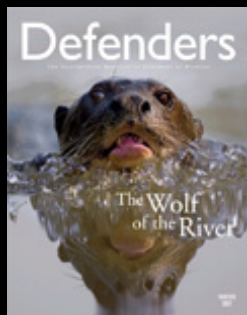


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The Wolf of the River

Giant otters make their last stand in the rivers of South America

By Heidi Ridgley

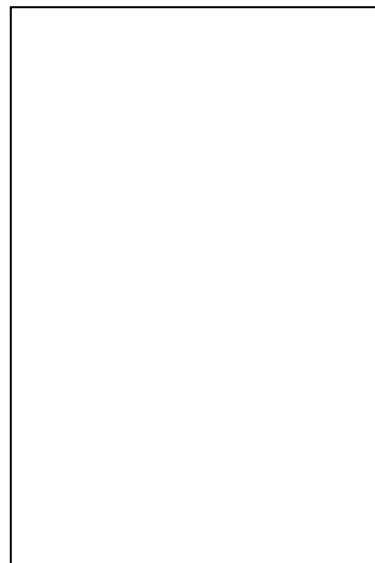
Their heads pop out of the water with a snort, muzzles first with whiskers protruding and fangs the color of polished pearls. Biologist Charlie Munn recognizes one of the giant river otters by the large, white splotches on its throat. It looks like it's wearing a bib. "Each throat pattern is unique, like a fingerprint," he says. "This is the dominant male."

The other otter floats with its face angled straight down beneath the river's surface, its head moving erratically in stops and starts. "Look," Munn whispers. "It's trying to follow something underwater."

The two animals don't linger long. As abruptly as they appeared, they turn tail and swim toward their riverbank dugout—which is now buzzing with activity from within. Hidden from view, the whole family has started making a racket. It sounds like the persistent snarl of a dog wrestling with a pull-toy clenched in its teeth—only louder. "They're tussling inside the den," says Munn.

Our boat drifts about 40 feet away on the Pixaim River, a seasonal branch of the Cuiaba River in the heart of Brazil's Pantanal—the largest freshwater wetland left on Earth. A boggy, Ireland-sized lowland located south of the Amazon, the Pantanal is a hotspot of biodiversity with about 125 types of mammals and more than 650 bird species, including the world's biggest species of stork, macaw, toucan and kingfisher. It also claims the world's largest rodent, the capybara; the Western Hemisphere's largest cat, the jaguar; and it is one of the last strongholds for the world's longest otter, the giant river otter. Also known as *los lobos del rio*—the wolves of the river—giant river otters stretch six feet or more and weigh as much as 70 pounds. And like true wolves, these intelligent, pack-oriented animals were almost hunted to extinction. Far from recovered, their biggest threat today comes from habitat destruction and mercury pollution. But Munn's work, along with that of other conservationists, may enable these rare animals to rebound.

One of 13 species of otters in the world, giant river otters were once found in large numbers throughout the rivers of South America west of the Andes. Coveted for their soft, velvety fur—a single pelt sold for \$250 in European markets in the 1980s—they now encompass only about a fifth of their original range and are listed as endangered on the World Conservation Union's Red List of Threatened Species. Intensively trapped, they also became victims of their own fearlessness. One of the three top predators in South America's rivers, these densely muscled creatures fight as a pack and won't hesitate to take on the other two big kids on the block: anacondas and caimans. But such bravado also provided them with a tendency to confront their human enemies. "Instead of hiding when threatened, they'll swim right up to a boat to intimidate it," says Munn, who at 6' 2" fits right into this land of superlatives. "It made them easy to shoot." Their exposed dens, daytime activities and noisy natures only added to their vulnerability.



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A hunting ban in the late 1980s

DEFENDING OTTERS BY PROTECTING MAHOGANY

Prized for its beauty and durability, mahogany is one of the most valuable tropical woods—but the unsustainable logging of this tree is destroying the habitat of giant river otters and many other tropical creatures. Defenders has worked for nearly a decade to get mahogany regulated under the Convention of International Trade in Endangered Species (CITES). Although Brazil was once the biggest exporter, the country banned all exports in 2001 after illegal shipments with bogus permits became too prevalent and has since put in place a system to control the illegal and unsustainable harvest of mahogany. "Brazil could serve as a model for other countries in the region," says Defenders' Kris Genovese. "But the biggest problem now is Peru, which has repeatedly refused to abide by CITES regulations." Defenders is pushing to ensure Peru's compliance with CITES and to guarantee that the U.S.-Peru Free Trade Agreement—which Congress is expected to address this year—does not sanction the trade in illegal and unsustainably harvested mahogany. For more on the illegal mahogany trade, visit www.wwfus.org/trade/faqs_mahogany.cfm.

WHAT YOU CAN DO

Peru may be the largest exporter of mahogany—but 93 percent of it is imported by the United States. Don't buy products made from mahogany unless they carry a seal such as that from the Forest Stewardship Council, which certifies you're buying legally and sustainably harvested wood. Because otters are also impacted by irresponsible gold mining in South America—and 80 percent of gold is used for jewelry—buy gold from environmentally responsible jewelers. For starters, check out www.greenkarat.com or www.brilliantearth.com.

Get more information about the [Endangered Species Reward Fund](#).

allowed Pantanal numbers to recover to an estimated 1,000 today. Amazonian Brazil likely contains a similar number, and some 2,000 to 3,000 are scattered over isolated patches in southeastern Peru, southeastern Colombia and southern Venezuela and Guyana. "But these numbers are very rough estimates—back-of-the-envelope calculations," says Lisa Davenport, a doctoral student at the University of North Carolina studying giant otters in Manu National Park in Peru. "I'm not sure that anyone has good data on their current distribution and abundance."

While statistics may be spotty, Munn, a former senior scientist with the Wildlife Conservation Society who first began his giant river otter work in Peru in the 1980s and now directs the nonprofit group Tropical Nature, still believes otter numbers are increasing in the Pantanal. "Every six to seven miles there's another family of otters on the Cuiaba now," he says. "It didn't use to be that way." Davenport agrees: "We are repeatedly hearing reports of solitary otters showing up where they were recently considered extinct, so there are hopeful signs that they could one day recover—if they are left alone and allowed to breed in peace."

The latter is crucial. Often, fishermen view them as competition and persecute them. In other areas, unsustainable mahogany logging—timber companies will blaze roads through the Amazon to reach just three trees—is causing soil erosion and river sedimentation, which destroys otter habitat (see sidebar). "In the Manu, we are ringed by protected areas that are currently being invaded on a massive scale by illegal mahogany loggers," says Davenport. And with loggers come guns and hunting of wildlife for food, fur and "fun." "We are worried about the otters' chances not only outside of protected areas—where they have to

expand and survive if their scattered populations are to avoid inbreeding—but even inside supposedly safe areas," says Davenport. "We are just now trying to figure out how on Earth we will keep loggers out of Manu when the wood runs out in all its adjacent areas."

Gold mining is also a problem. Companies in South America use mercury to bind the gold and extract it from the river sediment. When the mercury is boiled off, it enters the atmosphere, where air currents can carry it long distances. When the toxic chemical falls back with the rain, it contaminates fish and, in turn, the otters that eat them.

"For every ounce of gold extracted, one ounce of mercury is typically released into the environment," says Munn. "But there is an easy fix." It's called a retort, an inexpensive device made from simple plumbing parts that captures at least 95 percent of the mercury for reuse. But so far it's not mandated and no one is using it.

Despite these threats, the family of 11 adults that Munn is studying from the river near kilometer 66 on the Pantanal's only road—a raised and bumpy dirt expanse known as the Transpantaneira Highway—appear to be thriving. After a 30-year absence, they recolonized the Pixaim area in 1992. Munn considers this giant river otter family especially important because, after years of being handfed fish by the locals, they have grown accustomed to people. It makes them easier to study. "Here they go about their business without minding that anyone's watching," he says.

As if to back up his statement, an otter awkwardly slides down the bank and belly flops into the river. We follow its underwater bubble trail 20 feet until our eyes are drawn back to more antics near the bank. "Two babies!" Munn can barely keep his words to a whisper. "We knew they had pups two months ago, but we haven't seen them outside the den yet."

Munn is working the video camera trying to capture their throat patterns. A dossier of individual markings will enable researchers to monitor young adults to see if they strike out to new territories in search of mates and whether they are successful.

Known as "solitarios," single otters of both genders are only allowed to join another group if the leader, or "alpha" has died. Otherwise, giant river otters are very aggressive at maintaining control of their territory. "Otters have huge teeth and muscles, and a single bite could cause catastrophic results," says Munn. "That's why family members play constantly. They can't afford to risk a real fight, and so they keep the social oil going through preening and playing."

This explains the unsynchronized water ballet now underway, making it difficult for Munn to complete his task. Swiveling—or "periscoping"—heads appear suddenly above water scouting for danger, disappear, then reemerge in a different spot. One pup takes playful pokes at a water hyacinth, while another's head bursts above the surface nose to nose with an adult. Bellies roll up and around, paddlelike tails push them through the murky water, and the humming and squeaking from the otters reach a crescendo. "Four pups! Or...is it five?" exclaims a frenzied Munn, keeping his eyes fixed on the camera. "It's a bumper crop! Wait...am I recycling one? Otters of the world, unite!" he commands, and then mutters: "This oughta keep my otter research volunteers busy."

In fact, no one had been actively studying this family group until Munn arrived here a year ago. "We know certain things about giant otters, such as family size, that they begin breeding at about two years and that only the alpha pair mates, but there's still a lot we don't know," he says.

He and his wife, Mariana, also a biologist, are hoping to have documented all the throat patterns before the rainy season starts in November, when rivers overflow their banks and the otters follow the fish out of sight and into the flooded plain. Giant otters, sleek in the water, move with a ducklike waddle over land. As the waters slowly recede starting in April, they must make their way over a matrix of land and water, providing jaguars and anacondas with the upper hand. "That's what we think anyway," says Munn. "No one really knows how they get taken because it's virtually impossible to track them during the rainy season." The Pixaim River, for example, turns into a labyrinth of lakes where these otters will only make cameo appearances.

The presence of jaguars, caimans and anacondas is also the reason that researchers think giant river otters—unlike other otter species—live in a pack. "They are in a place where 16-foot caimans can snap you in two with one bite," says Munn. "The otters must live in a group to survive."

And that's why the babies are out today. The family is moving between dens—they often have several—to fool the caimans, which can figure out where the pups are if they stay put too long. "They're playing a shell game," says Munn.

On other days, pups will remain in the den while the adults hunt for fish and crabs, which they will teach the pups to do—by bringing them injured fish—once the pups reach three months. In the meantime, a juvenile or younger adult from a previous litter stays behind to serve as watchdog and babysitter. "The pups can be unruly," he says.

But no one's left behind this morning, and as the family moves upstream and the distance between us and them becomes greater, we fire up the motor and head off in the opposite direction. Not only did we witness the pups' first outing, but Munn thinks he captured a clear shot of one of their throats. "It's a red letter day," he shouts over the drone of the engine. "Fantastic!"

Senior editor Heidi Ridgley traversed the Transpantaneira's rickety bridges and the Pantanal's piranha-filled waters for a firsthand look at Brazil's giant river otters.

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