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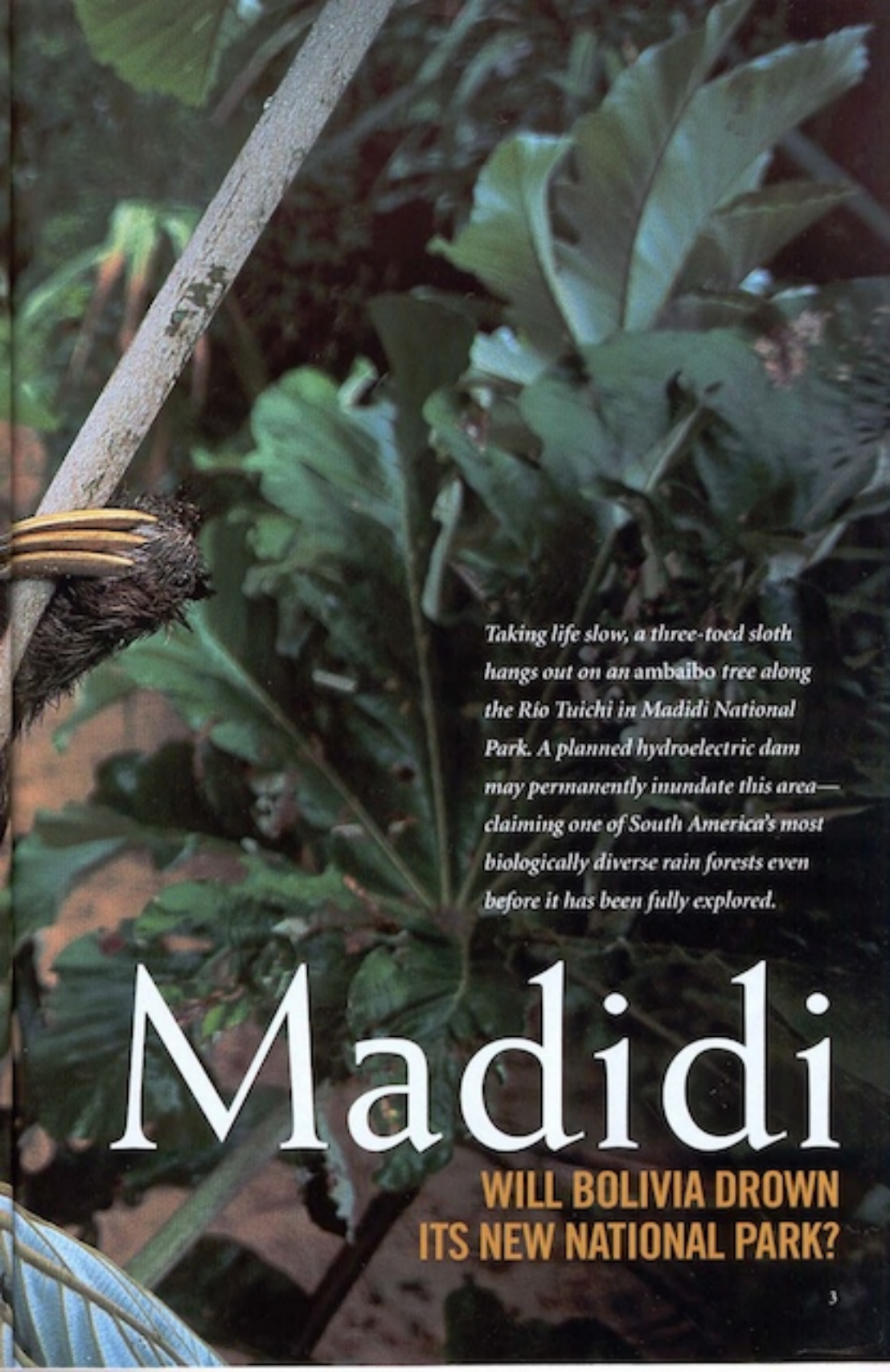
NATIONAL GEOGRAPHIC

Madidi

Bolivia's Spectacular New National Park

BUGGING OUT 24 ARCTIC SUBMARINE 30 ANCIENT GREECE III 42
HARD ROCK LEGACY 76 STONE COLD ASCENT 96 BEIJING 116



A close-up photograph of a three-toed sloth hanging from a tree branch. The sloth's long, curved claws are visible as it grips the branch. The background is a dense, out-of-focus rainforest with large green leaves and a tree trunk.

Taking life slow, a three-toed sloth hangs out on an ambaiibo tree along the Rio Tuichi in Madidi National Park. A planned hydroelectric dam may permanently inundate this area—claiming one of South America's most biologically diverse rain forests even before it has been fully explored.

Madidi

**WILL BOLIVIA DROWN
ITS NEW NATIONAL PARK?**

A single jaguar means the



A close-up photograph of a jaguar's fur, showing the characteristic dark rosette spots on a tawny background. The texture of the fur is visible, and there are some small, reddish marks on the left side, likely the wounds mentioned in the text.

ecosystem is healthy. We saw four in one day.

BLOODIED IN BATTLE, a rain-specked jaguar bears fresh wounds from a fight with piglike peccaries. Sometimes the jaguars win such conflicts, other times the peccaries do.

At Cargadero we lost a horse to a jaguar. At Mojos we lost another to a venomous snake. By that point one of our mules had a botfly maggot

wriggling in its chest, and the neck of another was caked with dried blood from the bite of a vampire bat. We humans had been much luckier—a bit of altitude sickness in the Andes, minor gashes and bruises from slips on rocky trails, bites from throngs of ticks, flies, and mosquitoes. But compensations were all around us: breathtaking landscapes, abundant birdlife, utter wildness as far as the eye could travel.

With Rosa María Ruiz, a Bolivian environmental activist, and Charles Munn, an American conservation biologist, I spent a month exploring a new Bolivian national park called Madidi. Covering 4.7 million acres—a bit smaller than New Jersey—Madidi encompasses 19,000-foot glaciers in the west, rain forest in the east, pampas in the north, and cloud forest and dry forest in between.

These varied habitats and their intersections nurture distinct flora and fauna, making the park one of the richest in the diversity of plant and animal life in South America. The continental United States and Canada hold about 700 species of birds; Madidi, with one-tenth of one percent as much area, contains an estimated 1,000 species.

A series of valleys in the park's midsection is so rugged no one lives there or even ventures into it. "What undescribed species of fauna and flora live in this lost world is anyone's guess," said Munn, who works out of Lima, Peru, for the Wildlife Conservation Society. Munn has been involved with Madidi since the Bolivian government hired him as a consultant in 1992 to help define the park. "Manu National Park

in Peru is widely thought to be the best ecotourism destination in the Amazon," he said, "but Madidi beats Manu hands down."

Or will, if it can be protected from a proposed dam that would drown a huge piece of it. At the moment, tourist accommodations are almost nonexistent. Madidi's 1,700 or so inhabitants live in scattered villages accessible only by rough trails or rivers. Though the Bolivian government established the park in September 1995, it isn't yet well-known even to scientists. Conservationists, tour operators, and Bolivian officials expect that to change as soon as lodges go up and word gets out.

The western gateway to Madidi is Pelechuco, a small Andean town hemmed in by intimidating peaks wreathed with cloud. It was a dismal place whose mayor screamed commands at his constituents through loudspeakers on the square. Still, it intermittently offered electricity, plumbing, and a phone—the last such amenities we would see for a month.

Ruiz led Munn and me out of town in a chilly drizzle, bound for the village of Puina, two days north. Ruiz's braided pigtail hung below her waist, and her cheek bulged with a wad of coca leaves. She has spent much of her life in the eastern part of Madidi. She now directs a small grassroots group called Eco Bolivia and is Madidi's fiercest protector. Though slight and soft-spoken, she once grabbed the barrel of a shotgun held by a logger cutting trees illegally in the park and told him to clear out.

At dusk we camped on a high, grassy plateau near several stone huts and a corral of llamas and alpacas. Our muleteers bought dried dung from the herders to make a fire. Ahead, a glacier caught the last daylight. At daybreak frost glazed our tents and shagged the llamas' coats.

The trail climbed toward the glacier. Chests heaving, we stopped often to gulp the thinning oxygen. I filled my cheek with some of Ruiz's

STEVE KEMPER has also traveled in South America to write about anacondas and Indian corn beer. Freelancer JOEL SARTORE, a resident of Nebraska, has photographed 14 other stories for NATIONAL GEOGRAPHIC.

coca leaves, but the mild alkaloid didn't stop my legs from complaining. In late morning we reached the first of the day's two high passes, the Cumbre de Sanchez, just under 16,000 feet. (The area still hasn't been accurately charted. Maps misplace some villages, include others that don't exist, and reroute rivers.)

The second pass, Yanacocha, was higher and gloomier than Sanchez, its slabs of black rock slippery with cloud mist. My head pounded from the altitude. We descended on wobbly legs into the wide valley of Utañani, stopping occasionally to watch viscachas scamper in the scree. With the ears of a rabbit, tail of a squirrel, and body of a groundhog, the viscacha looks like a rodent designed by committee.

Puina is a Quechua community scattered for miles along the serpentine Río Puina. Ruiz hadn't visited there in four months, and she wanted to tell the villagers about their new rights and obligations. In 1992, financed in

part by the Wildlife Conservation Society, Ruiz had traveled for months by foot, mule, and balsa raft to ask the indigenous communities in the Madidi area to support a park. It was the first time anyone from outside had asked their opinion, so they considered her an ally and looked forward to her rare visits.

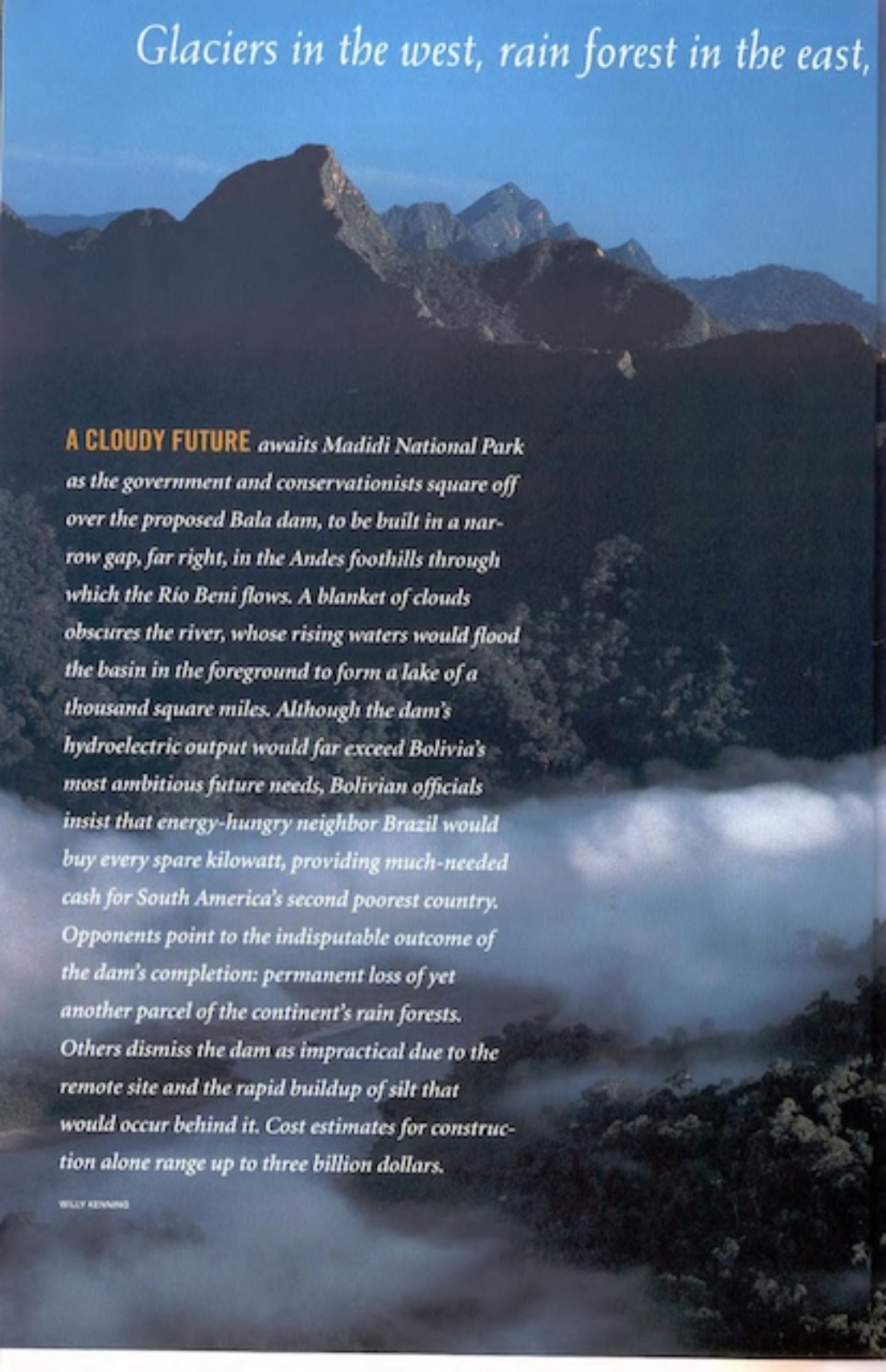
At the stone homestead of Evin Cusi Fernández we ate our first hot meal since Pelechuco. A puma had recently killed three of Cusi's llamas, and Cusi had saved what he could from the kill, including a fetus that was drying on a stone wall. The fetus would bring a good price in Pelechuco as a charm to be buried in the corner of a new house.

The puma was another story. Under the park declaration Madidi's inhabitants can continue to cut trees and hunt for their own use, but they can't sell wood or meat from the park or shoot animals indiscriminately. Cusi can shoot the llama-killing puma if he gets the



CALL OF THE WILD is a series of high-pitched whistles from the photographer's lead guide, Choco Mano, who tries in vain to summon monkeys from their hiding places. Like other local people, he hopes to make a living showing tourists around the new park.

Glaciers in the west, rain forest in the east,



A CLOUDY FUTURE awaits Madidi National Park as the government and conservationists square off over the proposed Bala dam, to be built in a narrow gap, far right, in the Andes foothills through which the Río Beni flows. A blanket of clouds obscures the river, whose rising waters would flood the basin in the foreground to form a lake of a thousand square miles. Although the dam's hydroelectric output would far exceed Bolivia's most ambitious future needs, Bolivian officials insist that energy-hungry neighbor Brazil would buy every spare kilowatt, providing much-needed cash for South America's second poorest country. Opponents point to the indisputable outcome of the dam's completion: permanent loss of yet another parcel of the continent's rain forests. Others dismiss the dam as impractical due to the remote site and the rapid buildup of silt that would occur behind it. Cost estimates for construction alone range up to three billion dollars.

pampas in the north, cloud forest in between.



chance, but he won't be compensated by the government for the loss of his llamas. Ruiz and Munn hope that someday, when tourism comes to Puina, the puma will be worth more to Cusi as a live attraction than as a dead pest.

Word of Ruiz's arrival rolled down the valley with the news that there would be a community meeting in downtown Puina—two small cement-block buildings and a rocky soccer field with crooked tree trunks as goalposts.

In the unheated school 19 kids, age 6 to 12, sat at long desks. Strangers rarely appeared here, so the teacher was delighted to see us. He was the sixth teacher posted to Puina this year. Each of his predecessors had quit after a few weeks, defeated by frustration and isolation. None of the teachers, including this one, knew Quechua, the Indian language spoken by the children. The teacher didn't even know that Puina sat in a national park named Madidi.

"You're lucky to live among condors, viscachas, and spectacled bears," Ruiz told the children. "If you take care of them, tourists will come, and you'll have jobs when you grow up."

Meanwhile, about 30 villagers had gathered in the dirt plaza nearby. Ruiz stood on a stone

bench as the evening fog drifted in, explaining how the communities in Madidi were supposed to benefit from any enterprise associated with the park, including tourism and mining. "Whatever riches are here should be for the people here," she said. Tourism could pay for clean water, medical care, and better education.

We then waited in the dark schoolhouse while the villagers discussed their future. After 45 minutes we were summoned. The headman announced that the village wanted to cooperate with other communities, learn tourism, and work with Eco Bolivia. Then he read aloud what had transpired at the meeting, as written down in the official community record. Everyone signed or marked the page, with handshaking all around. And so Puina took the first step toward the remote dream of community-based tourism. Even if Ruiz can find funding for training, Puina isn't likely to see any money for several years, until Madidi becomes better known and the village can accommodate tourists.

Ruiz believed that if the villagers understood that foreigners would pay to see wildlife and unspoiled landscapes, they would kill fewer



LEAVES WITH LEGS, delicate pierid butterflies gather on a beach along the Tuichi. Such waterside appearances are common for these rain forest insects, which are often seen swarming by the thousands.

Madidi

NATIONAL PARK

For decades engineers have seen the Bala narrows of the Río Beni as an ideal site for a hydroelectric dam. Environmentalists oppose the plan because the resulting lake would inundate more than a thousand square miles of forest. Some less invasive hydroelectric sites have been identified upstream.

Pampas

These flat grasslands are home to jabiru storks, pampas deer, and black caimans.

TAMBOPATA-CANDAMO RESERVE ZONE

Lowland rain forest

Heavy rains support rich plant and animal life in niches from forest floor to tree-tops.

BAHUJIA-SORONI NATIONAL PARK

TAMBOPATA-CANDAMO RESERVE ZONE

Dry forest

Long dry seasons create thickets of bushes and cactuses beneath bare trees.

PERU

Cloud forest

Pushed up from moist rain valleys, where moist air condenses into perpetual fog.

YALA YALA NATIONAL FLORA AND BIOSPHERE RESERVE

High Andes

Peaks shelter animal and plant species found nowhere else. Shrubs and grasses crowd the snowline.

Lake Titicaca

MANUROP-HEATH AMAZON NATIONAL RESERVE

Puerto Pérez
Puerto Heath

Madre de Dios
Heath

600 ft + 183 m

Madidi

ARAWA
MADIDI

QUECHUA

BOLIVIA

D E S

NATIONAL

PARK

Apolo

Santa Rosa

LECO

Indigenous people

Ecotourism site

Proposed ecotourism site

Road

Trail

Indigenous people

LECO

0 mi 0 km

20

20

NATIONAL GEOGRAPHIC MAP
ART BY BRADY GOULD
SOURCE: JON ART, TWO THOUSAND, KILBURN
MUSGRAVE BOTANICAL GARDEN
SOURCE FOR MAP: COMBINATION
INTERNATIONAL NATIONAL PROTECTED
AREAS SERVICE, BOULDA

Asustamas

San José de Achupall

Tumupasa

ESSEJJA

Extent of proposed lake

Sen. Juan de Achupall

Chalasin

Buenaventura

Burrenabagua

Caquahuara

Charque

PROPOSED DAM

MOSETEN

FROM LAKES
BIOSPHERE RESERVE
AND INDIGENOUS
TERRITORY

Santa Ana

LECO

Beni

Beni

Beni

Beni

Beni

Beni

Beni

Beni

Beni

animals, burn fewer trees to clear fields, and damage fewer rivers and mountains by mining. If they also learned how to provide guides, lodging, and transportation, they could control the flow of tourists through their homelands as well as profit from it.

To Ruiz and Munn this community-based tourism represents the best way to balance protection and progress. Munn said that this idea had begun to work in a few places, including Manu. But the concept is hard to implement in remote areas such as Madidi, where the people need training in everything from speaking English to cooking for foreign tastes to changing a way of life their families have followed for many generations.

AFTER PUINA the terrain grew more lush as we descended into high cloud forest, one of the rarest habitats in the world; much of it has been destroyed by slash-and-burn agriculture. While 90 percent of the cloud forest in the northern Andes has been destroyed, here in Madidi

it covers layers of mountains to the northern horizon. "You can see more high cloud forest from here than is left in all of Central America," said Munn. But to the east the green was scarred by huge patches of burned forest.

It was raining as we headed down a burned-over mountainside, stripped to our Skivvies to cross the Río Mojos, and climbed steep switchbacks. Even the mules scrambled to keep their footing, urged upward by shouts from the muleteers. After five hours we reached the village of Mojos. The Spanish founded it in the 17th century, and it soon became a *reducción*, a mission where Indians were forcibly settled, proselytized, and put to work. The settlement had once thrived on trade in corn and cattle, but almost no one used the arduous route to Mojos anymore. The church's walls had long since crumbled, leaving only a stone tower with a crooked crucifix and two chipped bells without clappers. About 15 Quechua farmers and herders lived here in mud huts.

I was awakened that night by the cries of an inconsolable child. In the morning Ruiz and I



FLOATING ASSETS head downstream as timber workers guide a raft of illegally cut mahogany on the Tuichi (above). Although trees are felled in the park year-round, January floods expand the area of cutting by deepening tributaries. Most of Madidi's mahogany, legal and illegal, goes to the United States. Other forest treasures, like macaw feather headdresses (right), are taken out of the country by visitors.



found two-year-old Juan Carlos Fernández in the arms of his weeping mother. He was limp and semiconscious from three days of vomiting and diarrhea. The brown skin around his mouth and nose was frosted with a ghastly pallor. The village healer had told the boy's parents he would die that day.

Ruiz crushed an antidiarrhea pill, mixed it with chlorinated water, and forced it into the child's mouth. Then she made a rehydration solution with sugar, salt, and treated water and pushed it into him spoonful by spoonful. After a long time Juan Carlos spluttered and protested weakly. Ruiz instructed his parents to spoon-feed him the solution all day and left several pills. When we checked him five hours later, his color had returned and the diarrhea had stopped. There would be a ceremony that night so the village healer could save face, but Juan Carlos would live because visitors with a dollar's worth of pills happened to pass through Mojos.

"The indigenous people were basically slaves until 1952," said Ruiz. That year the old order

was displaced by a government that nationalized mines, broke up the large estates, and gave all Bolivians the vote. Subsequent reforms strengthened Indian rights, but centuries of oppression shaped a subservient mind-set that still cripples people in remote areas. They are easily exploited by outsiders. Ruiz was encouraging them to develop skills that could lead to economic independence and allow them to do things for themselves rather than wait for government help.

The villagers of Asariamas had recently done something for themselves—allowed loggers to take out a big haul of mahogany illegally for a cut of the profit.

About 30 families were living in Asariamas, which lies on the Rio Tuichi in the eastern lowlands of Madidi. Two dozen people came to Ruiz's meeting and asked worried questions about the land rights of colonizers moving into their territory. (To prevent migration into the park, Madidi is reserved for the current inhabitants and their descendants.) I asked if any villagers knew about loggers illegally cutting





From a bluff overlooking the

A photograph of two red-and-green macaws in flight against a dark, blurred background. The birds are positioned diagonally, with their wings spread, showing vibrant blue, red, and green plumage. The text is overlaid in the upper right corner.

TWO OF A KIND, a pair of red-and-green macaws glide near the riverside cliff where they have made their nest—an unusual home for the birds, which typically live in tree trunks.

forest we marveled at swarms of macaws.

mahogany nearby. Finally Ubaldina Morales, a talkative, pugnacious woman in a billed cap, said, "All right, I'll tell you everything." The village's fretful headman spoke to her sharply in Quechua, but she told the story anyway.

Two 30-man mahogany crews were discovered downriver in May 1996. They had brought boats into the park from Rurrenabaque, a town downstream. The villagers agreed to accept about \$1,100 for 55,000 board feet. The loggers stayed until November, then disappeared without making the final payment.

The people of Asariamas knew that logging was illegal in Madidi, but the temptation of a fast buck was irresistible since they have so few other financial offers or possibilities. "Basically we just shrugged and said 'Go ahead,'" Morales told me. The headman again spoke earnestly to her in Quechua. She looked scornful. The room was humming. The village's schoolteacher spoke angrily to several people and abruptly left. Outside, he said the loggers had cut more like 300,000 board feet.

The logging worried Ruiz and Munn, but they pointed out that the direct damage was not too severe. Since mature trees grow widely separated, not in stands, cutting them doesn't raze a forest. Far more destructive is the practice of using the forest animals for food. I asked Morales if the crews had eaten forest animals. "Oh, yes, monkeys, deer, parrots, tapir—the works." Commercial hunters also sell meat from Madidi in the bordering towns. Spider monkeys have been especially hard hit.

DOWNRIVER from Asariamas the Rio Tuichi entered lush lowland forest. We were traveling by raft now, and late one afternoon we glided onto a long sand beach full of tapir tracks. Three red howler monkeys studied us and retreated, but a group of saddleback tamarins, their white eyebrows and goatees framing black faces, couldn't resist the beach's fig trees and fed there for another hour.

We were on the Tuichi to check its potential for white-water adventure. The ride had been fun but not risky until we reached a Class IV rapid that required investigation—and skillful paddling. It began with a drop, turned sharply left into a crowd of rocks, then gathered into another big rapid that smashed against a massive boulder in the middle of the river.



Miss the turn and you would hit the rocks on the shore. Miscalculate the turn and you would hit the rocks in the river. Fail to straighten out after the turn and you would hit the boulder broadside. Munn took one look and said, "I'm walking around it." After 15 minutes of study Stephan Zumsteg, one of our river guides, announced, "It's a good Class IV, but it's runnable." Our raft went first.

With Zumsteg shouting commands, we shot over the drop and cranked around the turn. Digging furiously with our paddles, we skimmed past the rocks, then back-paddled until the raft swung downstream again.



KNIFE IN THE DARKNESS, a ten-foot-long black caiman cuts through the inky nighttime waters of the Beni. Hunted to a mere fraction of their population of a hundred years ago, caimans have been successfully reintroduced in the Beni.

Zumsteg yelled, "Forward paddle!" and we zipped past the boulder into the clear, 15 seconds from when we started.

When the rapids petered out, we boarded two motorized longboats for the flat-water run to Rurrenabaque, a day and a half away. Along a tributary we came upon a logging camp. Most of the loggers faded into the forest, but Eduardo Cortez Bomber stayed to talk. A bearded young man in an Oakland Raiders

cap, he and a crew of 25 had been cutting trees for four months and planned to stay for one more. He stood in front of a six-foot-high block of mahogany logs cut into beams ten feet long by one foot square. When the rains raised the river, the crew would rope as many as 80 of these blocks together into a *callapo* and float them downriver to sell in Rurrenabaque. Cortez expected to take out 100,000 board feet of mahogany worth about \$50,000.

The locals say palm trees here



STANDING ON STILTS, *Madidi's "walking" trees, at right, appear to move as their shadyside roots wither. The palms may need strong root structures to quickly reach optimum height.*

grow legs and walk to find more sunlight.



Sure, he knew logging was illegal. "But the problem is that Bolivia is a very poor country." No one tried to stop them. In fact, he said, the park guards occasionally visited the camp. And no, he wasn't afraid that his mahogany would be confiscated in Rurrenabaque. "In Bolivia one can pay someone to make illegal things possible." He said his crew had paid off the head of the guards 45 days ago. He shrugged mournfully, as if he regretted a state of affairs that tolerated rogues like him. "I'm an ecologist," he added. "I'm just taking out one load of mahogany, and then I'm finished forever."

THE TOWNSPEOPLE of San José de Uchupiamonas had longer term plans. With financial and administrative help from Conservation International, a group that promotes biological diversity and environmentally sound enterprises in native communities, they were building Chalalán Ecological. The villagers had done all the construction and gradually would assume full ownership as they learned the business of

tourism. Profits from the lodge, which opened in June 1998, would go to community projects.

Conservation International had drawn attention to the Madidi area in 1991, starting the process that led to the park's creation. A team of Conservation International scientists visited Madidi and reported a "diversity of flora and fauna that rivals the richest known sites on the globe." They urged immediate protection. At first the Bolivian government planned a small park of 125,000 acres, but Munn, Ruiz, and others pushed for more land. The government eventually enlarged the park to 4.7 million acres, making it the central piece of a huge protected area that connects Ulla Ulla reserve on the southwest, indigenous territories on the east, and Peru's Tambopata-Candamo reserve on the west—about 20,000 square miles.

Ruiz had a happy homecoming at Caquiahuara, where Eco Bolivia maintains a rustic research and security station. About a dozen Tacana Indians live in thatch-roofed houses here. They had almost finished building a small lodge for tourists on the other side of



the river. Ruiz would train them how to run it.

From the top of a bluff overlooking the forest we marveled at swarms of red-and-green macaws, chestnut-fronted macaws, and white-eyed parakeets gliding to their nests in the cliff just below. "This is the best place to see macaws in South America," said Munn.

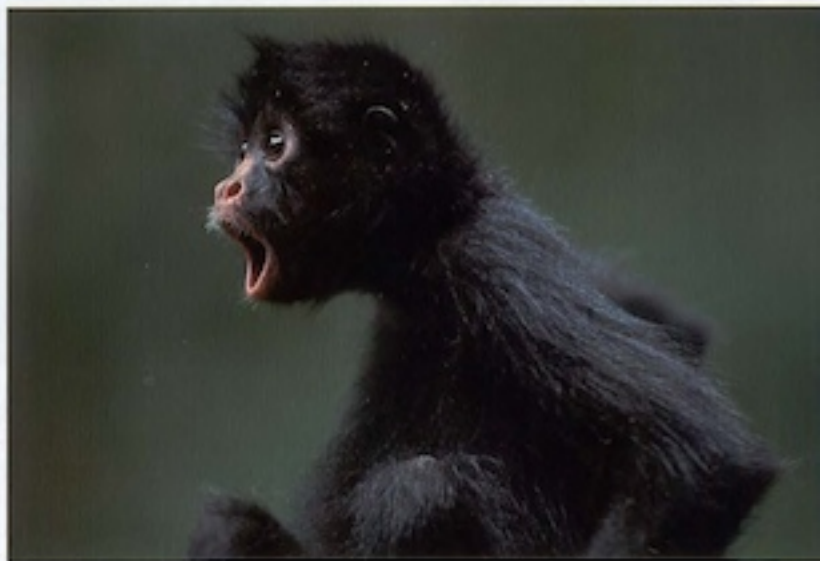
Because Ruiz is a hermit at heart, ten years ago she built a hut far from any trail on a marshy pond fed by the Río Hondo. She took me to this hidden water—hushed, lovely, but seething with flies and mosquitoes. "That's one reason I think local people are best to protect these areas," said Ruiz, "because it takes someone as crazy as I am to like being in them."

As we drifted along, we saw hoatzins, macaws, anhingas, greater anis, purple gallinules, and a handsome black-collared hawk fishing for breakfast. Floréncio "Choco" Mano, a Tacana renowned for his forest skills, was fishing too. He perched barefoot on the front of our log boat, his bow nocked with an arrow, and scanned the shallows for the slow swirl of a feeding *sábalo* (shad). There! Choco's

arrow sang. We would have *sábalo* for supper.

Morning light sharpened the river's edge. A Tacana named Marcelo Quemevo led Munn, Ruiz, and me into the forest to a salt lick. We climbed to a platform, and Quemevo began calling in white-lipped peccaries, making a loud *thock* against the roof of his mouth with his tongue in imitation of the creatures' habit of clicking their teeth. The answering *thocks* got closer, and then bristly black shapes materialized from the undergrowth, big males in the lead. There must have been 50 of them. One moment they were snuffling in the mud or lifting their rubbery noses to investigate us; the next, spooked, they had vanished in a tumult of crackling brush and frantic grunts.

Where the Río Hondo meets the Beni, we turned upriver toward Charque, a beautiful new lodge built entirely by local people that Munn predicted would become one of the top destinations in South America for birders and other tourists. But at the moment the lodges at Charque and Caquiahuara remain closed while Eco Bolivia, the Bolivian



POACHING'S TOLL, a baby peccary cuddles up to a worker at a camp in Madidi (left). The peccary's mother may have been killed for food; the infant survived for just a few days. An orphaned black-faced spider monkey (above) was raised as a pet by the logger who killed and ate its mother. "I named it Pulgoso," he says. "Full of fleas." Under current law indigenous peoples can use the park's resources, including its animals, to maintain their traditional way of life.

government, and indigenous groups argue over permits and financial arrangements. Ruiz believes that when the lodge at Charque eventually opens, the Tacana, Moseten, and Tsimane Indians who built it will earn their living from tourism—quite a switch from their traditional lives as nomads.

IN SAN BUENAVENTURA, a quiet town of rutted streets across the Río Beni from Rurrenabaque, Munn and I met with Ciro Oliver, director of Madidi National Park. Oliver explained that his first duty was to protect the park's resources, but his annual budget was small—\$198,000. He had only two patrol boats and 15 park guards, all in the eastern third of the park, but hoped to hire ten more.

When his office opened in January 1997, he said, "No one was in favor of the park because 90 percent of the people lived from wood exploitation." By August the guards had found 48 lumber camps. To avoid violence, Oliver told the loggers that when the rivers rose, they could take out whatever they had already cut "but not a single tree more." Now the guards checked these camps every week. All logging had ceased except for the activities of two or three renegade groups. Oliver said that illegal lumber was confiscated when it reached Rurrenabaque. He scoffed at Eduardo Cortez Bomber's claims about bribery and complacent guards.

Oliver's budget and resources certainly were dismal for such an immense and important park. Perhaps logging and hunting had slowed, but we had seen active lumber camps and callapos heading to Rurrenabaque and had watched mahogany being loaded onto trucks.

Ruiz had told me that Oliver, like most officials, resented her work. When I asked about Eco Bolivia, Oliver reacted strongly. "Rosa María Ruiz promised a lot and lied a lot, and when she got financing, she forgot about the people she had promised. We have interviewed all the communities where she has worked, and none said anything positive."

This contradicted everything I had seen. The villagers within Madidi welcomed Rosa María as a friend and champion. While many people found her headstrong, I suspected that some of Ruiz's accusers lived outside the park and were motivated by frustrated greed.

Gabriel Baracatt, the director of Bolivia's



National Protected Areas Service, had been on the job for just over a month when we spoke by phone. He intended to strengthen protection in Madidi by hiring 40 more guards if he could find the funding. He also planned to inform the communities of their rights and potential benefits and wanted to train them to manage Madidi and develop tourism. These admirable goals were undermined by the meager budget for the park.

In August 1998 the park's future received a blow when the Bolivian National Congress passed a law authorizing a gigantic dam just upstream of Rurrenabaque. Hydroelectric



CLEANSING WATERS, *the Tuichi and its tributaries run through the ancestral home of the Tacana people. A group of Tacana guides, bathing at day's end, are the vanguard of those who will welcome outsiders to Madidi—and try to protect it from their influences.*

power from the dam would be sold to Brazil. The dam would flood over a thousand square miles, displace native peoples, drown irreplaceable flora and fauna, and wipe out the new lodges at Chalalán, Caquahuara, and Charque. Ruiz and others are fighting to stop the project.

Next to Guyana, Bolivia is the poorest country in South America. Most of its people worry more about survival than about the environment, and so its politicians, even the honest

ones, face strong pressure to support policies that will provide immediate jobs and thus preserve votes, not wildlife.

The best hope for Madidi's future may be in places such as Chalalán, Caquahuara, and Charque, where the inhabitants are learning to be partners in the area's future. If most of the park's residents protect the wildlife and forests and learn to manage tourism, Madidi will remain incomparable. □