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The Caves of Belize: Explorations on the Edge of Ecotourism

by Lisa Mastny

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Explorations on the Edge of Ecotourism

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Leafy cohune palms blocked out the tropical sun, cooling the air around the thatched roof cabanas that made up Ian Anderson's Caves Branch Adventure Co. and Jungle Lodge. As I walked down the drive, a small yellow and black bird fluttered past me and settled on a drooping frond. To my left, I could hear the Caves Branch River trickling through the jungle's thickness.

But the peace of the surroundings did not extend into the wooden, open-air lodge, where guests were beginning to help themselves to the evening's buffet dinner. When I stepped up onto the patio, little did I know that I was walking into a brewing conflict over the future of tourism in Belize.

I had hoped to chat with the owner, Canadian-born Ian Anderson, over the meal to learn about the issues he faced as one of the country's most successful ecotourism entrepreneurs. But he had other problems on his mind. Every few minutes, he would excuse himself and duck into the kitchen, leaving the wooden saloon-style doors swinging behind him. From the patio, I could hear him speaking intently into his mobile phone.

It didn't take long to learn the cause of the commotion. The Belize government had just shut down the guide operation at the nearby Jaguar Paw Resort, another expatriate-owned outfit that offers tours through some of Belize's most dazzling tourist attractions—its crystal caves. Several local operators had complained that the owners at Jaguar Paw were restricting public access to the network of pristine caves situated near their private complex, and things had begun to get violent. Anderson, afraid that he was next on the list, was frantically calling around to hire security guards and dogs to head off any potential unrest.

I had arrived in Belize two weeks before to learn

about this tiny country of 250,000 inhabitants that in the last few years had become one of the world's top ecotourism destinations. Earlier that day, I had taken the water taxi from Ambergris Caye, an overbuilt tropical island 60 kilometers east of Belize City, which had been so inundated with tourists that it was the farthest thing from "eco"-tourism I could have imagined. I hoped to find a little more calm and relaxation inland, where, according to my guidebook, tourism was developing at a more leisurely pace. At Caves Branch, however, I found relaxation but not necessarily calm.

Ian Anderson, who once worked in the hotel industry, was among the first people to recognize the tourism potential of Belize's caves. In the early 1990s, he organized a handful of tours and built a lodge and some cabanas on a lush jungle site in the Caves Branch valley in the center of the country. Today, much of the surrounding landscape has been cleared to make way for neat rows of citrus trees, and the oranges grow in such profusion that locals are allowed to pick them for free to prevent the crop from going to waste. Enclosing the valley are the foothills of the Maya Mountains, their slopes carpeted with the jagged chaos of trees that have never been clear-cut, at least with the tools of modern man.

Tourists began visiting Caves Branch soon after Anderson set up shop, hearing about his operation mostly through word-of-mouth. But it took him nearly a decade to turn a profit. Today the pace has definitely picked up, especially since early March, when one of Anderson's cave tours was featured on a steamy episode of *Temptation Island*, a Fox Television "reality TV" show in the United States.

By then, the troubles had already begun. Local resistance to the Caves Branch outfit, and to other private cave tours in the area, has intensified in recent

years. Critics complain that tourist operations owned by expatriates are squelching indigenous efforts at ecotourism, by denying local people access to the caves so they, too, can make money from them. The income generated by tourist visits to the caves is by no means small change: guests at Caves Branch—70 percent of whom are from North America—pay anywhere from \$70 to \$95 for a day's cave visit.

I had heard rumors of rising tensions even before arriving at Caves Branch. Carlos, a Belizean snorkel guide I had met on the islands, raised his eyebrows when I mentioned Anderson's name. "Ian is a bad man. He thinks he can stop the locals from going places," he told me. Others, too, had similar reactions when I mentioned my destination, though no one would go into more detail.

I soon learned that the situation was a bit more complicated than this. Under Belizean antiquities law, neither Anderson nor any other private individual can "own" the country's caves and bar people from using them. This is because the government has official jurisdiction over all archaeological sites—whether they are situated above or below ground. The bulk of Belize's caves, which are rich in Mayan pottery and other artifacts, therefore fall under government control.

However, the entrances to most of the caves that Anderson uses for his tours are located on private land—the 23,500-hectare Caves Branch Estate, owned by a business partner. The easiest way to access many of the caves is by crossing over this land. "This is private property, and people need to respect that," Anderson said in defense of his operation. "I have never tried to restrict public access to the caves from other points. For instance, people are free to follow the river, a public waterway, to reach some of the entrances."

But some local residents resent what they feel is Anderson's exclusive access to the caves. And lately, this opposition has intensified. In one incident, unidentified assailants threw large rocks down the walls of a 100-meter sinkhole that a group of Anderson's guests were rappelling into, barely missing them.

The government, fearing greater trouble, has stepped in to look more closely at the controversy. Anderson's competitor, whose operation was shut down the day I



Author Lisa Mastny dangles above the "Black Hole," a 100-meter-deep collapsed cave in Belize's Caves Branch region.

arrived, was the first casualty in a dispute over private property and public resources.

Similar conflicts over tourism and resource ownership are playing out across the developing world, as traditional resource-extractive industries like mining or timber lose ground to the booming tourism economy. Travel to these regions has surged dramatically. Today, 1 out of every 5 international tourists travels from an industrial country to a developing one, up from 1 in 13 in the mid-1970s.

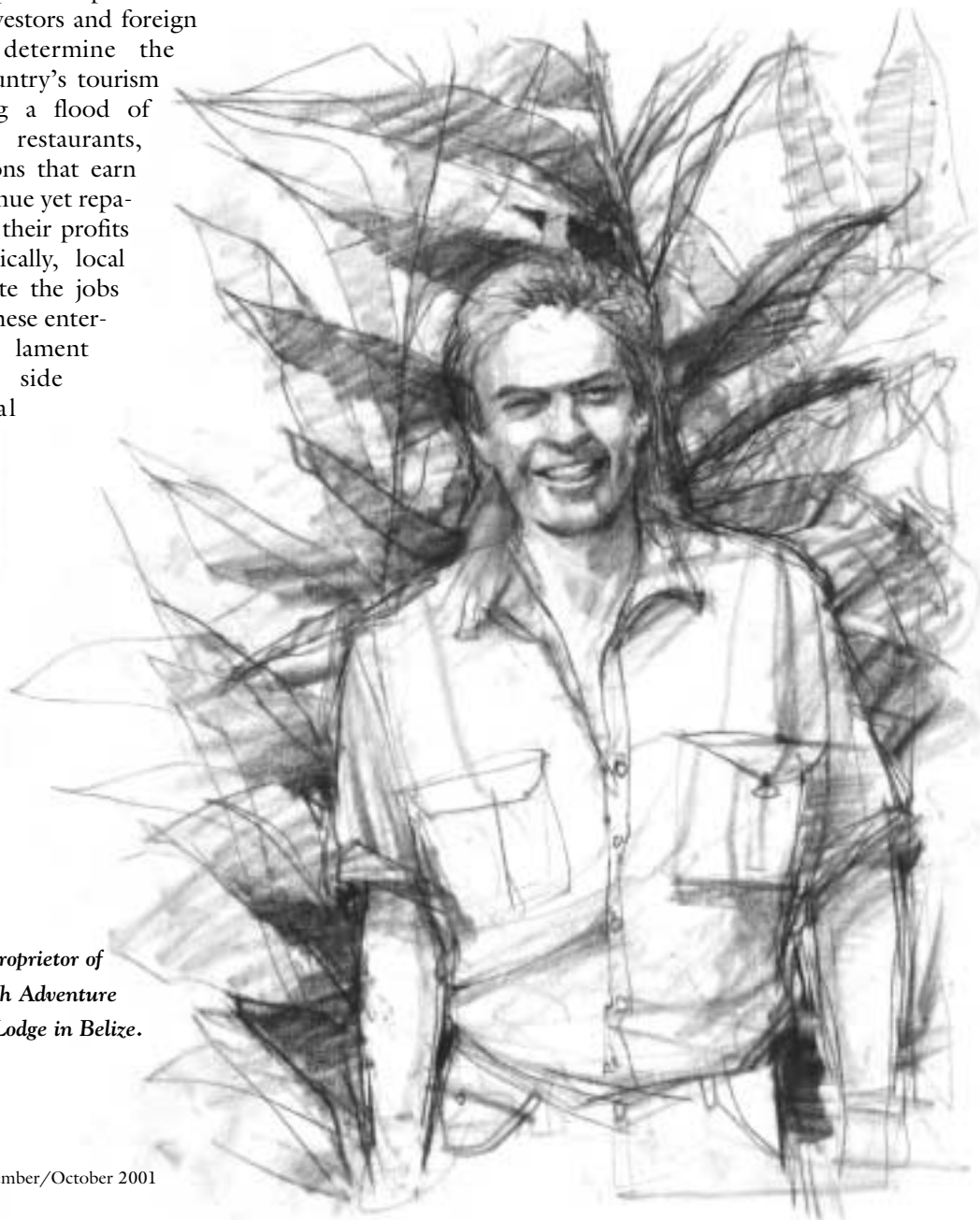
Tourism has the potential to generate needed foreign exchange, but with less environmental destruction than is inevitable in traditional resource extraction. But some of the same dramatic clashes prominent in the extractive industries are also prevalent in the growing tourism sector. Like transnational mining companies or timber barons who vie over the fate of a country's forests or minerals, private tourism interests can wield a great deal of influence, sometimes at the public expense.

Large-scale investors and foreign interests often determine the direction of a country's tourism industry, bringing a flood of expensive hotels, restaurants, and tour operations that earn high levels of revenue yet repatriate the bulk of their profits back home. Typically, local residents appreciate the jobs and income that these enterprises bring, yet lament the negative side effects—cultural

“mainstreaming,” a boost in living costs, and often, environmental destruction.

Belize has not escaped these problems. The 23,000 square kilometer country, bordered by Mexico and Guatemala, is rich in natural and cultural attractions. These include not just caves, but beaches, jungles, mountains, and native cultures—among them Creole, Mayan, and Garifuna (the descendants of African slaves and Carib Indians). Since 1985, international tourist arrivals to the country have more than tripled, to more than 350,000 annually. Tourist dollars now bring in about \$112 million a year, accounting for one-fifth of the GDP and a quarter of total foreign exchange earnings. Today, approximately one of every four jobs is tourism-related.

Foreign investors have scrambled to capitalize on Belize's tourism potential, and their presence in the country has remained strong. Erlet Cater, a delegate at the first Caribbean ecotourism conference, held in



Ian Anderson, proprietor of the Caves Branch Adventure Co. and Jungle Lodge in Belize.

Belize in 1991, estimates that at least half of the 350 participants at the time were either expatriates or based in the United States, and many expressed interest in starting an operation in Belize. In 1992, expats comprised roughly 65 percent of the membership in the Belize Tourism Industry Association, an industry group that includes representatives from leading hotel, tour operator, and transport associations.

Today, foreigners who do not have a development permit from the government can only own small parcels of land in Belize. Even so, an estimated 90 percent of the country's coastal development is in foreign hands.

In Belize, as in much of the developing world, growing numbers of hotels and tour operators are billing themselves as "ecotourism" enterprises. They hope to cash in on surging global interest in nature-related travel, including trekking, caving, snorkeling, and other "soft" adventures—a market that has grown by as much as 30 percent a year in recent years.

In practice it can be difficult to decide what, exactly, qualifies as ecotourism. The Vermont-based International Ecotourism Society defines it as "responsible travel to natural areas which conserves the environment and sustains the well-being of local people." But few tour operators actually meet these criteria well—including those in Belize. For instance, I saw sprawling, luxury resorts on the islands billing their scuba operations, which are dependent on gas-guzzling motor boats, as eco-tours.

But I also encountered more than enough local Belizeans who were committed to more responsible tourism. They included "Chocolate" Heredia, the 72-year-old fisherman-turned-snorkel guide who had spent 30 years of his life convincing the government and his fellow guides to protect dwindling manatee populations off Belize's northern cays. There was Basilicus, a 17-year-old Mayan who helped his parents and 14 siblings run jungle tours and a tourist homestay program in one of Belize's poorest villages—and who someday hoped to work for an international organization on sustainable development issues. And there were many others.

Anderson steered away from using the word ecotourism altogether. Instead, he called his operation a "life-changing adventure" tour. "I don't know what ecotourism is—it's just a buzzword, a marketing tool," he told me. "But I know what it should be: one, it should include grassroots indigenous involvement. Two, it should be small scale with minimal impact. Three, activities should be planned in a low impact way."

I wouldn't have called Caves Branch a "grassroots" operation, given that the outfit wasn't started up by the local community. But benefits for Anderson's 37 full-time employees, most of whom came from the immediate area, seemed good. He explained

that his cave guides earned as much as five times the average valley salary of roughly \$9 to \$10 a day. In addition, they earned a bonus share of the profits from the December-to-Easter high season, usually no less than \$400 each per year. And several of the staff had been with the company long enough to become legal shareholders, which they would remain as long as they stayed there.

For the most part, the site was designed and run with sensitivity to its ecological impact. The lodge, 10 cabanas, and "jungle showers" were constructed using local wood beams and thatch, and all guest spaces were lit by kerosene lamps.

But I wondered whether Anderson, with his business experience, greater understanding of the expectations of foreign tourists, and permission to access caves on his partner's land, wasn't crowding out local efforts to capture the tourist market. In passing, he had mentioned that an attempt within the community to start an alternative, locally run cave guide association had fallen apart, not long before I had arrived. It wasn't clear to me exactly why.

Anderson had his own explanation. "They claimed I was shutting them down," he told me. "But it was really because of a lack of professionalism. The problem is, there is little cooperation in this society....They didn't want to start a village operation, really. They didn't want to put in the time and effort that I've had to for the past nine years. They just wanted to take the Caves Branch name and milk off that." He pointed out that his offers to provide free training to local guides, and to help them find alternative cave tour locations, had fallen on deaf ears.

It was hard to tell whether or not Anderson's apparent lock on a rich public resource like the Caves Branch caves was fair. But it was clear that he went to great lengths to protect the ones that I toured. The publicly accessible caves, on the other hand, had not fared so well.

Some 200 million years ago, present-day Belize was a cluster of small islands in the tropical ocean separating the two American continental landmasses. Over the next 60 million years, the skeletons of countless ocean creatures accumulated in layers beneath the surface, forming the rich limestone ridges of the Maya range. When sea levels fell, exposing the skinny Central American land bridge, the Maya Mountains stood bare against the elements. Wind pummeled the rocks, and rain and other surface water seeped through the porous limestone of the hills and valleys, carving uniquely shaped caverns and tunnels through the subterranean landscape. Today, as one local put it, "Belize is like Swiss cheese."

Nine of us at the adventure lodge had elected to go on Anderson's most popular cave tour, the "River

Cave Expedition.” This included several hours of floating through underground tunnels on large inner tubes, the route lit only by the beams of our headlamps. Drifting through the cave entrance, I sensed immediately that these were not like any caverns I had seen before. There were no metal handrails and wood walkways, or walls laced with cables and large spotlights. None of the looming formations had been smoothed and darkened by the touch of thousands of grasping fingers.

No, being inside these caves was like floating through the interior of a jewel. In every direction, stalactites and stalagmites—ranging in size from soda straws to broad tree trunks—formed shiny moist columns. The flowstone rippled softly down the walls, and the snowy rock crystals twinkled in our lamp beams, as if sparked by an intense chemical reaction.

Further in, we parked our inner tubes on a sand bar and prepared for a short hike in the cave. Our guide, Marcos, wouldn’t let us advance until he had pointed out exactly where to put our hands and feet, something that would have been nearly impossible to regulate had our group been any larger. This was not just a safety precaution—any misstep would, within seconds, transform million-year-old crystals into dull brown patches.

All of Belize’s tour guides are required by law to take a series of 12 set courses to gain basic knowledge of subjects like guiding, first aid, environmental law, Mayan culture, marine biology, and local flora and fauna. But Marcos explained that Caves Branch guides receive instruction in all these topics and more—including cave ecology and rigorous training in cave and wilderness rescue, an invaluable skill in the darkness and unpredictability of the underground world.

Almost everywhere I turned—on the ceiling, along the walls, underfoot, hanging off ledges—I saw cave formations that put every “crystal” or “cathedral” cave I had ever visited to shame. I marveled at the difference between these caves and the ones I had visited back home in the States—the U.S. caves seemed like mere tourist traps in comparison. I held my breath as I squeezed past long-legged, blind spiders that scuttled into cracks when I neared, and strained my neck to peer into the foot-wide pockmarks overhead, hollowed out by centuries of acidic bat guano.

After about an hour of hiking and crawling, Marcos instructed us to aim our beams toward the corner of a long chamber. There, clustered on the floor, lay remnants of broken pots, some with decorative twine designs imprinted around the neck. Nearby, a pile of charred wood and ashes gave testament to an ancient fire. It might have been set only yesterday, were it not for the reflection of my lamp beam in the petrified remains. Marcos passed around bits of jade and obsid-

ian that had been discovered nearby, perhaps the beads of long broken necklaces or other adornment.

The ancient Maya, whose ruined cities lie buried deep in the jungles of Mexico and Central America, have left clues to their presence throughout present-day Belize. At the height of their empire, between 300 and 900 A.D., up to a million Mayans—50 times today’s population—inhabited the territory, building elaborate pyramid-style ceremonial centers and plying the network of cave passageways. The Maya are thought to be among the earliest cultures to develop the mathematical principle of zero, and they formulated the 365-day calendar along with a highly sophisticated art and religion. This glory began to crumble around 850 A.D.—when cities and ceremonial centers were abandoned, artistic activity stopped, and the powerful ruling elite vanished. The reason for the collapse remains unknown, but theories suggest it may have been religious or cultural conflict, rebellion, or environmental factors like drought or agricultural failure.

But archaeologists do know that caves, like the one Marcos led us through, played a vital role in these ancient lives. Clay pots have been found calcified to the cave floor under stalactites, suggesting they had been left there to collect dripping water during the long dry season, when surface streams evaporated. Larger pots, discovered in the drier caves, contain remnants of the grain that may have been stored in them during more humid months.

Mayan legend suggests that caves also represented sacred portals into the dark and watery Mayan underworld, known as Xibalba. Because of their importance, they were the sites for many ancient rituals. One cave not far from Caves Branch, Actun Tunichil Muknal (Cave of the Crystal Sepulchre), is named for the chamber where archaeologists discovered the remains of a young woman, a sacrificial victim. The cave also contains two rare altars where ancient Maya elites cut themselves to collect their blood and offer it in homage to their gods, according to archaeologists.

Anderson and his crew have explored roughly 63 caves on the Caves Branch property, many of which contain pottery and other artifacts, as well as breathtaking crystal formations. But only six are open to tourists, and some have been put out of commission to avoid overuse.

“We’re starting to gain an understanding of why we have to preserve our environment, of how it will benefit us in the long run.” said Walter, a Honduran-born guide who used to work as a factory operator in a citrus grove, as I waited to get on the rusty cattle truck that would transport us to our next tour. “We get benefits, from income and from jobs. People are no longer hunting for their income. Now they work for tour companies as guides.”

The Caves Branch lodge, constructed out of materials from the surrounding jungle.



The day after my cave tubing adventure, I ventured with a friend to rappel into the 100-meter “Black Hole Drop,” unswayed by the stories of rock throwing and intimidation from the night before. We were the only tourists on the trip, which made me slightly nervous, but two Cave Branch expert guides accompanied us. When we reached the rim of the sinkhole, they spent a full hour preparing the ropes, wrapping them around hefty tree trunks and tying several backup anchors as a precaution. Before I stepped over the lip, committing my life to the ropes, they explained how I was supposed to lower myself down. To my surprise, I was remarkably calm as I descended, suspended above the canopy of the forest below.

I soon had a glimpse of the alternative to a Caves Branch tour. Before I had left for Belize, Anderson’s wife Tangie had suggested in an e-mail that I visit St. Herman’s Cave, a publicly run cave nearby. “It would be a great opportunity to compare the difference in

our caves with one that has been opened to tourists with no guides or even instructions on safety, proper gear, and preservation of the cave,” she had written. That was enough to pique my curiosity.

St. Herman’s was just down the road from the Caves Branch entrance, located in the Blue Hole National Park, a nature reserve run by the Belize Audubon Society—one of the few local conservation groups that is actually controlled by native-born Belizeans, at least at the board level. Just to the right of the gravel parking lot, a newly constructed wood hut served as the visitor information center.

The uniformed warden greeted me and my friend Jenn as we entered, and I unzipped my money belt to pull out the \$8 to pay for us. “No, no, don’t worry about it,” he said, shaking his head. “It’s late in the day. You’re probably the last ones....I’m leaving soon anyway.”

I insisted that he take the money. After months of ecotourism research, I was well aware that entrance

fees, modest though they often are, are one of the few ways national parks can support themselves, particularly in the developing world. Managing protected areas and protecting them from loggers, poachers, and other outside incursions can rapidly drain government resources. In a country like Belize, where nearly 40 percent of the land area is under some form of legal protected status, every tourist dollar counts.

But for whatever reason, the warden wouldn't take our money. He just asked us if we had flashlights and, when we nodded, gestured toward the trail.

The cave entrance, a 60-meter wide sinkhole, towered above our heads like a gaping mouth, with vines dangling from its upper lip. The entrance formed a misty weather front where the sultry humidity of the tropical jungle met the cool subterranean air. We made our way cautiously down the concrete staircase that covered the rough stone cuts the ancient Maya had hewn into the rock. The path was slippery in our sandals, and we realized we should have followed the Caves Branch recommendation to wear boots.

Ten feet into the cave, we pulled out our flashlights. I had a key chain penlight that stayed lit only as long as I pressed the button with my thumb, emitting a very faint beam. Jenn had a small metal flashlight that fared somewhat better, but was nothing compared to the headlamps that had been provided to us at Caves Branch. Neither of us carried extra batteries. We were unprepared and sorely under-equipped.

We followed the trail, a muddy path marked by small orange reflectors mounted on wooden posts or on the rock wall itself. Looking around, it was clear that earlier visitors had not felt compelled to stick to the path, which at times dissolved into a route as wide as the ledge we were following. The path was dotted by the occasional gum wrapper or discarded cigarette.

The cavern formed a wide tunnel overhead, and in the darkness below us, we could hear the trickle of a stream running below the ledge we were following. It may have been the weakness of the flashlights—or my cynical preconceptions—but no spectacular cave formations leapt out at me. I saw no glittering crystals, spiders, or broken pottery. (Indeed, if there had ever been any Mayan remnants in this part of the cave, they had been long since looted.)

About a half-mile in, we encountered a small wooden sign, warning that we should “go no further without a guide.” Not that anyone would have stopped us, I thought. For all we knew, the ranger had long gone home.

Increasingly nervous to be so alone, we decided to head back, again following the reflectors. After a few turns, Jenn stopped, saying she had lost the trail. I turned off my flashlight to conserve the little speck

of a battery inside. After a few minutes of searching, we could no longer tell which direction we had come from. We paused to assess our flashlight and water situation, and checked our watches to determine how long it would likely be before the next visitors showed up.

After a little more wandering and more than a few skipped heartbeats, we found the reflector. A massive rock that extended out into the trail had blocked it from our line of sight. Frustrated by the experience, we moved quickly back to the entrance.

Back at the visitor's center, I told the warden about the poorly placed reflector. Without looking up from packing his bag, he said “You have to look carefully.”

Admittedly, had we brought stronger flashlights, or perhaps paid closer attention while making our way through the cave, our experience would have been less terrifying. And perhaps we would have seen more crystal or other formations if we had hired a local guide with the proper equipment, instead of opting to explore on our own (though we saw no opportunities for doing this).

But what unsettled me most was the state of the cave. The difference between St. Herman's and the Caves Branch explorations was like night and day.

I left the Blue Hole park that day overwhelmed by thoughts of the uncertain future of Belize's caves. The promises and pitfalls of tourism that I had read about in books were playing out before my eyes. Places like Belize need to develop their tourism from within, because if local people do not have a stake in a resource, there is no incentive for them to preserve natural features like caves or forests. But without the training and ecological awareness of people like Anderson, it is possible that these assets, which are increasingly rare to come by, could be lost before they are ever really found.

After two more weeks of traveling, many more tours, and countless interactions with tour operators and guides, I left Belize for home. Without question, ecotourism in the country was struggling to come into its own. And it was clear that everyone wanted a piece of it—the locals, foreign investors, government treasurers, and of course, the tourists themselves.

Lisa Mastny, a staff researcher at the Worldwatch Institute, traveled to Belize in March 2001.

The Belizean government has since reopened the Jaguar Paw caving operation, in accordance with the country's private property laws.