

The Cockscomb Basin was declared a sanctuary for jaguars, but its no-hunting policy extends to all animals in the refuge.

# Land of the Jaguars

By Eric Hoffman  
Photographs by Tony Rath

## Natural boundaries kept Belize's Cockscomb Basin a jungle refuge.

Ernesto Saqui silences the children trailing along behind him: "Quiet! You might rob me from seeing a jaguar. We are making too much noise to appreciate the forest."

The shy Garinagu children visiting from coastal Belize stop talking and listen. Their culture and native tongue can be traced to shipwrecked African slaves who began to arrive in the 18th century. Despite the small size of Belize, for most of the children, this is their first exposure to rainforest.

"This is one huge tree," proclaims Saqui, pointing to a buttressed trunk measuring 18 feet across. The Ceiba tree towers above the forest canopy, adorned in flowering orchids and vines. "My people, the Maya, won't cut down a Ceiba," Saqui adds. "We believe there is a god of skies above and one of the underworld below. The transformation from one world to the next goes through the limbs and roots of the tree. If the Ceiba tree could talk, it would tell tales of all the creatures in the forest."

Later, their guided walk ended, the Garinagu children and their chaperons lunch on a grassy riverbank.

Ernesto Saqui, a native Mayan on the sanctuary's staff, leads schoolchildren on a walking tour.



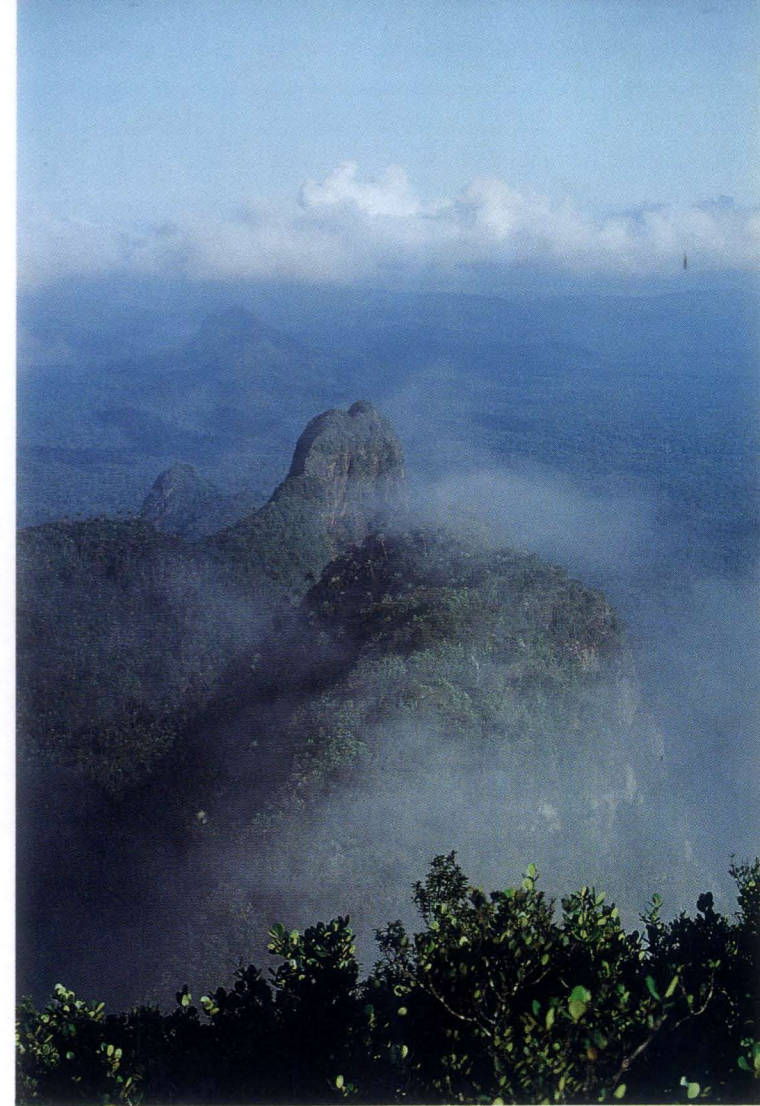
In the clear, deep current of South Stann Creek, fish dart and hover—fish that American children would probably only see in an aquarium or a pet store.

A former school teacher, Saqui is director of the Cockscomb Basin Wildlife Sanctuary, a jungle refuge in south-central Belize renowned for its wildlife. He is a pivotal character in the sanctuary's development because he bridges the gap between the Mayan people on the sanctuary's borders and the international conservation organizations and Belizean authorities that created the sanctuary.

The latter group hopes to make the rainforest sanctuary a prime Central American ecotourism destination. But the success of the sanctuary in protecting its many endangered species will ultimately depend on its acceptance by the traditional users of the forest. For untold centuries, Mayan villagers have subsisted on hunting and on growing vegetables in milpas (slash clearings of forest for short-term agricultural use).

The Cockscomb Basin first gained worldwide notice in 1984, when 100,000 acres were declared the first jaguar reserve with a no-hunting policy extending to all animals. The idea was to protect not just jaguars, but the prey species so important to them.

Ranchers and trophy hunters have greatly depleted the jaguar, whose range once extended as far north as the Southwest United States. Viable numbers now are found only in the jungles of Central and South America. Despite the cat's desire to avoid man, *el tigré*, as the jaguar is known south of the U.S. border, is traditionally portrayed as a child-devouring bogeyman in much of Latin



This view of the Cockscomb Basin, seen from Victoria Peak, shows why the land has escaped the exploitation that has afflicted so many other habitats.

America. The sighting of one near a village can kick off a hot pursuit lasting weeks until the jaguar is shot.

But the Belize government, known for its enlightened conservation policies, decided to protect jaguars unequivocally and placed a moratorium on hunting the species in 1981—a ban still in effect today. By 1986, 3,600 acres of the original 100,000-acre reserve had gained sanctuary status, where all kinds of exploitation, including logging activities, are forbidden. But the Cockscomb Basin Jaguar Reserve was soon found to be too small to offer sufficient protection to jaguars. Three years ago, the entire basin of 102,000 acres gained sanctuary status and was renamed the Cockscomb Basin Wildlife Sanctuary.

Geographically, the basin is somewhat isolated from the rest of Belize. Hemmed in on three sides by jagged mountains, the basin has avoided most of the huge ecological changes humans have brought elsewhere.

Even during the Mayan heyday—around 900 A.D.—the basin was not heavily used. In more recent times, a small Mayan village existed on the site of the sanctuary's headquarters and campground at Guam Bank. The people were moved to a new village nearby, named Maya Center, that is the entry point for visitors to the sanctuary.



A boat-billed heron attends her nestling. The species lives in tropical freshwater swamps.



Animals like this old man lizard benefit from the Cockscomb's dense mid-level canopy, which allows shade-tolerant plants to flourish.

Despite the fact that the basin is relatively pristine, human and natural occurrences have had their effects. Hurricanes and selective hardwood harvesting, primarily of mahogany, have "trimmed" most of the rainforest's upper canopy. The result is a very dense mid-level canopy that allows shade-tolerant tropical plants to grow in profusion.

The combination of hurricanes, a yellow-fever epidemic, and hunting wiped out the black howler monkeys in the basin. The logging camps that once existed have been reclaimed by the jungles, but names that translate to "Leave If You Can" and "Go to Hell" tell what the loggers thought of the area.

Inhospitable conditions may have limited the presence of people, but they have allowed jungle species to flourish. Within the sanctuary's boundaries are Victoria Peak—at 3,300 feet the second-highest point in Belize—hundreds of streams, three river systems, and a wide assortment of wildlife, including 55 mammal species.

**T**he largest mammal is the horse-sized Baird's tapir, an endangered denizen of the deep forest. And there are also two species of peccaries, Brocket deer, anteaters, oversized rodents known as gibbonuts, and dozens of small marsupials and rat-sized creatures. More than 290 species of birds live in the basin, including the king vulture, the keel-billed toucan, the boat-billed heron, the endangered scarlet macaw, and the agami heron.

The Cockscomb Basin is one of the few places on earth where five species of wild cats share the same territory. In addition to jaguars there are ocelots, margays, jaguarundis, and pumas. Researcher Alan Rabinowitz discovered that each of the cats utilizes a different part of the same habitat and maintains a diet tailored to fit its specialized niche.

The margay, for instance, is almost exclusively nocturnal and arboreal. Its double-jointed rear feet allow

it to descend a tree headfirst rather than the backing-down method used by most cats. Able to leap from one tree to the next, the margay eats mainly birds, tree-dwelling mice, and rat-sized mammals.

The ocelot, which weighs upwards of 40 pounds, dines on creatures usually caught on the jungle floor. Judging by its scat, Rabinowitz surmised the ocelot prefers mid-sized mammals like armadillos, opossums, small deer, and peccaries.

The widely ranging jaguarundi is a day hunter the size of a house cat. It rarely retraces its steps, perhaps to avoid becoming a victim of larger cats that may pick up its scent. Of all the small cats, the jaguarundi has the broadest diet: rodents, amphibians, birds, and occasionally fruit.

The mountain lion remains a mystery. Rabinowitz has been unable to catch and fit one with a radio collar, although a tawny, reddish-colored variety of mountain lion, known locally as the "red tiger," has been sighted in the Cockscomb.

## 'Winning the hearts and minds of the locals is essential.'

There's no mistaking the jaguar. At first glance it looks much like a leopard, but it's usually more muscular, and males have distinctly large heads. It weighs as much as 200 pounds and is powerful enough to dispatch anything in the forest, even an adult tapir weighing 600 pounds.

As physically impressive as the jaguar is, its diet consists primarily of small mammals, deer, peccaries, and armadillos. Rabinowitz's field studies indicate that healthy jaguars avoid people and don't bother ranchers' livestock unless the stock wanders into the jungle. Incidences of jaguars killing ranchers' stock are usually attributed to old, injured, or inept young animals that are unable to tackle game in the forest.

**S**anctuary night watchman Alphonso Ical, from Maya Center, casually describes jaguars that pass near headquarters on their nightly rounds. "Seeing a jaguar is good because it helps the night pass faster," he says. "Just last week I saw a female with two cubs. The sanctuary was made for the jaguars, so it is good we are seeing them."

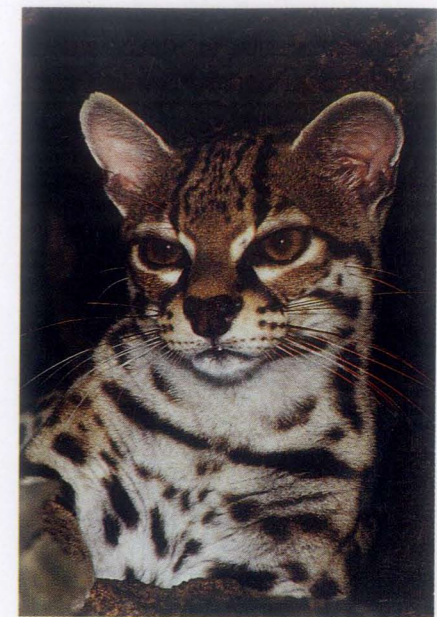
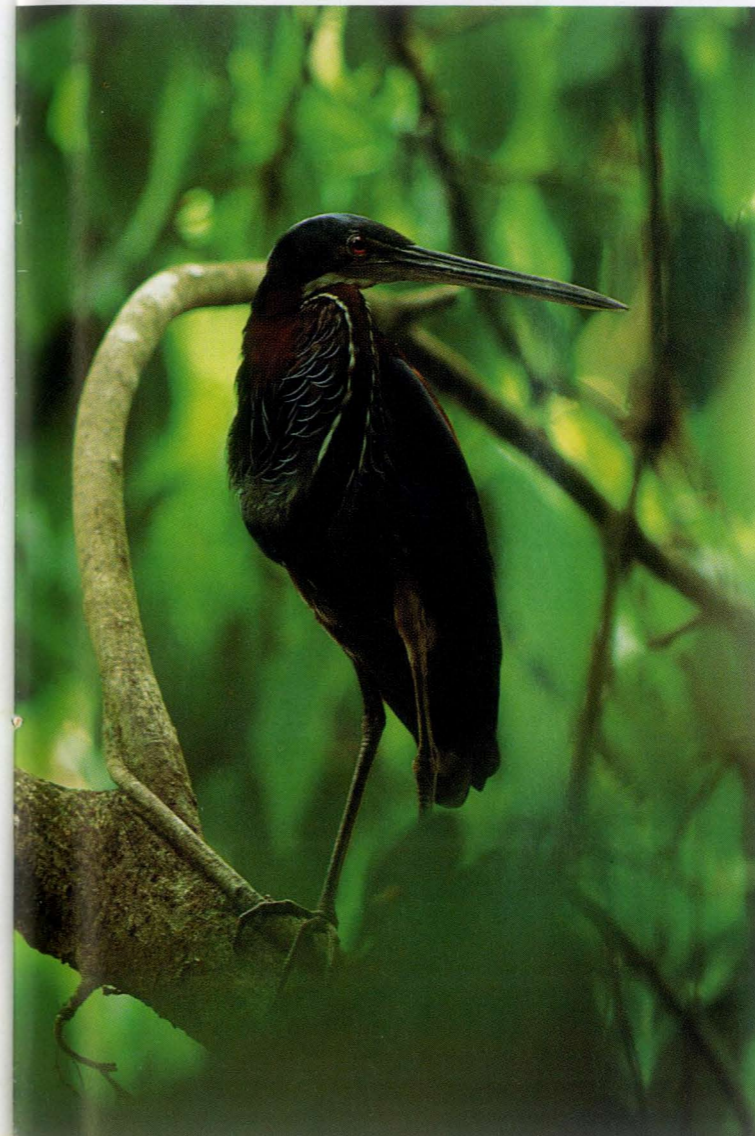
Ernesto Saqui stresses the importance of integrating displaced Mayans into different sanctuary activities. "When I first became involved, a Peace Corps worker and an American scientist were the ones trying to run things," he recalls. "They didn't know what to say to the local people who had been removed from the basin and resettled at Maya Center. How were they to make a

living? Could they adjust to a new life style? These Mayans were told that there would be no more farming or hunting where they had lived. I knew how they felt. I also know what's at stake from the conservation viewpoint."

The sanctuary now employs six Mayan wardens and watchmen. They understand the ideas behind conservation, says Saqui. And the village has established businesses that make crafts for tourists. Therese Bowman Rath, the president of the Belize Audubon Society, says: "Ernesto is the key because he understands the values and perspectives of the cultures involved in the sanctuary. Winning the hearts and minds of the locals is essential, and so is developing economic stability for everyone involved."

Getting the locals on board seems to be working, but worries mount over an anticipated influx of undocumented, subsistence-level immigrants from Guatemala and San Salvador, many of whom have been settling in

The rare agami heron frequents dense tropical forest and is seldom seen in the open. The birds feed at the margins of small water courses and pools.



The housecat-sized margay is known for its agility—a trait enhanced by double-jointed rear feet.

other parts of Belize. These immigrants live off the land, clearing forest for milpas and hunting for meat. The fear is that if they settle in the jungle near the Cockscomb, they may use it as their own private hunting preserve.

"The immigrant problem poses a serious challenge because these people aren't part of the ongoing education efforts designed to foster an appreciation of the wildlife prevalent throughout Belize," explains Rath.

As Belize struggles to meet the challenge, scientists continue to assess the special qualities of the Cockscomb and preserve it amid a world of disappearing and changing ecosystems.

Saqui and a team of biologists and government officials have undertaken the reestablishment of black howler monkeys within the sanctuary by moving 14 howlers from another refuge in northern Belize and releasing them into the Cockscomb.

"It was hard to imagine a place with the abundance of the Cockscomb not having primates. That's like going to Yellowstone and being told there are no elk. So far, the released monkeys are doing fine," beams biologist Tony Rath of Programme for Belize. Eventually the team hopes to translocate a total of 40 howlers, which will reestablish the species in the Cockscomb.

Once that occurs, each morning the crescendo of bird calls will be complemented by the very loud and eerie bellowing of howler monkeys—making the Cockscomb Basin one of the few places readily accessible to visitors where the jungle symphony can be heard in full harmony.

*Author Eric Hoffman is a frequent contributor to Animals. His latest book, Adventuring in Belize (Sierra Club/Random House), will soon be released.*