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Ecuador's Yasuni National Park, which contains much of the country's oil reserves and a place where oil companies are expected to soon expand drilling, likely has a higher density of jaguars than any other place on Earth.

Yasuni is arguably world's most biodiverse place. Its incredible riches include more species of insects in one hectare than the US and Canada combined, untold amounts of plant species, and six different types of large cats. Of those, none is more dominant than the jaguar, an "umbrella" species that can be used to measure the overall health of a forest and that—despite the jaguar's extreme tendencies to prey on all sorts of animals—indirectly helps protect the forest's biodiversity.

Using a series of camera traps spread throughout the Tiputini Biodiversity Station's 6 square kilometer spot of pristine, virgin rainforest, researchers have been able to identify 21 different jaguars, which would put northeastern Ecuador far above anywhere else in the world. I got to visit the station last week, and although I didn't see any jaguars, the sheer number and variety of insects, spiders, monkeys, and birds that you can spot without even trying is incredible.

According to Diego Mosquera, manager of the station and the biologist behind the center's camera traps program (which has been running since 2004), nine jaguars are seen regularly in their area of forest, with the others being transient individuals. Mosquera is currently working on publishing his research, which he hopes will highlight the value of the habitat.

"There's no hunting or development here, so the forest is the same way it's been for thousands of years," Mosquera said. "Jaguars have plenty of food here."

Using the station's camera traps, Mosquera has been able to snap pictures of rare wild dogs, 36 different species of mammal, and 27 different bird species. He also thinks there may be as many as 150 ocelots per 100 square kilometers in the park. He's racked up more than 55,000 pictures that include identifiable species and, until recently, has been grabbing some pretty incredible video of some of the forest's more elusive wildlife. That's until a hoard of peccaries went and destroyed his camera.

"The peccaries do it on purpose," he said. "I don't know how they know it's there, but they do. It doesn't matter what camera you have, it always suffers a lot here in the Amazon. You can buy something that's supposedly indestructible, but it's not. Humidity, rain, animals, and falling trees have all damaged our cameras."

Jaguars aren't considered an endangered species: They're listed as "near threatened" on the IUCN Red List of Threatened Species, but their habitats have been aggressively destroyed over the past few decades, leading to their extinction in El Salvador and Uruguay. Shockingly, there's actually a few jaguars living in Arizona and New Mexico, so the United States stays off the "extinct" list.

With the advent of camera traps—motion-or-heat-activated hidden cameras in the jungle—scientists have been able to more accurately measure jaguar densities throughout the Americas. Jaguars have huge ranges, with males sometimes covering as much as 40 square kilometers.

For that reason, jaguar densities are measured in large increments. In Brazil, Peru, Colombia, and Mexico, there are between two and four jaguars per 100 square kilometers of suitable wild land. Belize's Cockscomb Basin Wildlife Sanctuary, which has roughly eight jaguars per 100 square kilometers, had been considered the world's best place to spot a jaguar in the wild. Now Yasuni may take the crown.

Though the rainforest at Tiputini Biodiversity Station has been particularly well protected, it's not unreasonable to think that there could be a similar number of jaguars in other parts of the nearly 10,000 square kilometer Yasuni National Park, namely the park's Ishpingo-Tiputini-Tambococha region in the far east of the park. For years, that sect of land has been protected despite its vast oil reserves. But last month, President Rafael Correa announced that within the next several years, oil drilling would commence there.

With drilling comes noise, pollution, heavy machinery, and, potentially, a road, all things that jaguars are not particularly into. Previously-built roads in the park's western portion have brought more people, which has led to overhunting of peccaries and monkeys, two of any jaguar's favorite dishes.

Mosquera's research is still waiting to be published, and measuring densities isn't quite as simple as cross multiplying-and-dividing his data to accommodate a larger area.

He's working on expanding the project, but a recent crowdfunding attempt to purchase higher quality cameras failed.

Though protests on the streets of Quito and the country's constitution, which is supposed to protect the rights of nature and of the indigenous people living in Yasuni from being exploited, have failed to change Correa's mind on the issue, Mosquera says more data about just how unique Yasuni is might at least help sway public opinion.

"We had no data before to compare [jaguars in] Ecuador to other places. This is a start but I need to cover a bigger area to identify individuals and estimate densities," he said. "I think then we might have a better argument to give to the government to protect the park."