



South America Conservation Region: Northern Tropical Andes

ECUADOR: CONDOR BIORESERVE

*Preventing Water Woes and Preserving
Vital Habitat for At-Risk Bears and Birds*



Cotopaxi Volcano, still active and Ecuador's second highest peak, measures more than 19,340 feet. It reigns over Cotopaxi National Park, part of the Condor Bioreserve. © Greg Miller

NAMED FOR THE PLANET'S largest flying bird and Ecuador's national symbol, the Condor Bioreserve covers 16 distinct vegetation types spread across six protected areas. Four of the half dozen—Cayambe-Coca Ecological Reserve, Antisana Ecological Reserve, Cotopaxi National Park and Llanganates National Park—provide sanctuary for Ecuador's largest population of at-risk Andean condors.

An estimated 80 condors are left in all of Ecuador due to loss of habitat and years of overhunting. People killed condors because they believed the myth that the birds actually carried off children, cattle and sheep to make meals of them. In reality, because of the way their feet are structured, condors are only suited to feed on carrion and small prey.

Sumaco Napo-Galeras National Park and the Cofán-Bermejo Indian Reserve round out the 5.4 million-acre Condor Bioreserve landscape in northern Ecuador east of Quito, the capital city. It starts in the Amazonian foothills at an elevation of 1,300 feet and straddles the high, jagged Andes Mountains, reaching more than 19,340 feet atop snow-capped Cotopaxi Volcano.

In addition to condors, this section of Andean páramo (high grassland) and tropical montane forest also is home to woolly tapirs, the largest northern population of spectacled bears, jaguars, pumas and dwarf deer called pudú. More than 760 bird species, 150 mammal species and 110 amphibian species have been recorded here.

Road building, manmade water reservoirs, sheep and cattle ranching, logging and slash and burn farming for

crops are destroying the reserve's ecological riches. Poachers and hunters who burn the páramos to flush game also are threats.

With partners, the Conservancy is devising collaborative solutions to protect this region that millions of people count on for their drinking water and livelihoods. Projects are as diverse as creating a trust fund for watershed protection, making wildlife corridors for spectacled bears and training park guards.

Rescuing Watersheds

Simply put, the high plateaus of the Condor Bioserve are a water spigot for the more than 1.5 million people living in and near Quito. Some 28 rivers, forming six large watersheds, originate in the reserve. Water is used for drinking, irrigating crops and generating electricity.

In 2000, the Conservancy teamed up with the U.S. Agency for International Development and in-country partners to create a Quito-based water conservation fund. The aim is to collect payments from water users and channel the money to watershed protection. The Conservancy donated the initial \$1,000 and invited major water users to the table. Regular contributions from the local water company, electric company and the National Brewery have boosted the fund to \$1.4 million. The goal is to generate at least \$350,000 in interest annually to pay for conservation measures.

Building Ranching Bridges

Walk the Condor's Andean páramo for a few miles, and you can easily convince yourself you're in the grasslands of Colorado. Such geographical similarities and a shared ranching heritage make a Conservancy-guided "ranch-to-ranch exchange" between the two places a natural fit. Ranchers are learning to take advantage of conservation tools employed by their peers.

For instance, the owners of the 46,000-acre Yanahurco Ranch are looking to Colorado to learn how to protect their land from the Quito water company project. The company wants to build roads, install pipes and dam some of the 19 rivers crossing the ranch. Yanahurco is a cattle and horse ranch with an ecotourism project run by a staff biologist. Owners fear the proposed water project will jeopardize habitat for the Andean condor, spectacled bear, woolly tapir and black-faced ibis.

In tandem with this effort, the Conservancy is encouraging ranchers and other private landowners to preserve native animal habitat and protect watersheds by limiting development in corridors connecting protected areas. The Conservancy set a precedent in early 2004 by purchasing 2,117 acres of high Andean grasslands to link Cayambe-Coca and Antisana.

Tracking Bears

The endangered spectacled bear, named for the white eyeglass-like markings on its face, is the only bear native to South America. One-third of its remaining habitat is in the Condor. Bears, which feed on plants and small rodents, count on the disappearing tropical montane forest for shelter. Their habitat is being fragmented by the expansion of agriculture, logging, roads, water and oil pipelines. For instance, the Inter-Oceanic Highway cuts across three of the Condor's six protected areas. Villagers kill the bears when they attack cattle.

Conservancy partner EcoCiencia has initiated a major research project centered around the bear. It involves training members of the Oyacachi community in the Cayambe-Coca Ecological Reserve to study habitat availability, population size and food sources, and to collect specimens such as bear hair and droppings so scientists can analyze DNA. The fear is that fragmentation of habitat forces bears to couple with fewer mates, which creates a less varied gene pool and makes bears susceptible to disease.

Encouraging Local Stewardship

Two indigenous communities, the Oyacachi and the Cofán, live in the Cayambe-Coca Ecological Reserve. The 600-plus Quichua members of the Oyacachi community and 100-plus Cofán members of the Sinangóe community base their living on growing crops, raising animals and making handicrafts. The Conservancy and its partners are helping both communities manage their natural resources more efficiently and to improve traditional practices such as cattle grazing and crop production.

Training Rangers

The Conservancy and its partners have trained at least 18 community park guards. These unarmed rangers patrol the Condor to reduce the amount of poaching, illegal logging, fire and other threats. Local people use fire as a communication tool, to flush wildlife while hunting, to stimulate pasture growth for livestock and to clear land for farming. Rangers are provided with two-way radios, patrol vehicles and guard stations.

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