



South America Conservation Region: Southern Andes

BOLIVIA: AMBORÓ-CARRASCO CONSERVATION UNIT

Rural Residents Take Initiative

To Protect the World's "Fern Capital"



Scientists have catalogued more than 3,000 plant species thus far in Amboró and Carrasco, adjacent national parks in central Bolivia.

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TRAVEL TO THE CROOK of the “Andes Elbow” in central Bolivia and you’ll find the fern capital of the world. This “natural island” of more than 3.1 million acres is sandwiched between 800,000 citizens of the city of Cochabamba to the west and more than a million citizens of Santa Cruz to the east

Amboró and Carrasco, adjacent national parks measuring more than 1.5 million acres apiece, make up this protected area. It is at the far eastern end of some 7 million acres of Bolivian yungas with steep slopes to the north and low hills to the south. Ancient volcanoes and prominent sandstone formations have eroded to form deep canyons. Dominant features of the continent converge here: the Andes to the south and west, the Amazon to the north, the Chaco flatlands to the east and the Brazilian

Shield/Chiquitania to the northeast

Jaguars, spider monkeys, spectacled bear and deer roam in this land of abundant rainfall with altitudes ranging from 951 to 14,899 feet. Amboró has 127 mammal, 109 fish, 105 reptile, 102 amphibian and 322 insect species. Scientists are still researching Carrasco, where 382 animal species have been catalogued thus far.

Horned curassows, tiger herons and harpy eagles are some of the 830 bird species counted in Amboró. This park, just one-eighth the size of Costa Rica, has almost as many bird species as the entire Central American country. Scientists have registered more than 245 bird species in Carrasco.

More than 3,000 plant species grow in this region, which supports 600 fern species. Both Amboró and

Carrasco have at least 300 orchid species apiece, many of them endemic to the area. Scientists estimate some 2,000 types of orchids grow throughout Bolivia.

Overhunting, overfishing, slash and burn agriculture, logging, oil exploration and uncontrolled tourism are taking their toll on the region's biological riches. Incoming migrants without jobs or land are flocking to this area in hopes of starting small-scale farms. Also, coca growers clear land within the parks when their illegal crops are eradicated in field outside park boundaries.

People are prohibited from living within the park. However, 18,000 to 20,000 people live in 97 communities within the buffer zones on the northern and southern edges of Amboró.

The Conservancy is working with six Bolivian partners to guide the region on a more sustainable track. Strategies include making stricter regulations for the oil and gas industry, encouraging ecotourism, improving land use practices and collaborating with local institutions to improve land tenure arrangements.

Encouraging Local Control

Although the 21 parks and reserves created as part of Bolivia's National Protected Areas System are a step forward for conservation, they are not enough to protect the country's biological diversity. That's why the Conservancy is promoting a 1993 national law that allows Bolivia's 314 municipalities and nine departments to create and manage their own protected areas. These can be areas that complement national protected areas and that also harbor water sources, unique landscapes, biological diversity or cultural significance.

A pilot program between Amboró-Carrasco is the 1.5 million-acre Altamachi Cotacajes Protected Area in the Department of Cochabamba. It constitutes a key link along the chain of parks on the eastern slope of the Andes—known as the epicenter of global biodiversity. The Conservancy worked with partners CIDEDER (Centro Integrado para la Defensa Ecológica y Desarrollo Rural), Conservation International and World Wildlife Fund to create the protected area in 2002.

A Destination for Ecotourists

In La Yunga, a remote community of 58 families at the edge of Amboró, the average daily income is under \$1. Families grow subsistence crops on surrounding hillsides and sell excess corn and beans to residents of nearby Mairana. Bolivian-based Conservancy partners Fundación Amifos de la Naturaleza and Fundación Turismo y Desarrollo de la Mancomunidad Sara e Ichilo have initiated an ecotourism project with the potential to boost that daily wage and pro-

tect the area's natural resources.

Visitors have access to a newly constructed bamboo ecolodge, a restaurant and a network of hikig trails. Hikes through the fern forest and other natural wonders are led by trained local guides. A Plan to market medicinal herbs grown locally is in the works. More than 2,000 visitors made their way to la Yunga in 2003. Tourism is expected to grow as more people become familiar with the region.

These types of enterprises provide alternative sources of income and discourage families from slashing and burning their homeland to make way for income-generating crops and cattle. New land has to be cleared each year because the soil is so poor. These poor land practices usually lead to lower income over time.

Yuquis Claim Their Future

Disease, territory battles and diminishing resources have led to a near demise of the Yuqui people. Only about 140 Yuquis live among four other indigenous groups on 314,321 acres next to Amboró-Carrasco. Wisely, those 48 families designed a forest management plan that limits logging of hardwoods and restricts fires used to clear land for crops.

The Yuquis have called on the Conservancy and its partners to jointly create a long-range plan to protect their rivers and lagoons. One priority for the Yuquis is keeping a healthy population of side-necked river turtles, which they count on as a main source of eggs and meat. That will require two major efforts: working with the owners of the local banana plantation to reduce and regulate chemical runoff and soil erosion by introducing safer farming methods; and establishing fishing/hunting/collecting zones, seasons and limits for turtles and eggs.

Other species targeted for conservation include forest-dependent game birds such as guans, curassows, parrots and large mammals such as tapirs, peccary and deer. Hunting zones, seasons and limits will help to keep those populations healthy.

Their goal is to make their forest and rivers healthy enough to support enough turtles, game birds and tapir, peccary and deer to feed their families—and perhaps keep their culture from dying out completely.

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