In 2007, GCBO was pleased to help fund the purchase of 500 acres of critical habitat in the Andes mountains of Ecuador. Since this purchase, the property, once inhabited by cows, has been allowed to revegetate and is now a stunningly beautiful property with migrant birds, amazing orchids and several species of critically endangered frog species.

**Project Title:** Reserva Las Gralarias 1 – Upper Santa Rosa Tract  
**Location:** Mindo, Ecuador  
**Size:** 500 acres  
**Grant amount:** $95,000  
**Date:** 2007  
**Organization:** Las Gralarias Foundation  
**Website:** [www.reservalasgralarias.com](http://www.reservalasgralarias.com) and [www.lasgralariasfoundation.org](http://www.lasgralariasfoundation.org)
Background and importance of the project

Conservation International (CI) has named 34 biodiversity hotspots in the world which are the most important to conserve. Although their combined area is just 2.3 percent of the Earth’s land surface, over 50 percent of the world’s plant species and 42 percent of all terrestrial vertebrate species are endemic to these hotspots. One of these hotspots is the Tropical Andes and another is the Chocó bioregion. These two zones come together in northern Ecuador. The Tropical Andes is described by CI as “the richest and most diverse region on Earth and contains about 5 percent of all vascular plant species in less than 1 percent of the world’s land area.” The Chocó biogeographic zone has exceptional richness and endemism of birds, plants, reptiles, amphibians, and butterflies (Dinnerstein et al. 1995). This region supports the largest number of restricted-range bird species of any Endemic Bird Area (EBA) in the Americas (BirdLife International 1998).

Located in the mid-elevation Chocó zone, the area around Mindo, Ecuador was declared in 1997 as the first Important Bird Area (IBA) in South America. This helped local communities realize the importance of birds as a source of local pride as well as a source of tourism revenue. However, actual conservation of bird habitat is still minimal and government control of illegal logging is non-existent. The Ecuadorian Chocó zone includes a narrow 30 km/20-mile ribbon of montane cloud forest that runs along the western Andes between 3300-1800m elevation. This cloud forest zone is where the moisture-laden Pacific clouds meet the Andes mountains and is also where habitat is rapidly disappearing because of agriculture, cattle ranching, unplanned development, and other activities. It is home to some 400 species of birds, including one of the world’s most critically endangered species, the Black-breasted Puffleg. However, there are no government-sponsored reserves in the area and only a handful of private reserves dedicated to habitat conservation. Substantial efforts are needed for regenerating habitats, increasing connectivity among forest patches, and managing them to satisfy special needs of rare, endangered and endemic species. In addition and very unfortunately, there have been no sustained region-wide efforts directed towards conservation of waterways. Since agriculture, ranching, and trout farms are important activities in the area, changes in water chemistry, caudal diversion, and river bank destruction are ever-present threats. As a result riparian forests have shrunk dramatically and in many areas have disappeared.

The 1063-acre Reserva Las Gralarias lies in the middle of the Tropical AndesChocó biodiversity hotspots.
Reserva Las Gralarias

Reserva Las Gralarias (RLG) was launched in 1998 with the purchase of a small farm of 7.5 hectares/19 acres. On a brief birding trip to this area birders had found a number of uncommon and some rare bird species endemic to the Chocó biogeographic zone. Such species included Moustached Antpitta and Orangebreasted Fruit-eater, both species very poorly known at that time and still considered very rare in this area. RLG continues to provide habitat for these and many other rare bird species including 25 Chocó endemics and 8 bird species categorized by the IUCN under some level of threat. The reserve also serves as annual stopover and overwintering habitat for Nearctic and Neotropical migratory bird species. So far 16 species of Nearctic-Neotropical migrants have been recorded at RLG:

<table>
<thead>
<tr>
<th>Broad-winged Hawk</th>
<th>Olive-sided Flycatcher</th>
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</thead>
<tbody>
<tr>
<td>White-throated Hawk</td>
<td>Red-eyed Vireo</td>
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<tr>
<td>Peregrine Falcon</td>
<td>Swainson’s Thrush</td>
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<td>Sora</td>
<td>Barn Swallow</td>
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<tr>
<td>Spotted Sandpiper</td>
<td>Cerulean Warbler</td>
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<td>Upland Sandpiper</td>
<td>Blackburnian Warbler</td>
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<tr>
<td>Baird’s Sandpiper</td>
<td>Black-and-white Warbler</td>
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<tr>
<td>Western Wood-Pewee</td>
<td>Summer Tanager</td>
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</tbody>
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Chocó endemic Yellow-breasted Antpitta (L) and Chocó endemic Hoary Puffleg (R) at RLG
Since 1998 additional lands have been purchased by the current owner with the help of conservation-minded donors and birders and with the ongoing work and support of the Las Gralarias Foundation, a US-based 501c3 non-profit organization. Thanks to a large donation from the US-based Gulf Coast Bird Observatory and many smaller donations, in July 2007 RLG was able to almost double its size. It now encompasses 425 hectares/1063 acres of continuous and protected cloud forest habitat ranging from an elevation of 1750m/5300ft up to 2400m/7200ft. Reserva Las Gralarias protects five important water systems which serve as the source of water for native wildlife as well as for downslope communities. The reserve is made up of 7 different parcels of land purchased over 9 years and is located along the equator at 00°00′33″S latitude and 78°44′15″ W longitude, within the parish of Mindo, the counties of San Miguel de Los Bancos and Nanegalito, and the Province of Pichincha, 2 hours by the main highway, northwest of Quito, Ecuador.

The reserve vegetation classification includes Very Humid Pre-Montane and Montane Forest, with an average annual temperature of 18-24°C and average annual rainfall of between 2000-4000 mm. Within the reserve there is primary and secondary forest as well as regenerating pastures. The flat area along the road was, for 30+years, cut, burned and seeded with African honey grass, a tenacious non-native grass used for grazing cattle.

Organizational Background:
The Las Gralarias Foundation is an active US 501(c)3 non-profit organization founded on 4 August 2005. Its goal is to raise funds for the projects and programs of Reserva Las Gralarias, including the purchase of nearby and adjacent lands that will enhance protection for birds, plants and other animals as well as support reserve management, reforestation efforts, conservation-oriented field research, environmental education projects, scholarships, and appropriate tourism programs.

Regional Threats to Biodiversity:
The mid-elevation Chocó cloud forest lies between the Pacific coastal region and the Andean sierra of northwestern South America. It is a narrow zone of land under increasing pressures from rapidly expanding populations, infrastructure projects, agriculture and unplanned development. It is a fragile region insofar as topography and soils and is also home to untold numbers of species of plants and animals, many of which are endemic to this small area having evolved away from their Amazonian ancestors after the Andean uplift. Ecuador is a rapidly developing country with much of its development continued to be based on (often uncontrolled) exploitation of natural resources.
Cloud forest cut for pasture.

Pastures drain into cloud forest waterways.