

## ENGLISH CONTENTS

*(for Color Plates, see pages 23–38)*

122	<b>Participants</b>	217	<b>Appendices</b>
124	<b>Institutional Profiles</b>	218	(1) Geology
128	<b>Acknowledgments</b>	219	(2) Vascular Plants
130	<b>Mission</b>	248	(3) Hydrology
131	<b>Report at a Glance</b>	249	(4) Fish Sampling Stations
140	<b>Why Sierra del Divisor?</b>	250	(5) Fishes
141	<b>Conservation of the Sierra del Divisor</b>	258	(6) Amphibians and Reptiles
141	Current Status	263	(7) Birds
143	Conservation Targets	274	(8) Large Mammals
146	Threats	280	(9) Regional Mammal Inventories
147	Recommendations	283	(10) Bats
153	Opportunities	285	(11) Human Settlements
155	<b>Technical Report</b>	286	(12) Social Assets
155	Regional Overview and Inventory Sites	292	<b>Literature Cited</b>
160	Geology and Hydrology	298	<b>Previous Reports</b>
163	Flora and Vegetation		
173	Fishes		
182	Amphibians and Reptiles		
186	Birds		
196	Mammals		
204	Sociocultural Assets for Conservation		
210	Legal Status of Territorial Reserves		

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## INSTITUTIONAL PROFILES

### The Field Museum

The Field Museum is a collections-based research and educational institution devoted to natural and cultural diversity. Combining the fields of Anthropology, Botany, Geology, Zoology, and Conservation Biology, museum scientists research issues in evolution, environmental biology, and cultural anthropology. One division of the museum—Environment, Culture, and Conservation (ECCo)—through its two departments, Environmental and Conservation Programs (ECP) and the Center for Cultural Understanding and Change (CCUC), is dedicated to translating science into action that creates and supports lasting conservation of biological and cultural diversity. ECCo works closely with local communities to ensure their involvement in conservation through their existing cultural values and organizational strengths. With losses of natural diversity accelerating worldwide, ECCo's mission is to direct the museum's resources—scientific expertise, worldwide collections, innovative education programs—to the immediate needs of conservation at local, national, and international levels.

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### The Nature Conservancy – Peru

The Nature Conservancy is an international non-profit organization, founded in 1951. It is headquartered in the United States, but also works in more than 30 other countries around the world. The mission of The Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. The Nature Conservancy's vision is to conserve portfolios of functional conservation areas within and across ecoregions. In Peru, TNC has three main initiatives: Pacaya Samiria National Park, the forests of the Selva Central, as well as creating a protected area in the Sierra del Divisor region that is a sister conservation area to the Serra do Divisor National Park across the Brazilian border.

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**ProNaturaleza – Fundación Peruana para la Conservación de la Naturaleza**

ProNaturaleza—the Fundación Peruana para la Conservación de la Naturaleza is a non-profit organization, created in 1984 with the purpose of contributing to the conservation of the natural patrimony of Peru, with particular emphasis on its biodiversity, the promotion of sustainable development, and the betterment of the quality of life of the Peruvian people. In order to achieve these goals, ProNaturaleza executes projects, primarily in natural areas, along three principal lines: the protection of biological diversity, the sustainable use of the natural resources and the promotion of a culture of conservation in the national society.

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**Instituto del Bien Común (IBC)**

The Instituto del Bien Común is a Peruvian non-profit organization devoted to promoting the best use of shared resources. Sharing resources is the key to our common well-being today and in the future, as a people and as a country; to the well-being of the large number of Peruvians who live in rural areas, in forests and on the coasts; to the long-term health of the natural resources that sustain us; and to the sustainability and quality of urban life at all social levels. IBC is currently working on four projects: the Pro Pachitea project, which focuses on local management of fish and aquatic ecosystems; the Indigenous Community Mapping project, which aims to defend indigenous territories; and the Large Landscapes Management Program, which aims to the creation of a mosaic of sustainable use and protected areas in the Ampiyacu, Apayacu, Yaguas and Putumayo rivers. The mosaic will be constituted by the enlargement of communal lands, a system of regional conservation areas and a national protected area. We are also promoting the participation of indigenous organizations in the creation and categorization of the Zona Reservada Sierra del Divisor. The IBC recently completed the ACRI project, a study of how communities manage natural resources, and distributed the results in a number of publications.

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The Regional Organization AIDSESEP-Iquitos (ORAI) is registered publicly in Iquitos, Loreto. This institution consists of 13 indigenous federations, and represents 16 ethnic groups located along the Putumayo, Algodón, Ampiyacu, Amazonas, Nanay, Tigre, Corrientes, Marañón, Samiria, Ucayali, Yavarí and Tapiche Rivers in the Loreto region.

The mission of ORAI is to ensure communal rights, to protect indigenous lands, and to promote an autonomous economic development based on the values and traditional knowledge that characterize indigenous society. In addition, ORAI works on gender issues, developing activities that promote more balanced roles and motivate the participation of women in the communal organization. ORAI actively participates in land titling of native communities, as well as in working groups with governmental institutions and the civil society for the development and conservation of the natural resources in the Loreto region.

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The Organización Regional AIDSESEP–Ucayali (ORAU) is registered publicly in Pucallpa, Peru. The institution brings together 12 indigenous federations representing 14 ethnic groups and includes 398 titled native communities and 48 on the road to formal land titles. The majority of these communities are situated in the Ucayali, Pachitea, Yurúa and Purus watersheds, as well as the Gran Pajonal.

ORAU's mission is to promote the territorial rights of indigenous people, to strengthen bilingual intercultural education via the Atalaya pilot project, and—as part of the Universidad Nacional Indígena de la Amazonia Peruana—to protect indigenous health and value traditional medicine.

ORAU participates in developing community forest management plans, in managing the Reserva Comunal El Sira via the Eco Sira project, in managing the Reserva Territorial del Purus, and in representing indigenous interests in the working group for Zona Reservada Sierra del Divisor/Siná Jonibaon Manán.

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**Herbario Amazonense de la Universidad Nacional  
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The Herbario Amazonense (AMAZ) is situated in Iquitos, Peru, and forms part of the Universidad Nacional de la Amazonía Peruana (UNAP). It was founded in 1972 as an educational and research institution focused on the flora of the Peruvian Amazon. In addition to housing collections from several countries, the bulk of the collections consists of specimens representing the Amazonian flora of Peru, considered one of the most diverse floras on the planet. These collections serve as a valuable resource for understanding the classification, distribution, phenology, and habitat preferences of ferns, gymnosperms, and angiosperms. Local and international students, docents, and researchers use these collections to learn, identify, teach, and study the flora. In this way the Herbario Amazonense contributes to the conservation of the diverse Amazonian flora.

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**Museo de Historia Natural de la Universidad Nacional  
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Founded in 1918, the Museo de Historia Natural is the principal source of information on the Peruvian flora and fauna. Its permanent exhibits are visited each year by 50,000 students, while its scientific collections—housing a million and a half plant, bird, mammal, fish, amphibian, reptile, fossil, and mineral specimens—are an invaluable resource for hundreds of Peruvian and foreign researchers. The museum's mission is to be a center of conservation, education and research on Peru's biodiversity. It highlights Peru's status as one of the most biologically diverse countries on the planet, and that its economic progress depends on the conservation and sustainable use of its natural riches. The museum is part of the Universidad Nacional Mayor de San Marcos, founded in 1551.

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We thank Mark Bowler for the use of his photographs, Guillermo Knell for his superb video documentation of the inventory, and Nigel Pitman for allowing us to use his prose in “Why Sierra del Divisor?”

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## MISSION

The goal of rapid biological and social inventories is to catalyze effective action for conservation in threatened regions of high biological diversity and uniqueness.

### Approach

During rapid biological inventories, scientific teams focus primarily on groups of organisms that indicate habitat type and condition and that can be surveyed quickly and accurately. These inventories do not attempt to produce an exhaustive list of species or higher taxa. Rather, the rapid surveys 1) identify the important biological communities in the site or region of interest, and 2) determine whether these communities are of outstanding quality and significance in a regional or global context.

During social asset inventories, scientists and local communities collaborate to identify patterns of social organization and opportunities for capacity building. The teams use participant observation and semi-structured interviews to evaluate quickly the

assets of these communities that can serve as points of engagement for long-term participation in conservation.

In-country scientists are central to the field teams. The experience of local experts is crucial for understanding areas with little or no history of scientific exploration. After the inventories, protection of natural communities and engagement of social networks rely on initiatives from host-country scientists and conservationists.

Once these rapid inventories have been completed (typically within a month), the teams relay the survey information to local and international decisionmakers who set priorities and guide conservation action in the host country.

## REPORT AT A GLANCE

<b>Dates of fieldwork</b>	6–24 August 2005
<b>Region</b>	<p>Sierra del Divisor—known by its indigenous residents as <i>Siná Jonibaon Manán</i>, or “Land of the Brave People”—is a mountain range that rises up dramatically from the lowlands of central Amazonian Peru (Fig. 2A). This band of mountains runs roughly north to south and straddles the Peru–Brazil border.</p> <p>To the west of the Sierra del Divisor lies the Serranía de Contamana (Fig. 2A), which forms a narrow arc near the small town of Contamana. East of the Serranía de Contamana sits a remote, eye-shaped ring of ridges and valleys known as the Ojo de Contaya. Finally, to the south of the Sierra del Divisor, an isolated set of volcanic cones jut out of the lowlands (Figs. 1, 2A, 2B).</p> <p>Within central Amazonian Peru, the Sierra del Divisor is part of a series of low mountains that forms a broken chain extending from near the banks of the Río Ucayali eastward to the border with Brazil (Figs. 2A, 2B). The region lies mostly within the department of Loreto, but also stretches into the northernmost section of the department of Ucayali.</p> <p>Collectively, the entire complex of mountains—Sierra del Divisor, Serranía de Contamana, Ojo de Contaya, and the volcanic cones—is known as the Sierra del Divisor/Siná Jonibaon Manán Region. Zona Reservada Sierra del Divisor (which was established after our inventory) comprises this same region (Fig. 2A).</p>
<b>Biological Inventory Sites</b>	<p>The biological team surveyed three sites within Zona Reservada Sierra del Divisor (the “Zona Reservada,” Figs. 3A, 3B). The first was near the center of the Ojo de Contaya complex (Ojo de Contaya, Fig. 3A). The second was along the upper Río Tapiche, in the lowlands adjacent to the Sierra del Divisor (Tapiche, Fig. 3B). The third was within the Sierra del Divisor itself, near the border with Brazil (Divisor, Fig. 3B).</p>
<b>Organisms Studied</b>	Vascular plants, fishes, amphibians and reptiles, birds, medium to large mammals, and bats.
<b>Social Inventory Sites</b>	<p>The social team visited 9 of the 20 communities situated in and around the Zona Reservada (Fig. 2A), in four different drainages: the Río Abujao (C.N. San Mateo), the Río Callería (C.N. Callería, C.N. Patria Nueva, Guacamayo, Vista Alegre), the Río Tapiche (C. N. Limon Cocha, Bella Vista), and the Río Ucayali (C. N. Canchahuaya, Canelos).</p>
<b>Social focus</b>	Cultural and social assets, including organizational strengths, and resource use and management.

## REPORT AT A GLANCE

### Highlights of biological results

One of the most remarkable features of the Zona Reservada is the high concentration of rare and range-restricted species. Several of these species are known only from this region and occur in restricted habitats (e.g., the stunted forests on tops of sandy ridges).

Our inventory documented:

- 01 A bird species (Figs. 7C, 7D) previously known only from one ridge in Brazil, adjacent to the Zona Reservada; our record during the inventory was the second anywhere and the first in Peru.
- 02 A large community of primates, including species globally threatened or not previously protected within the Peruvian park system (SINANPE) (Figs. 8A, 8D).
- 03 Refuges of plant and animal species threatened elsewhere in the Amazon with commercial overexploitation and extinction.
- 04 Several dozen species of plants, fishes, and amphibians potentially new to science, as detailed below.

The number of rare and endemic species in the region is spectacular, even though, compared to other sites in Amazonia, the species richness itself may not be extraordinary (Table 1). Below we highlight some of our most interesting findings, including the discovery of species not previously known to science or reported from Peru, important range extensions of poorly known species, and discovery of substantial populations of threatened species.

**Table 1.** Number of species registered and estimated in Zona Reservada Sierra del Divisor.

Inventory site	Vascular plants	Fishes	Amphibians and reptiles	Birds	Large mammals
Ojo de Contaya	500	20	29	149	23
Tapiche	750	94	40	327	31
Divisor	600	24	32	180	18
Total for inventory	over 1,000	109	109	365	38
Estimate for the Zona Reservada*	3,000–3,500	250–300	over 200	570	64

\* We did not visit the sites in the region typical of Amazonian lowland forest, where expected numbers of species are high but expected endemism is low, but we include the richer Amazonian sites in our estimates of total species richness.

**Vascular plants:** We recorded nearly 1,000 species of the 2,000 predicted to occur in the central and eastern portions of the Sierra del Divisor Region. All sites we visited during the inventory were on sandy soils with low productivity.

When richer soils (present in areas north and south of the sites that we visited) are taken into account, we estimate a flora of 3,000–3,500 species for the region. At least ten species of plants encountered during the inventory are new to science, including several new trees. Among these are a miniature *Parkia* (Fabaceae) previously known only from photographs taken in Cordillera Azul, a national park in the Andean foothills ca. 675 km to the west. An abundant species in the stunted forests at Ojo de Contaya and Divisor appears to be a new species of *Pseudolmedia* or *Perebea* (Moraceae). In addition, two tree species in the Clusiaceae, a *Moronobea* and a *Calophyllum* (Fig. 4J), also potentially are new.

We found the majority of rare and/or new species in the stunted forests that dominate the ridge tops of the Ojo de Contaya and Divisor sites. We recorded reproductive individuals of several species of commercially valuable trees, such as *cedro* (*Cedrela* sp.) and *tornillo* (*Cedrelinga cateniformis*), that increasingly are threatened in other parts of Peru.

**Fishes:** We recorded 109 species of fishes during the inventory, and estimate that 250–300 species occur within the Zona Reservada. At least 14 species of fish found during the inventory are new to science or are new records for Peru. Fish species richness varied considerably from site to site. At the Tapiche camp (located on a major river and encompassing a variety of aquatic habitats), we recorded 94 species, whereas the low-productivity streams in Ojo de Contaya and Divisor harbored 20 and 24 species, respectively.

We recorded a variety of economically important fishes along the Tapiche, including fishes important for downstream human communities, such as *sábalos* (*Brycon* spp. and *Salminus*), *boquichico* (*Prochilodus nigricans*), *lisa* (*Leporinus friderici*), and *tigre zúngaro* (*Pseudoplatystoma tigrinum*, Fig. 5D), as well as ornamental fishes, such as glass fish (*Leptagoniates steindachneri*, Fig. 5B), *lisas* (*Abramites hypselonotus*), and a *Peckoltia* sp. (*carachama*, Fig. 5A).

**Amphibians and reptiles:** We recorded 109 species during the inventory, including 68 amphibians and 41 reptiles. Fourteen of these species (12% of the total number of species encountered) remain unidentified. Several of these probably are species new to science, including an unidentified species of *Eleutherodactylus* frog at the Divisor camp. Apart from a single species of salamander, all of the amphibians were frogs and toads. We registered 21

## REPORT AT A GLANCE

Highlights of  
biological results  
(continued)

snakes, 17 lizards, 2 turtles, and 1 caiman. At least two species are new records for Peru: a frog, *Osteocephalus subtilis*, found at both Ojo de Contaya and Divisor, and a coral snake, *Micrurus albicinctus* (Fig. 6E), found at Tapiche that represents a new venomous snake species for Peru.

**Birds:** We recorded 365 bird species in the three inventory sites. We estimate that 570 bird species occur in the Zona Reservada, including the avifauna predicted to occur in sites with richer soils in the northern and southern portions of the region. We registered several rare and patchily distributed species associated with forests on sandy soils, such as Rufous Potoo (*Nyctibius bracteatus*, Fig. 7A) and Fiery Topaz (*Topaza pyra*).

Our most outstanding record was the Acre Antshrike (*Thamnophilus divisorius*, Figs. 7C, 7D), which we found in the stunted ridge-crests forests at Ojo de Contaya and Divisor. This species previously was known from a single ridge in Brazil; our inventory indicates that the bulk of its population occurs within Peru. Along the Tapiche we recorded various endangered and/or threatened species including Blue-headed Macaw (*Primolius couloni*) and large numbers of various tinamou species. We encountered game birds (guans, *Penelope*; and curassows, *Mitu*) at all of our three sites. We were surprised to register an Oilbird (*Steatornis caripensis*) at the Divisor camp. Unexpected in Amazonia because they roost and breed in caves, it seems likely that small colonies of Oilbird live in the caves of the Sierra del Divisor mountains.

**Mammals:** We recorded 38 species of medium and large mammals during the inventory, almost two-thirds of the 64 species we estimate for the entire region. Of these, 20 species are considered threatened by the IUCN, CITES, or INRENA. The majority are primates: we found 13 species of marmosets and monkeys, with 12 species present at a single site (Tapiche)—a remarkable species richness for primates in the western Amazon.

Among the primates, two species are especially rare and poorly known: Goeldi's marmoset (*Callimico goeldii*, Fig. 8D) and red uakari monkeys (*Cacajao calvus*, Fig. 8A). This is the first protected area in Peru in which both species occur.

We found sizeable populations of several widespread large monkeys that are commonly hunted, such as black spider monkey (*Ateles chamek*) and common woolly monkey (*Lagothrix poeppigii*). We also found two other species vulnerable to hunting: the giant armadillo (*Priodontes maximus*) and the South American tapir (*Tapirus terrestris*).

**Human Communities and Highlights of Social Inventory:** Voluntarily isolated Iskonawa live in the southeastern portion of the Divisor region, within the Reserva Territorial (R.T.) Isconahua<sup>1</sup>, a 275,665-ha area established in 1998. Two additional Reservas Territoriales<sup>2</sup> (Yavarí-Tapiche and Kapanawa) have been proposed, but not established, in the northern and western portions of the region (Fig. 10B).

Several temporary camps have been established for larger-scale resource extraction in the north (logging along the Río Tapiche, Fig. 9A) as well as in the south (timber and mining concessions overlapping with the R.T. Isconahua) (Fig. 9B). Otherwise, human presence within most of the Zona Reservada appears to be minimal, with a few temporary dwellings established along rivers for small-scale resource extraction (e.g., medicinal plants, hunting, and fishing).

At least 20 communities—including indigenous people, many of whom have been resident for generations, and more recently arrived colonists—live adjacent to the Zona Reservada (Fig. 2A). Members of these communities depend on subsistence agriculture and low-impact use of natural resources (Fig. 11A). Resource extraction is largely for household consumption, although in some communities there is a small amount of commerce based on forest products. These neighboring communities value their forest-based lifestyle, which they perceive as threatened by outsiders and by large-scale, commercial, extractive industries (Fig. 9B). Several communities have organized themselves to promote local, sustainable practices of resource use.

#### **Main threats**

The main threats stem from large-scale extractive industries: logging, mining, and oil exploration (Fig. 9B). Pervasive logging in Amazonia poses an enormous threat to populations of the most commercially valuable timber species, often leading to local extinctions. There are proposed logging concessions in the north that overlap with the Zona Reservada and with the proposed Reserva Territorial Yavarí-Tapiche. Illegal logging is active even in the heart of the Zona Reservada (Fig. 9B). In the west and south, mining and oil exploration proposals ring the borders of the Zona Reservada, and in several places overlap with the Reserva Territorial Isconahua.

Other threats come from over-exploitation of wildlife. Illegal, commercial fishing is a concern for communities living around the edges of the Zona Reservada, especially in the north and south. On the upper Río Tapiche, we encountered eight species of fishes that are an important part of the Amazonian fisheries, including

<sup>1</sup> Peruvian indigenous organizations use the spelling “Iskonawa,” but the official name of the territorial reserve is “Isconahua.”

<sup>2</sup> Territorial reserves are now known as *Reservas Indígenas* in Peru, per a new law concerning areas designated for voluntarily isolated indigenous peoples (Law N<sup>o</sup>. 28736, 2006; see chapter about the legal status of the territorial reserves).

## REPORT AT A GLANCE

### Main threats (continued)

scaly fishes such as *Brycon* spp. and *Salminus (sábalos)*, *Prochilodus nigricans (boquichico)*, *Leporinus friderici (lisa)*, and large catfishes, such as *Pseudoplatystoma tigrinum (tigre zúngaro)*, Fig. 5D). These species were relatively abundant. Many of them migrate seasonally to the headwaters to spawn. The Zona Reservada may prove to be crucial in the life cycle of these fish species, which are important to the livelihoods of human communities living downstream. Also on the Río Tapiche, we found populations of two species of Amazonian turtles, *Podocnemis unifilis (taricaya)* and *Geochelone denticulata*, that are eaten by local people.

Birds that are hunted throughout Amazonia, such as curassows (*Mitu tuberosum*) and guans (*Penelope jacquacu*), were present at all three sites we sampled. Impressive quantities of tinamous were observed at Tapiche. We observed a small flock of Blue-headed Macaws (*Primolius couloni*) at the Tapiche camp. This species is almost entirely restricted to Peru, with a few sightings from immediately adjacent portions of Brazil and Bolivia, and was recently listed as endangered by BirdLife International.

We recorded 20 species of medium and large mammals that are considered threatened by IUCN, CITIES, or INRENA; 13 are primates. Some species are listed for their ecological rarity (Goeldi's monkey, *Callimico goeldii*, Fig. 8D; red uakari monkey, *Cacajao calvus*, Fig. 8A), and others because they experience heavy hunting pressure throughout Amazonia (e.g., South American tapir, *Tapirus terrestris*; giant armadillo, *Priodontes maximus*). We regularly encountered several monkey species that are hunted throughout their range and are among the first primate species to face local extinction (black spider monkey, *Ateles chamek*; and common woolly monkey, *Lagothrix poeppigii*).

### Current status

Upon leaving the field in August 2005, we immediately formed the Sierra del Divisor/Siná Jonibaon Manán Work Group. Composed of indigenous and conservation organizations dedicated to the region, the Work Group is focused on creating a united front of participating institutions to overcome the overwhelming threats to the region and to provide, as quickly as possible, strict and effective protection both to the indigenous groups in voluntary isolation and to the biological and geological treasures in the region.

The consensus-building effort resulted in the joint indigenous-conservationist request for Zona Reservada Sierra de Divisor, which was established on 11 April 2006 (*Resolución Ministerial 0283-2006-AG*; 1.48 million hectares; Fig. 2A). Protected status was our most urgent recommendation as we left the field, given the magnitude and intensity of the threats to the region. This joint



request for Zona Reservada came with the explicit understanding that the Work Group is committed to developing a strong, consensus recommendation for the final categorization of the Zona Reservada, to be presented and worked through with INRENA's official Categorization Committee (*Comisión de Categorización*).

**Principal recommendations for protection and management**

**01 Implement effective protection of Zona Reservada Sierra del Divisor.**

Protection of the Zona Reservada is urgent. Accelerating fragmentation of the region by roads, mining, oil exploration, and development constitutes an irreversible threat (Fig. 9B). Immediate and effective protection is crucial for the survival of indigenous peoples living in voluntary isolation as well as for the unique biological and geological conservation targets in the region.

**02 Develop strong consensus for the final categorization and eventual zoning of Sierra del Divisor/Siná Jonibaon Manán.** The joint request from indigenous and conservation organizations to Peru's president, to grant immediate protection to Sierra del Divisor through the category of "Zona Reservada," came with the explicit understanding that Zona Reservada is a provisional category. The next step is for the Sierra del Divisor Work Group to analyze priority sites for indigenous and conservation groups and to develop suitable recommendations for the official Categorization Committee (*Comisión de Categorización*) established by INRENA.

The latest map of priorities, as discussed in the Work Group meeting of 5 December 2006 (Fig. 10C), leads us to the preliminary recommendation of a complex of protected areas composed of two Territorial Reserves neighboring a National Park (Fig 10D). Our guiding vision is full support from both indigenous and conservation organizations for the final categorization.

**03 Anchor the protection and management of the Sierra del Divisor/Siná Jonibaon Manán Region on a solid collaboration among indigenous federations, local villages, and conservation organizations.** All are crucial for successful protection of this threatened and unique landscape.

**04 Strengthen the legal mechanisms to offer solid protection to indigenous people living in voluntary isolation.** Until recently, Reserva Territorial was the category assigned to lands with indigenous peoples living in voluntary isolation. However, the category lacked a strong legal backing (as is shown in Sierra del Divisor, where mining concessions were granted in the heart of the Reserva Territorial Isconahua). The Sierra del Divisor/Siná Jonibaon Manán Work Group joined others in pursuing a law that would protect voluntarily isolated indigenous peoples. The law, passed in 2006, still needs substantial modifications to afford

## REPORT AT A GLANCE

Principal recommendations  
(continued)

adequate protection. Revising and strengthening this legal framework is a vital next step for the protection of uncontacted indigenous peoples throughout Peru.

- 05 Rescind the mining concessions that overlap with the Reserva Territorial Isconahua.** The presence of mining activities directly contradicts the purpose of the Reserva Territorial, putting at risk the health and livelihood of indigenous people living in voluntary isolation (Fig. 9B).
- 06 Adjust the borders of the Zona Reservada to exclude the villages along the Río Callería and in Orellana** (as shown in Fig. 2A, 10C). These communities should not be included within a protected area.
- 07 Collaborate with local communities to develop locally based protection and management plans.** Communities bordering the Zona Reservada strongly support protection for the area and its resources.
- 08 Establish areas of strict protection to protect the voluntarily isolated peoples.** In close collaboration with the indigenous organizations, assign the highest category of protection to the portions of the Zona Reservada where indigenous peoples are believed to live in isolation. If ever these indigenous peoples opt for contact with civilization, appropriate studies must be conducted to determine the actual size of the lands to be titled in their names.
- 09 Involve the Matsés in the zoning, management, and stewardship of the northernmost section of the Zona Reservada (Fig. 2A, 10C, 10D).** This section of Amazonian lowlands is used by indigenous Matsés communities (Vriesendorp et al. 2006) and they are the natural stewards of these lands.

**Long-term conservation benefits**

- 01** The area's geological and climatic diversity are unique in Amazonia. The resulting high levels of biodiversity and endemism make Sierra del Divisor one of the highest conservation priorities in Peru.
- 02** The new Zona Reservada is contiguous with the 1.49-million-hectare Parque Nacional da Serra do Divisor and several other protected areas just across the border in Brazil, creating a binational conservation corridor that stretches from the Río Amazonas in the north to the Río Madre de Dios in the south. The western border of the Zona Reservada is nearly contiguous with the Parque Nacional Cordillera Azul, linking these isolated mountains to the main body of the Andes (Fig. 2B).
- 03** There currently are few people within the limits of the Zona Reservada. Careful categorization and zoning of the area, in cooperation with leaders of

indigenous organizations, will respect the territorial rights of indigenous peoples in voluntary isolation.

- 04 The area's scenic beauty and natural riches will be a major tourist attraction for Ucayali and Loreto. Special attractions include hot springs (where hundreds of macaws congregate for the mineral-rich water), volcanic massifs rising out of lowland forest, and 13 species of primates.

## Why Sierra del Divisor?

Rocky towers rise like exclamation marks over the surrounding lowlands.

A hot, sulfurous spring bubbles up from deep underground and the mist swarms with Scarlet Macaws attracted to minerals in the water. A great expanse of sandstone mesas and ridges, cut off from the rest of the world, stands unexplored in the endless Amazonian lowlands.

This is Sierra del Divisor, locally called Siná Jonibaon Manán, a complex of isolated mountains set like gems in Peru's Amazonian lowlands. Nowhere else in Amazonia is there comparable diversity of geology and climate. The jumble of ancient rock formations rising up in the midst of younger formations catch thunderstorms coming off the Amazonian plains. In the resulting mosaic of rain shadows, tall humid forests stand side by side with severely stunted shrublands. And many yet-to-be-described organisms, occurring here and nowhere else, live alongside the distinct flora and fauna that biologists already have registered.

Future alternatives for these forests are stark. Unless a unified, concerted group of people take effective action now, the loggers and miners working in and around the region will further invade and dissect its forests. This fragmentation will profoundly impoverish the unique plant and animal communities of the region, and catastrophically endanger its indigenous populations.

The new Zona Reservada creates a binational conservation expanse and an enormous conservation opportunity that is contiguous with a million-hectare conservation complex in Brazil (including the Parque Nacional da Serra do Divisor, Fig. 2A). Protection and successful stewardship of Sierra del Divisor will set an example of collaboration between two different constituencies—the conservation organizations and the indigenous communities—that will serve as a model to strengthen the protection of both the environment and traditional cultures in Peru.

# Conservation of the Sierra del Divisor

## CURRENT STATUS

The Sierra del Divisor/Siná Jonibaon Manán Region encompasses a jumble of overlapping proposals by conservation groups, indigenous peoples, and large-scale commercial enterprises. Immediately after we returned from the inventory in August 2005, we formed the Sierra del Divisor/Siná Jonibaon Manán Work Group to resolve several of these conflicting proposals and to build a strong consensus for effective protection of the area. Composed of the indigenous and conservation organizations dedicated to the region, members of the Work Group include the Organización Regional de AIDSESEP–Iquitos (ORAI), Organización Regional de AIDSESEP–Ucayali (ORAU), Asociación Interétnica de Desarrollo de la Selva Peruana (AIDSESEP), The Nature Conservancy–Peru (TNC), Pronaturaleza, Instituto del Bien Común (IBC), Derecho, Ambiente y Recursos Naturales (DAR), Centro de Investigación y Manejo de Áreas Naturales (CIMA), Sociedad Peruana de Derechos Ambientales (SPDA), Centro para el Desarrollo del Indígena Amazónico (CEDIA), Centro de Datos para la Conservación (CDC), and The Field Museum.

After a constructive year of joint efforts, the central goals of the Work Group remain (1) joining forces of the participating institutions to surmount the relentless threats to the region (mining, oil, illegal logging, lack of legal backing for Reservas Territoriales) and (2) developing viable mechanisms, as quickly as possible, to provide strict protection for the indigenous groups in voluntary isolation and the biological and geological treasures in the region. The Work Group devoted itself to working simultaneously on building a strong consensus proposal for safeguarding Sierra del Divisor/Siná Jonibaon Manán while strengthening the legal status of Reserva Territorial. We formed working subgroups and continue to meet regularly.

Our joint effort succeeded in the consensus indigenous-conservationist request for Zona Reservada Sierra de Divisor, which was established on 11 April 2006 (*Resolución Ministerial 0283-2006-AG*; 1.48 million hectares; Fig. 2A). Protected status through a Zona Reservada was our most urgent recommendation given the magnitude and intensity of the threats to the region. The joint request for Zona Reservada—a provisional designation within the Peruvian national

protected areas system (SINANPE)—came with the explicit understanding that the Work Group committed itself to building a consensus recommendation for the final categorization of the Zona Reservada, encompassing the indigenous and conservation visions, to be presented and worked through with INRENA's official Categorization Committee (*Comisión de Categorización*).

The Zona Reservada currently encompasses the Reserva Territorial (“R.T.”) Isconahua (275,665 ha; Fig. 2A). The R.T. Isconahua was established to protect the rights and livelihoods of voluntarily isolated Iskonawa. Reserva Territorial is a designation outside the purview of SINANPE and is administered by national indigenous institutions (AIDSEP and INDEPA). There are two additional proposals for Reserva Territorial status in Sierra del Divisor: the proposed R.T. Kapanawa (504,448 ha) lies in the central and western parts of the Zona Reservada, while the proposed R.T. Yavari-Tapiche (1,058,200 ha) partially overlaps the northern portion of the Zona Reservada.

The large-scale commercial enterprises in the region vary from proposed to established concessions. Some mining concessions, approved in 2004, are operational in the heart of the R.T. Isconahua. While none of the five oil concessions have yet been granted, all overlap partially with the Zona Reservada. Logging concessions in the north along the Tapiche drainage already are established and operational.

In December 2006, the Work Group requested that INRENA postpone its decision for final categorization of the Zona Reservada by four months to April 2007. The additional time will allow for crucial workshops in the region and gathering of data necessary for a consensus proposal for categorization. The recent joint map of conservation and indigenous priority areas, as discussed in the Work Group meeting of 5 December 2006, appears here as Figure 10C. The map does not yet include the priorities of ORAI and still needs additional input to reach full consensus.

## CONSERVATION TARGETS

The following species, forest types, biological communities, and ecosystems are of particular conservation concern in Zona Reservada Sierra del Divisor. Some of the conservation targets are important because they are unique; rare, threatened, or vulnerable elsewhere in Peru; key resources for the local economy; or Amazonia; or fulfill crucial roles in the function of the ecosystem.

- Biological Communities**
- Vast stretches of intact forest that form a corridor in Peru with Parque Nacional Cordillera Azul to the west, the proposed Reserva Comunal Matsés to the north, and in Brazil with the Parque Nacional da Serra do Divisor to the east (Figs. 2A, 2B)
  - Rare and diverse geological formations that occur nowhere else in Amazonia and include a series of sandstone ridges in the west (Serrania de Contamana, Ojo de Contaya) and east (Sierra del Divisor), and volcanic cones in the south (El Cono) (Figs. 2A, 2B)
  - A glorious mosaic of soil types: rich, high-diversity soils in the north; poor-to-intermediate fertility soils that harbor endemics in the central portion of the area; and volcanic soils in the south
  - Headwaters of the upper Río Tapiche, which are crucial for the migration and reproduction of fish species (including commercially important ones), and the headwaters of at least ten other rivers that originate in the region
  - Streams that drain soils of poor-to-intermediate fertility and may represent important speciation centers for various fishes
  - Stunted forests on poor soils occurring principally on hill crests (Figs. 3H, 3I)

Conservation Targets (continued)

	<p><b>Vascular Plants</b></p> <ul style="list-style-type: none"> <li>▪ Populations of timber species (such as <i>Cedrela</i> sp. and <i>Cedrelinga cateniformis</i>) that are logged at unsustainable levels elsewhere in Amazonia</li> <li>▪ Species endemic to habitats unique to the region, including several species new to science growing on sandstone ridges (<i>Parkia</i>, <i>Aparisthmium</i>, Fig. 4C)</li> </ul>
	<p><b>Fishes</b></p> <ul style="list-style-type: none"> <li>▪ Species of <i>Hemigrammus</i>, <i>Hemibrycon</i>, <i>Knodus</i>, and <i>Trichomycterus</i> (Fig. 5E) that are present in remote streams and likely restricted to the region</li> <li>▪ Species of Cheirodontinae present in the Río Tapiche and principal tributaries, including <i>Ancistrus</i>, <i>Cetopsorhamdia</i> (Fig. 5C), <i>Crossoloricaria</i>, and <i>Nannoptopoma</i>, which are probably restricted to the region</li> <li>▪ Species of importance for fisheries that represent significant sources of protein for local human communities, such as <i>Pseudoplatystoma tigrinum</i> (Fig. 5D), <i>Brycon</i> spp., a <i>Salminus</i> sp., <i>Prochilodus nigricans</i>, and a <i>Leporinus</i> sp.</li> <li>▪ Ornamental species of Cichlidae, Gasteropelecidae, Loricariidae, Anostomidae, and Characidae with commercial value and susceptible to overharvesting</li> <li>▪ Unique fish communities in the aquatic environments of Ojo de Contaya</li> </ul>
	<p><b>Amphibians and Reptiles</b></p> <ul style="list-style-type: none"> <li>▪ Species of economic value (turtles, tortoises, and caiman) that are threatened in other parts of their distributions</li> <li>▪ Rare species that represent new records for Peru (<i>Osteocephalus subtilis</i> and <i>Micrurus albicinctus</i>, Fig. 6E)</li> <li>▪ Amphibian communities that reproduce and develop in forest and stream environments (<i>Centrolene</i>, <i>Cochranella</i>, <i>Hyalinobatrachium</i>, <i>Colostethus</i>, <i>Dendrobates</i>, and <i>Eleutherodactylus</i>) (Figs. 6A, 6B, 6D)</li> </ul>



<b>Birds</b>	<ul style="list-style-type: none"> <li>▪ Acre Antshrike (<i>Thamnophilus divisorius</i>, Figs. 7C, 7D), a recently described species endemic to the region</li> <li>▪ Rare or poorly known bird species that are associated with white-sand or stunted forests, such as Rufous Potoo (<i>Nyctibius bracteatus</i>, Fig. 7A), Fiery Topaz (<i>Topaza pyra</i>), and Zimmer's Tody-Tyrant (<i>Hemitriccus minimus</i>)</li> <li>▪ Macaws, especially the Blue-headed Macaw (<i>Primolius couloni</i>), which is restricted to a small population living almost exclusively in Peru</li> <li>▪ Game birds (tinamous, cracids) that typically suffer from hunting pressure in other parts of Amazonia</li> </ul>
<b>Mammals</b>	<ul style="list-style-type: none"> <li>▪ A large and diverse primate community of 15 species (13 recorded during this inventory and an additional 2 known from previous inventories)</li> <li>▪ Two rare and patchily distributed monkeys, Goeldi's monkey (<i>Callimico goeldii</i>, Fig. 8D) and red uakari monkey (<i>Cacajao calvus</i>, Fig. 8A)</li> <li>▪ Healthy populations of heavily hunted large mammals, such as black spider monkey (<i>Ateles chamek</i>), common woolly monkey (<i>Lagothrix poeppigii</i>), and South American tapir (<i>Tapirus terrestris</i>)</li> <li>▪ Carnivores with large home ranges, such as jaguar (<i>Panthera onca</i>) and puma (<i>Puma concolor</i>)</li> </ul>
<b>Human Communities</b>	<ul style="list-style-type: none"> <li>▪ Extensive cultural knowledge of the environment</li> <li>▪ Lifestyles compatible with low-impact use of natural resources (Figs. 11A, 11D)</li> <li>▪ Strong local commitment to environmental protection and to sustainable use of natural resources (Fig. 11D)</li> <li>▪ Organizational capacity for the protection of natural resources</li> </ul>

## THREATS

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The biological and cultural integrity of the region face serious and immediate threats, including:

### **Illegal logging**

Logging poses a primary threat to timber species, and often a secondary threat to mammal and bird populations hunted by loggers. Illegal logging is evident in and around the Zona Reservada, occurring well within the heart of the Zona Reservada along the Río Tapiche (Figs. 9A, 9B). To the north, logging concessions overlap with the proposed Reserva Territorial Yavarí-Tapiche (Figs. 9A, 10B).

### **Mining and oil exploration**

Impacts of mining and oil exploration are typically first observed in nearby streams and rivers and then cascade to fishes and the terrestrial fauna. Concessions for mining and for oil exploration overlap in the south with the Zona Reservada and Reserva Territorial Isconahua (Fig. 9B).

### **Unregulated commercial fishing**

Commercial fishing operations can gravely impact fish populations. Freezer-equipped fishing boats allow commercial fishers to store large fish catches and can accelerate local extinctions of fish populations. Moreover, some fishermen use explosives or poisons—techniques that are indiscriminate in their effects and are damaging not only to fish populations, but also to other aquatic fauna and habitats. Unregulated commercial fishing ranks high among the concerns of communities living near the borders of the Zona Reservada.

## RECOMMENDATIONS

Zona Reservada Sierra del Divisor is among the highest conservation priorities in Peru. Immediate threats to the biological and cultural values of the region generate the urgency for protection. The threats range from mining concessions to illegal logging; from plans for a major highway through the area, to additional mining and oil interests. Of our rapid inventories to date, this region demands the swiftest action.

Below we highlight a set of recommendations to secure effective conservation of the region before degradation and fragmentation transform the landscape.

### Protection and Management

#### *Designate protected status*

- 01 Develop strong consensus for the final categorization and eventual zoning of the Sierra del Divisor/Siná Jonibaon Manán Region.** The joint request from indigenous and conservation organizations to Peru's president, to grant immediate protection to Sierra del Divisor through the category of "Zona Reservada," came with the explicit understanding that Zona Reservada is a provisional category. The Sierra del Divisor Work Group committed itself unanimously to analyzing priorities for indigenous and conservation stakeholders as the base for building suitable recommendations to the official Categorization Committee (Comisión de Categorización) established by INRENA.

On 5 December 2006, the Work Group created the first joint map of conservation and indigenous priority areas within the Zona Reservada (Fig. 10C). Because ORAI was unable to participate in this meeting, (1) ORAI priorities do not yet figure on the map, and (2) the ORAI proposal for a Territorial Reserve still needs to be reconciled with on-the-ground reports provided by previously uncontacted Matsés. Despite the missing information from ORAI, the priority map led us to the preliminary recommendation of a complex of protected areas, composed of two Territorial Reserves and one National Park (Fig. 10D).

On 12 December 2006 the Work Group sent a joint letter to INRENA, supporting the request from the indigenous organizations (ORAI, ORAU, AIDSESEP) for four additional months to gather crucial data. By April 2007 there should be a final recommendation for the categorization of Zona Reservada Sierra del Divisor that integrates the vision of an efficiently protected area addressing both indigenous and conservation priorities.

- 02 Establish appropriate categorization and zoning to provide strict protection to all areas where indigenous peoples reportedly live in voluntary isolation (Figs. 10B, 10C).**

## RECOMMENDATIONS

Protection  
and Management  
(continued)

- 03 **Establish appropriate zoning to ensure continued traditional use by the Matsés of the northeasternmost corner of the current Zona Reservada (Figs. 10C, 10D).**
- 04 **Redefine the limits of the protected area to exclude existing settlements (Figs. 10C, 10D).** Several small settlements exist inside Zona Reservada Sierra del Divisor, especially along the Río Callería. These settlements and the adjacent areas used by community members should be removed from the Zona Reservada. The limits of the already existing Reserva Territorial Isconahua also must be adjusted to eliminate the current overlap with the titled lands of the native community of San Mateo.
- 05 **Capitalize on the opportunities of the binational conservation corridor with the adjacent protected areas in Brazil.** By coordinating management of the Zona Reservada in Peru with the Parque Nacional da Serra do Divisor and several extractive indigenous reserves in Brazil, the protected lands would total more than 3 million hectares.

*Ensure broad participation in conservation efforts*

- 06 **Combine efforts of interested indigenous federations and conservation organizations to promote immediate protection and co-management for conservation of Zona Reservada Sierra del Divisor.** Both groups share concern for (a) the indigenous peoples living in voluntary isolation in the wilderness of the Zona Reservada, and (b) the biological and geological treasures in the region. Working together, the two constituencies must stress the importance of the region to the highest levels of government and secure effective protection of the region for eventual co-management.
- 07 **Act immediately with local residents and local and regional institutions to counter illegal activities.** Invasion of the region by commercial activities is rampant, yet neighboring communities openly express their desire to protect the area. Conservation and indigenous organizations concerned with the region should coordinate and mobilize local residents to patrol the region and to curb illegal activities. The locally based protection system should be discussed with the regional governments of Ucayali and Loreto, and with the appropriate unit of the national government (INRENA), and then implemented promptly.
- 08 **Establish strong partnership among conservation groups, indigenous federations (national, regional, and local), government agencies (protected areas and indigenous rights), and funding entities for efficient protection action in the region.** Only through tight partnerships and constant communication at all levels will it be possible to implement a long-term

plan to protect the area while maintaining and improving the quality of life of neighboring villages. Activities in the buffer zone of the Zona Reservada must attract ecologically compatible economic investments that reduce the income gap of local residents.

- 09 **Develop an effective system of co-management so that the entire unit is fully protected.** Although this will require a tremendous amount of work because there is no precedent in Peru, it is of paramount importance for the well-being of all cultural and biological values in the Zona Reservada and its surrounding buffer zone.

*Resolve conflicts*

- 10 **Secure legitimacy and solid legal backing for indigenous peoples in voluntary isolation.** Historically, *Reserva Territorial* was the category used in Peru to protect tracts of wilderness that shelter indigenous groups who chose to live without contact with western civilization. These lands, now termed *Reservas Indigenas*, should receive the strictest protection until the indigenous group, of its own accord, seeks contact. Without an explicit request for contact, the area must remain strictly protected (*zona intangible* in Peru) to safeguard the lives of peoples highly vulnerable to contact with common western diseases.

At present, the category of Reserva Indigena still lacks the appropriate definition and legal backing to secure strict conservation of the land and its peoples (see chapter about the legal status of territorial reserves). This lack of protection is markedly evident throughout the history of Reservas Territoriales in Peru. Not only do these areas receive no protective action, they are usually fragmented by government-approved roads, oil pipelines, and mining concessions, and they are mercilessly invaded by illegal loggers and miners. Without a powerful and effective mechanism in place to secure the Reservas Indigenas—with appropriate regulations, responsible entities, and adequate funding—the Sierra del Divisor/Siná Jonibaon Manán Region and its peoples will be exposed to severe dangers (Fig. 9B).

- 11 **Deactivate the mining concessions that have been granted inside Reserva Territorial Isconahua (Fig. 9B).** Immediate removal of these concessions is imperative for protection of the lives of the indigenous peoples in voluntary isolation and for the conservation of unique geological formations in Amazonia.
- 12 **Evaluate the proposed Reserva Territorial Yavarí-Tapiche and the proposed Reserva Territorial Kapanawa and accommodate the boundaries to protect voluntarily isolated indigenous peoples (Fig. 10B).**

## RECOMMENDATIONS

Protection  
and Management  
(continued)

- 13 **Resolve the status of the proposed logging concessions that overlap with the Reserva Territorial Yavarí-Tapiche proposed by AIDSESP (Figs. 9B, 10B).** Clarification of the boundaries of the logging concessions and the proposed Reserva Territorial Yavarí-Tapiche should be a high priority after evaluation of the Reserva Territorial proposal. The overlap between these two proposals needs to be resolved to ensure definite, protected boundaries for Zona Reservada Sierra del Divisor and for noncontacted indigenous peoples.

Further inventory

- 01 **Continue basic plant and animal inventories, focusing on other sites and other seasons.** Survey aquatic habitats in the headwaters of rivers in the highlands of the Ojo de Contaya and the Sierra del Divisor, such as the Rios Blanco, Zúngaro, Bunyuca, Callería, and Utuquinía. The ancient volcanic cones and the surrounding forests and streams in the southeastern portion of the Zona Reservada are a high priority for both aquatic and terrestrial inventories. We recommend inventories during other seasons of the year, particularly during the wet season (October–March) when amphibians are more active and easier to sample.
- 02 **Map the large geological formations within the Zona Reservada.** Our few water and soil samples from Ojo de Contaya and the Sierra del Divisor did not survey the full range of habitats within the region, nor did we survey the geological variability of the underlying rocks.
- 03 **Search for the Acre Antshrike (*Thamnophilus divisorius*) at additional localities.** We anticipate that this bird species, endemic to the Sierra del Divisor region, will be found in suitable habitat throughout the region. The habitat—stunted forests on ridge crests—is patchily distributed; it should be determined whether the antshrike occurs at all sites with sufficient habitat.
- 04 **Continue surveys for bird specialists of white-sand habitats with nutrient-poor soils.** We suspect that some of the rare and poorly known white-sand bird species, currently known from only one or a few localities each within the Zona Reservada, are more widespread. Inventories should focus on documenting the distribution and relative abundances of these species.
- 05 **Search for bird species that nest at cliff faces, caves, and waterfalls of the Ojo de Contaya and Sierra del Divisor sites.** We strongly suspect that Oilbird (*Steatornis caripensis*) and some swifts (Apodidae), otherwise known only from the Andean foothills west of the Río Ucayali, nest in similar habitats in the Sierra del Divisor region.

## Research

- 01 **Evaluate the impact of fishing by local communities.** Determine which species of fishes are most commonly captured, the relative abundances of these species, and the locations of the most heavily fished waters. A baseline evaluation of the fish resources of the area will be critical for the long-term management of fish populations in rivers within the Zona Reservada.
- 02 **Research the reproductive biology of fishes in the Zona Reservada.** Confirm whether there are seasonal movements during periods of reproduction into the headwaters of rivers draining the mountain ranges in the region.
- 03 **Investigate the feasibility of developing aquaculture in the region with native fish species.** Aquaculture might provide a significant source of protein for communities in the area. Prime candidates for feasibility studies include fast-growing native species, such as *boquichicos* (*Prochilodus nigricans*), *sábalos* (*Brycon* spp. and *Salminus*), and cichlids. Explore the possibility that aquaculture could be used to restock populations of rare fish species, such as *arahuana* (*Osteoglossum bicirrhosum*).
- 04 **Document range limits of species and biogeographic barriers in the region.** Several species pairs of birds apparently replace one another within the Zona Reservada in the absence of any obvious geographic barrier (such as a large river) and with no apparent concordance of distributional limits between different pairs of species. The region offers a unique opportunity to investigate the roles of history and habitat heterogeneity in determining bird species distribution.
- 05 **Study small mammals and bats throughout the Zona Reservada.** The communities of small mammals and of bats in the region remain almost entirely unknown. A particularly interesting habitat for study would be the stunted forests on ridge crests, which may harbor habitat specialists.
- 06 **Investigate the presence at Ojo de Contaya of two apparently different forms of black spider monkey (*Ateles chamek*).** The two forms of *Ateles* differ only in the color of the bare facial skin (red vs white to blackish), as far as we could determine. We do not know the taxonomic status of these two forms; they may represent individual variation within a single species, or two different sympatric species.
- 07 **Investigate the habitat preferences of red uakari monkey (*Cacajao calvus*).** Our observation of this rare monkey on ridge crests or at sites far from *Mauritia* palm swamps was completely unexpected. We recommend

Research  
(continued)

determining whether this species is less closely associated with palm swamps than previously reported (or whether they migrate seasonally).

**Monitoring**  
(of conservation  
targets) **and survey**  
(of other species)

- 01 **Survey fish, and game (bird, mammal) populations.** Collect data on the identities and relative abundances of the most frequently fished or hunted species, and sites within the region where fish or game are most abundant. Such information will provide the baseline data on game populations and will allow for recommendations of potential no-hunting areas that could serve as source populations.
- 02 **Create a practical monitoring program that measures progress toward conservation goals established in a long-term management plan for the region.**
- 03 **Document illegal incursions into the area, via the established patrolling system** (see Recommendation 07, under Protection and management, above).



## OPPORTUNITIES FOR CONSERVATION

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The Zona Reservada provides an enormous opportunity to protect a unique part of Amazonia, with all of its biological, cultural, and geological features intact. The Zona Reservada:

- 01 **Protects unique geological features.** Sierra del Divisor is geologically distinct from the rest of the Amazonian region and constitutes the only mountains in the Peruvian Amazon (Fig. 2B).
- 02 **Forms a binational conservation area,** directly adjacent to Brazil's Parque Nacional da Serra do Divisor (to the east) and close to Parque Nacional Cordillera Azul in Peru (to the west; Fig. 2A).
- 03 **Protects indigenous peoples living in voluntary isolation (Figs. 2A, 10B).**
- 04 **Shelters a biological community rich in globally endemic, rare, and threatened species of plants and animals,** including species of commercial value that are overexploited in other regions.
- 05 **Enables a partnership with residents of neighboring villages,** many of whom share a common vision of protecting the natural resources that sustain their livelihoods (Figs. 11B, 11E).