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Brown bear family near Shemonaiha, East Kazakhstan. Illegal killing is the greatest threat to these bears. Habitat degradation and loss, and displacement from ecotourism are additional threats. To learn more see article on page 27.

Pursuing the Spectacled Bear Footprint at the Huiquilla's Forest, Northern Peruvian Yungas

Marco A. Enciso

Faculty of Veterinary Medicine and Animal Science. Universidade de São Paulo

São Paulo, Brazil

Email: marco.enciso@gmail.com

Diana Gálvez-Roeder

Faculty of Veterinary Medicine and Animal Science. Universidad Científica del Sur

Lima, Peru

Email: diana.galvezroeder@gmail.com

José La Torre

Área de Conservación Privada Huiquilla

Amazonas, Peru

Email: jlatorrem@gmail.com

The Peruvian yungas are sub-tropical mountain deciduous and evergreen forests which flank the eastern slopes and central valleys of the central Andes from northernmost to southernmost Peru. This region maintains one of the richest montane forest ecosystems in the Neotropics. Vegetation is extremely diverse, and in many places forms an elaborate mosaic of habitat types. Many species of plants, birds, mammals, reptiles, amphibians and invertebrates are found only in this part of the planet (WWF, 2008). This habitat type is commonly preferred by Spectacled bears (Tremarctos ornatus), along their distribution.

Since our first confrontation with an individual of *T. ornatus* in a zone outside of

modeled distribution area for northern Peru (Enciso, 2008), we proposed a project to investigate the presence of the species.



Fig. 2- Spectacled bear scratch mark at a tree.



Fig. 1- The forest and grassland (bottom) of Huiquilla.

A grant sponsored by The Scott Neotropical Fund 2009, of the Cleveland Metroparks Zoo-USA, has enabled us to study the species in its natural habitat, update its distribution pattern and status and investigate any other factors that might be present with the occurrence of T. ornatus in the area.

The study area was located at Huiquilla (www.huiquilla.org), a Private Conservation Area (PCA), near to Choctámal village (Lónguita District) and "in front of" Kuelap fortress, edification of Chachapoyas ancient culture (Luya Province, Amazonas Department, 6°23′ S, 7°59′ W). This conservation area (Fig. 1) comprises around 1140 hectares of protected forest and páramo from 2500 to 3300 m.a.s.l. The study was carried out during September 2009 in the end of dry season until April 2010 in the end of rainy season. We evaluated ten locations of the PCA using transects and camera trans.

Each available transect was walked 8-10 days in total. Along the transects we recorded the different types of Spectacled bear sign:

Americas.

scat, footprints, tree nests, scratch marks (Fig. 2), feeding sites, beds and bear paths. We found several feeding sites, around 35, neighboring the sample points, with more prevalence of bromeliad plants of the genus Tillandsia in the mountain forest, and Puya in the páramo grassland (Fig.3). We evaluated more than 30 km2 including the community in front of Huiquilla, the "Wala hill", where the local people report the Spectacled bear presence.

Since the main objective was to record the species through photographs, ten camera-traps were used, six Wildview® IR5 and four StealthCam® SniperIR. To maximize the possibility of occurrence of records, we determined ten stations, each one with a camera. Each station was in operation for 30 to 65 days each period (dry/rainy season).

Spectacled bear's presence was not recorded clearly through camera-trapping (Fig. 4), but we identified some species that could

Fig. 3- Marco Enciso is identifying a feeding site of Puya, near to Wala hill.

comprise their diet (Figueroa & Stucchi, 2009), such as mammal species, including mountain paca (*Cuniculus taczanowskii*) and northern Pudu or Sachacabra (*Pudu mephistophiles*), and avian species, including Andean guan (*Penelope montagnii*) and Tinamous (*Crypturellus spp.*). At the same time we identified other mammal carnivores that compete with mountain

Stealth Cam

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Fig. 4- Spectacled bear pass along the camera?. Effectively the species is very elusive in montane forest. We assume one T. ornatus because the distance between in camera and the animal registered was big, more than 10 m. The altitude of this point was around 3000 m.a.s.l.

puma (*Puma concolor*) and margay (*Leopardus wiedii*) (Fig. 5).

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During the fieldwork, we worked with the local population to help them understand the importance of conserving the Spectacled bear. We noted increased deforestation as a result of land use for potato crops and livestock, as well as bear hunting and hunting of other endangered species such as Sachacabra (*P. mephistophiles*) and Hairy armadillo (Dasypus pilosus). We also noted the presence of traffic of coca leaf and the potential threat thereof to researchers, as well as theft of equipment, more recently along the border of the PCA with more distant communities.

The short duration of the project in combina-

tion with some difficult field conditions did not allow the thorough assessment of the status of the population of Spectacled bears in the area. However, the data of the project indicate the clear presence of more than one individual; only long-term and systematic monitoring efforts of the species in the field will provide the information required to reach the objective of mapping the population status in the area, which appears as a corridor for *T. ornatus*, with connectivity with others PCAs relatively close, and which is threatened by the factors described above.

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Fig. 5- Some camera-trap records. A.- Pudu mephistophiles, B.- Cuniculus taczanowskii, C.- Penelope montagnii and D.- Puma concolor.





International Bear News Distribution 19625 Charline Manor Road Olney MD 20832 USA

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The International Association for Bear Research and Management (IBA) is a non-profit tax-exempt organization open to professional biologists, wildlife managers, and others dedicated to the conservation of all bear species. The organization has over 550 members from over 50 countries. It supports the scientific management of bears through research and distribution of information. The IBA sponsors international conferences on all aspects of bear biology, ecology, and management. The proceedings are published as peer-reviewed scientific papers in the journal *Ursus*.

IBA Mission Statement

Goal: The goal of the International Association for Bear Research and Management (IBA) is to promote the conservation and restoration of the world's bears through science-based research, management, and education.

Objectives: In support of this goal, IBA's objectives are to:

- 1. Promote and foster well-designed research of the highest professional standards.
- 2. Develop and promote sound stewardship of the world's bears through scientifically based population and habitat management.
- 3. Publish and distribute, through its conferences and publications, peer-reviewed scientific and technical information of high quality addressing broad issues of ecology, conservation, and management.
- 4. Encourage communication and collaboration across scientific disciplines and among bear researchers and managers through conferences, workshops, and newsletters.
- Increase public awareness and understanding of bear ecology, conservation, and management by encouraging the translation of technical information into popular literature and other media, as well as through other educational forums.
- 6. Encourage the professional growth and development of our members.
- 7. Provide professional counsel and advice on issues of natural resource policy related to bear management and conservation.
- 8. Maintain the highest standards of professional ethics and scientific integrity.
- 9. Encourage full international participation in the IBA through the siting of conferences, active recruitment of international members and officers, and through financial support for international research, travel to meetings, memberships, and journal subscriptions.
- 10. Through its integrated relationship with the Bear Specialist Group of the World Conservation Union (IUCN)/Species Survival Commission, identify priorities in bear research and management and recruit project proposals to the IBA Grants Program that address these priorities.
- 11. Build an endowment and a future funding base to provide ongoing support for IBA core functions and for the IBA Grants Program.
- 12. Support innovative solutions to bear conservation dilemmas that involve local communities as well as national or regional governments and, to the extent possible, address their needs without compromising bear conservation, recognizing that conservation is most successful where human communities are stable and can see the benefits of conservation efforts.