

Andean Bear Conservation Alliance

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Introduction and Need

Andean bears are an important flagship for the unique and fragile Tropical Andes ecosystem, the richest and most biologically diverse region on earth. Currently listed as vulnerable, the species faces a number of threats including habitat reduction and fragmentation, human induced mortality, insufficient scientific knowledge on distribution, threats and trends in bear populations, and lack of institutional capacity to manage protected areas and populations.

More than ten years ago the Andean Bear Conservation Action Plan (Peyton 1999) noted that the level of information on Andean bears and their needs was in its infancy, and pointed out 5 specific recommendations for the conservation of the species, including the need to:

- Strengthen institutions through trained staff and funding to improve the abilities of central government to enforce policies
- Research and monitor distribution, threats and trends in Andean bear populations and habitat

In order to design effective conservation plans for Andean bear populations, updated and accurate information on the species distribution, abundance and conservation status is needed. This important information is still lacking for many parts of the Andean bear range.



Action

An alliance of dedicated institutions, with clear goals and lines of actions, can help to address this information gap by consolidating efforts around a common action plan for Andean bear conservation. The Andean Bear Conservation Alliance (ABCA) is a partnership initiative of the Wildlife Conservation Society and Cleveland Metroparks Zoo, in collaboration with the IUCN Bear Specialist Group and other partners. The goal is to provide direction, focus and support to key Andean bear conservation efforts targeted toward a specific long-term conservation goal.

The proposed five-year action plan of the Alliance, "Andean Bear Distribution & Status: a regional conservation initiative of the Andean Bear Conservation Alliance", will produce an accurate and updated assessment of the distribution and status of the remaining Andean bear populations through targeted research, exploration and capacity-building projects done in collaboration with governmental and non-governmental organizations in Andean bear range countries.



Strategy

The action plan will focus efforts on analyzing the state of the remaining wilderness areas within the Andean bear range. Studies will investigate the size, fragmentation and degradation of wilderness areas, and evaluate the presence/absence and habitat use of the Andean bear using inexpensive, effective, rapid and replicable techniques. The goals of the plan will be achieved by focusing on two lines of action: capacity building; and research and explorations.

Capacity Building

Capacity building is the cornerstone of this initiative. A large group of specially trained people and institutions working throughout the Andean bear range with effective tools to gather information and implement conservation measures is the key to the preservation of many populations of Andean bears. To be effective those people must be part of or supported by the local institutions involved in the conservation of the species. Capacity building activities will be focused on National Park System personnel and young science professionals. Two types of workshops will be developed and carried out in Colombia, Ecuador, Peru and Bolivia:

- Andean bear activity/signs identification and survey & monitoring workshops
- Wide Range Priority Assessment Workshops

The top participants from the capacity building workshops will be invited to participate in the explorations and will form part of the exploration teams.



Andean bear (*Tremarctos ornatus*) range
Data source: IUCN 2008

Research and Explorations

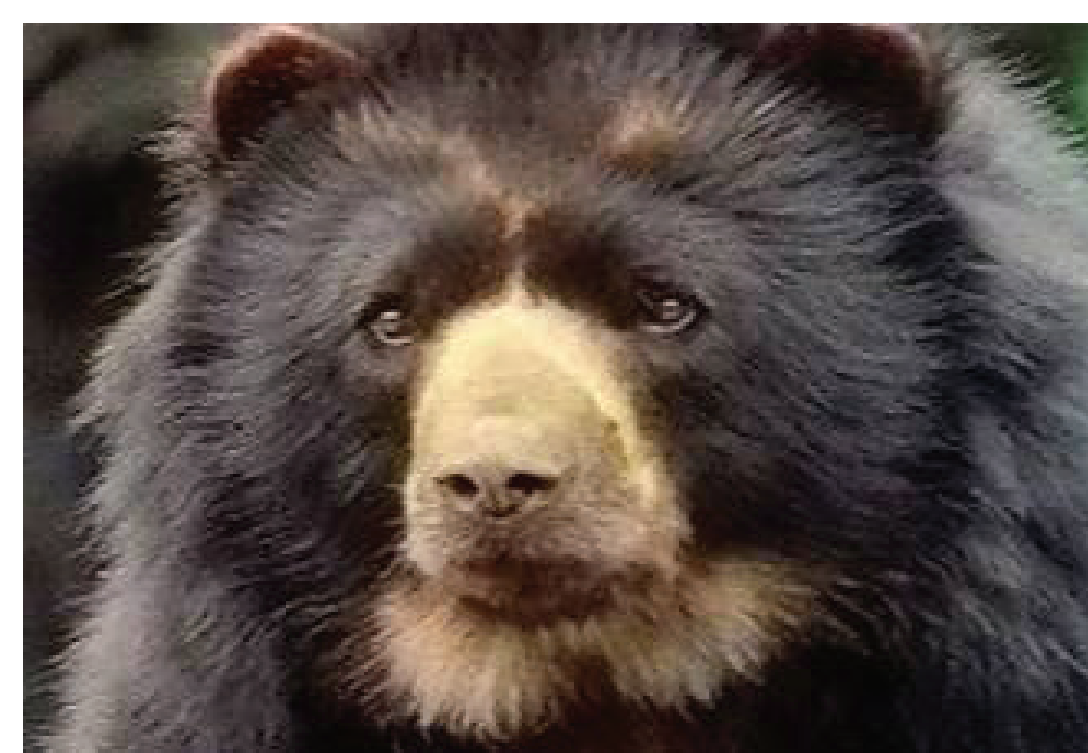
Knowledge of Andean bear distribution, abundance and conservation status is needed in order to develop and manage conservation programs for this species. Techniques that are effective, inexpensive, rapid, and repeatable need to be developed and utilized to carry out surveillance and monitoring of Andean bear presence, activity and abundance in wilderness areas. See **Research Methods***

Proposed research studies in Colombia, Ecuador, Peru and Bolivia are:

- Distribution and conservation status of key Andean bear populations
- Establishing monitoring program at key landscapes for Andean bear conservation
- Andean bear genetic diversity at key landscapes for Andean bear conservation

Explorations

The goal of the explorations is to evaluate the presence and conservation status of the Andean bear in previously unknown site or areas with particular interest to Andean bear conservation. Previous explorations have occurred in Colombia, Ecuador, Bolivia and Panama. Explorations are the consolidation of capacity building efforts and will utilize workshop participants and developed survey techniques.

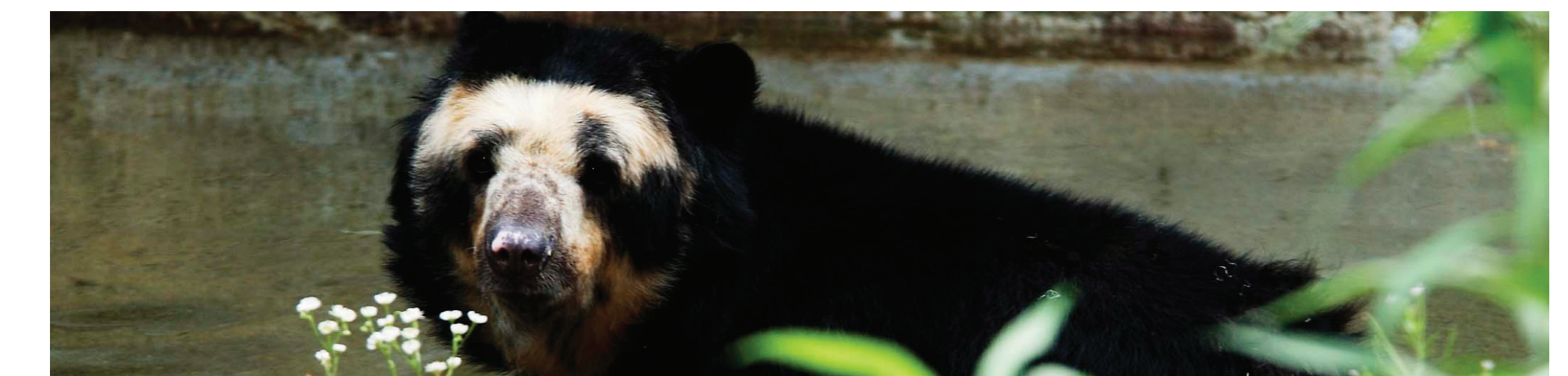


Andean Bear Conservation Alliance

A large group of specially trained people and institutions working with effective tools to gather information and implement conservation measures is the key to preservation of Andean bear populations, and targeted and strategic support from an alliance of like-minded institutions and organizations is essential. The Alliance has working relationships in all of the countries in the Andean bear's range and will involve many people working on Andean bear conservation. The research methods and training being proposed has already been shown to be successful. Alliance funding will be leveraged and more than matched by the governmental and private agencies in each country.

Carrying out the activities of the Alliance action plan will ensure that:

- Capacity building that promotes Andean bear conservation will occur on an on-going basis
- Scientists will be trained to collect data on Andean bears in a consistent and systematic way – so that resulting data can be utilized by numerous entities, on local, national and regional levels
- Data collected will be of great value. It will be fed directly into national governmental conservation agencies and utilized to promote Andean bear conservation on the ground.
- Most people working on Andean bears will be involved in the alliance through collaboration, capacity building, research, and explorations and all information will be shared within the Andean bear "community"
- We will know a great deal more about the status and distribution of Andean bears and be able to approach a regional conservation action plan for the species



Research Methods

A number of non invasive methodologies have been tested to gather information on Andean bear presence/absence, habitat use, and the genetic structure of populations. Probability of presence models, wide range conservation assessments, game trail surveys, hair collection for DNA fingerprinting at Andean bear mark-remark sites, and camera-trapping have been used in the evaluation of Andean bear distribution, habitat use, and conservation status. The information gathered to date suggests that a two step approach should be developed to best investigate Andean bear distribution and status.

(1) The probable distribution of the Andean bear should be evaluated through a coarse-grained "Preliminary Diagnostic of the Distribution and Conservation Status of Andean Bear Populations" at a regional or country level. The conservation status of the wilderness tracks identified as Andean bear areas should be evaluated with a "Range Wide Conservation Assessment" based on the probability of presence model for wilderness tracks at a country level.

• These efforts will produce the "Distribution and Conservation Status of Andean Bear Populations" and will provide the baseline for development of the "Strategy for the Conservation of Andean Bear Populations".

(2) The fine-grained assessment should be done through selective field surveys, using survey techniques already developed or currently being developed.

• These assessments should be done utilizing the localities chosen by the "Strategy for the Conservation of Andean Bear Populations" as priority areas for conservation actions.

This approach is based on the "Rapid Assessments Method to Determine Andean Bear Presence and Habitat Use". This survey method has been tested in wilderness areas in Venezuela, Colombia, Ecuador Peru and Bolivia and has proven to be effective in assessing bear presence and level of use in blocks of 8000 to 10000 hectares. Another methodology being tested for monitoring Andean bear presence, abundance and habitat use in paramo habitats is investigating the viability of using bear activity signs gathered at randomly located transects. This pilot study is part of the Andean Bear National Monitoring Program for the National Parks of Colombia.