

Andean bear survey in Peru Finds humans not the only visitors to Machu Picchu

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A year-long survey conducted by SERNANP and WCS found the presence of Andean bears in more than 95 percent of the 368-square-kilometer study area within the Historic Sanctuary of Machu Picchu, home to the famous Incan ruins of Machu Picchu and one of the most visited places in South America. Credit: © Ever Chuchullo

A recent wildlife survey led by SERNANP (Servicio Nacional de Áreas Naturales Protegidas por el Estado) and WCS (Wildlife Conservation Society) in the Historic Sanctuary of Machu Picchu in Peru has confirmed that the world-famous site is also home to a biologically important and iconic species: the Andean bear (*Tremarctos ornatus*).

Funded by the Andean Bear Conservation Alliance, the U.S. Agency for International Development, and the Gordon and Betty Moore Foundation, the year-long survey revealed the presence of Andean bears in more than 95 percent of the 368-square-kilometer study area, which includes the famous Incan ruins of Machu Picchu, one of the most visited places in South America. While it was previously known that Andean bears existed in the sanctuary, the new survey's findings reveal a much wider presence of bears throughout the protected area.

The Historic Sanctuary of Machu Picchu is classified as a World Heritage site by UNESCO (the United Nations Educational, Scientific, and Cultural Organization) and is one of only 35 sites worldwide listed as a mixed natural and cultural site. The findings from this survey are critical for establishing a baseline for future assessments and to plan for the long-term conservation of Andean bears both within and beyond the sanctuary.

"It is amazing that this world famous location is also important habitat for Andean bears," said Dr. Isaac Goldstein, Coordinator of WCS's Andean Bear Program. "The results of the survey will help us to understand the needs of this species and how to manage Andean bears in this location."

With a range stretching from Venezuela to Bolivia, the Andean bear inhabits the mist-shrouded montane forests and upland grasslands of the Andes Mountains and is South America's only native bear species. The Andean bear is sometimes called the spectacled bear due to yellowish or

white patches that surround its eyes. The species features prominently in the cultural fabric of the region, yet much is still unknown about the behavior and ecology of the Andean bear.

The survey results also show that the Andean bears of Machu Picchu are not an isolated population, but part of a much larger population connected by montane grasslands that occur over an elevation of 3,400 meters (more than 11,000 feet above sea level). Understanding this connectivity will help wildlife managers to maintain the corridors needed for healthy bear populations. The survey itself is part of a larger effort by SERNANP and its partners to monitor Andean bears across the Machupicchu-Choquequirao Landscape, a large mountainous region containing both archeological sites and natural areas.

Fieldwork to collect data on the presence of Andean bears in the Historic Sanctuary of Machu Picchu was conducted between August 2014 and September 2015. A team of more than 30 trained researchers and park officials looked for signs of bears in a variety of habitats in the Machu Picchu protected area, ranging from Andean rainforest to montane grasslands. The study area was divided into sections 16 square kilometers in size (more than 6 square miles, the typical size of a female Andean bear's range) to evaluate the bear's presence in the protected area. Researchers looked for bear activity such as scat, footprints, and signs of feeding on terrestrial bromeliads (plants native to tropical and subtropical regions) along 166 kilometers (more than 100 miles) of transects throughout the sanctuary.



A team of more than 30 trained researchers and park officials participated in recent year-long survey for Andean bears in the sanctuary by looking for signs of bears in a variety of habitats in the protected area, ranging from Andean rainforest to montane grasslands. Credit: Diego Pérez/WCS Peru.

In addition to finding signs of bears in most of the sanctuary, the research team also determined that the presence of cattle is a potential risk to Andean [bears](#) in the sanctuary. The survey results will help inform the effective management of the Historic Sanctuary of Machu Picchu, the most visited protected area in Peru.

WCS has contributed to extensive research on the ecological needs of the Andean bear throughout its range. In 2014, WCS published the document "Andean Bear Priority Conservation Units in Bolivia and

Peru" that consolidated information from 25 Andean bear experts on the distribution of the species and recommendations for conservation. In the U.S., WCS's Queens Zoo is home to the only Andean bear exhibit in New York City. Queens Zoo Director and Curator Scott Silver serves as Coordinator for the Andean Bear Species Survival Plan (SSP), a cooperative breeding program administered by the Association of Zoos and Aquariums that ensures genetic variability within accredited zoo populations.

Provided by Wildlife Conservation Society

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