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## 2009 REPORT ON WILDLIFE FRIENDLY MONITORING AND VERIFICATION PROJECT, ECUADOR

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Figure 1. Individually identified Andean bears (*Tremarctos ornatus*) photo-captured on the private property of All Things Alpaca Ecuador, a Certified Wildlife Friendly producer of alpaca fiber, and on Colepato community land, a participant in the Payment for Protection of Ecosystem Services program of Selec Hidropaute and Fundacion Cordillera Tropical.

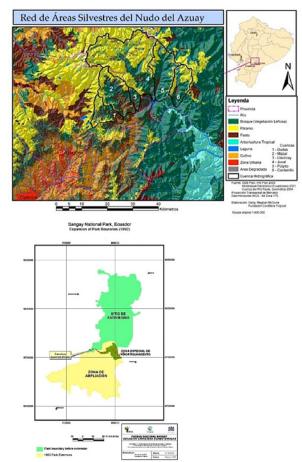


Figure 2. The project site (Nudo del Azuay NdA) in south-central Ecuador (upper left and right). NdA is situated in the southern sector of Sangay National Park (lower), which was extended over private, titled lands in 1992.

**Overview**: Rewards for food and fiber production that protects biodiversity demand that one connect environmentally sensitive consumers to producers who collect and manufacture without harm to habitats and wildlife.

### Goals of our project:

- 1. Verify conservation of threatened wildlife on lands claiming to produce wildlife-friendly food and fiber.
- 2. Investigate methods for monitoring that can become producer-based, cost-effective, and credible to scientists and consumers.
- 3. Analyze strategic trade-offs between consumer confidence in Certified Wildlife Friendly and producer incentives to join and maintain the eco-label.

**Background:** We investigated the IUCN red-listed (2008) Andean bear (Figure 1) in south-central Ecuador (Figure 2) on two private properties totaling >30 km<sup>2</sup>. The property owners are both participants in 1–2 programs paying for the protection of ecosystem services (PPES). We began work in the summer

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of 2007 with a landowner workshop (Phase 1), and conducted Phases 2 and 3 of fieldwork in the summers of 2008 and 2009. Phase 4 fieldwork and training programs begin January 2010.

### **Summary of activities and outputs**

Phase 1 outputs: 57 landowners attended our workshop entitled "Bears, Pumas and Foxes: What Separates Us, What Unites Us?" Workshop Report ("Osos, Pumas, Raposos: Qué Nos Separa, Que Nos Une?") held in Zhoray, Ecuador, July 15th, 2007. We found widespread willingness to consider conservation of the Andean bear and seven landowners volunteered their properties for further implementation of our programs.

Phase 2 and 3 outputs: Over two field seasons (July–December 2008 and June–August 2009), the Carnivore Coexistence Lab of the Nelson Institute for Environmental Studies conducted surveys for Andean bears on the properties of All Things Alpaca Ecuador and Colepato. We found at least 5 different individual bears living on an 18-km² study area composed of cloud forest, native paramo grasslands, and agricultural/pasture lands. We also found at least two of those individuals had survived from phase 2 to phase 3, demonstrating that the Certified Wildlife Friendly property of All Things Alpaca had indeed provided protection for individual Andean bears. Data analysis and interpretation are still underway and we are preparing to disseminate our findings in two U.S. conferences and peer-reviewed scientific journals.

Phase 4 plans: With funding from the U.S. Fish and Wildlife Service, Nelson Institute, and Fundacion Cordillera Tropical, our team will begin to train community para-biologists as park guards in the NdA study area (Figure 2). We will train them to monitor wildlife, particularly the Andean bear, in pairs around 320-km² of participating properties in the PPES programs, aimed at verifying wildlife conservation. We will also conduct workshops with participating landowners to promote and explain the use of non-lethal deterrents to protect property from damage by wildlife, in hopes of averting lethal retaliation against wildlife. Finally our team will continue intensive surveys in our 18-km² study area to calibrate and validate the community para-biologists' surveys.

### **Progress toward our goals:**

- 1. Verify conservation of threatened wildlife on lands claiming to produce wildlife-friendly food and fiber. Completed successfully by demonstrating the survival of known individual Andean bears over a period of 7–13 months.
- 2. Investigate methods for monitoring that can become producer-based, cost-effective, and credible to scientists and consumers. *In progress. We know how much scientific monitoring costs now and the next phase will demonstrate the costs of community-based monitoring in this landscape.*
- 3. Analyze strategic trade-offs between consumer confidence in Certified Wildlife Friendly and producer incentives to join and maintain the eco-label. *Completed successfully. See Appendix 1 and Treves & Jones 2009 in Frontiers in Ecology and the Environment. doi:10.1890/080173*