The IUCN Red List of Threatened Species

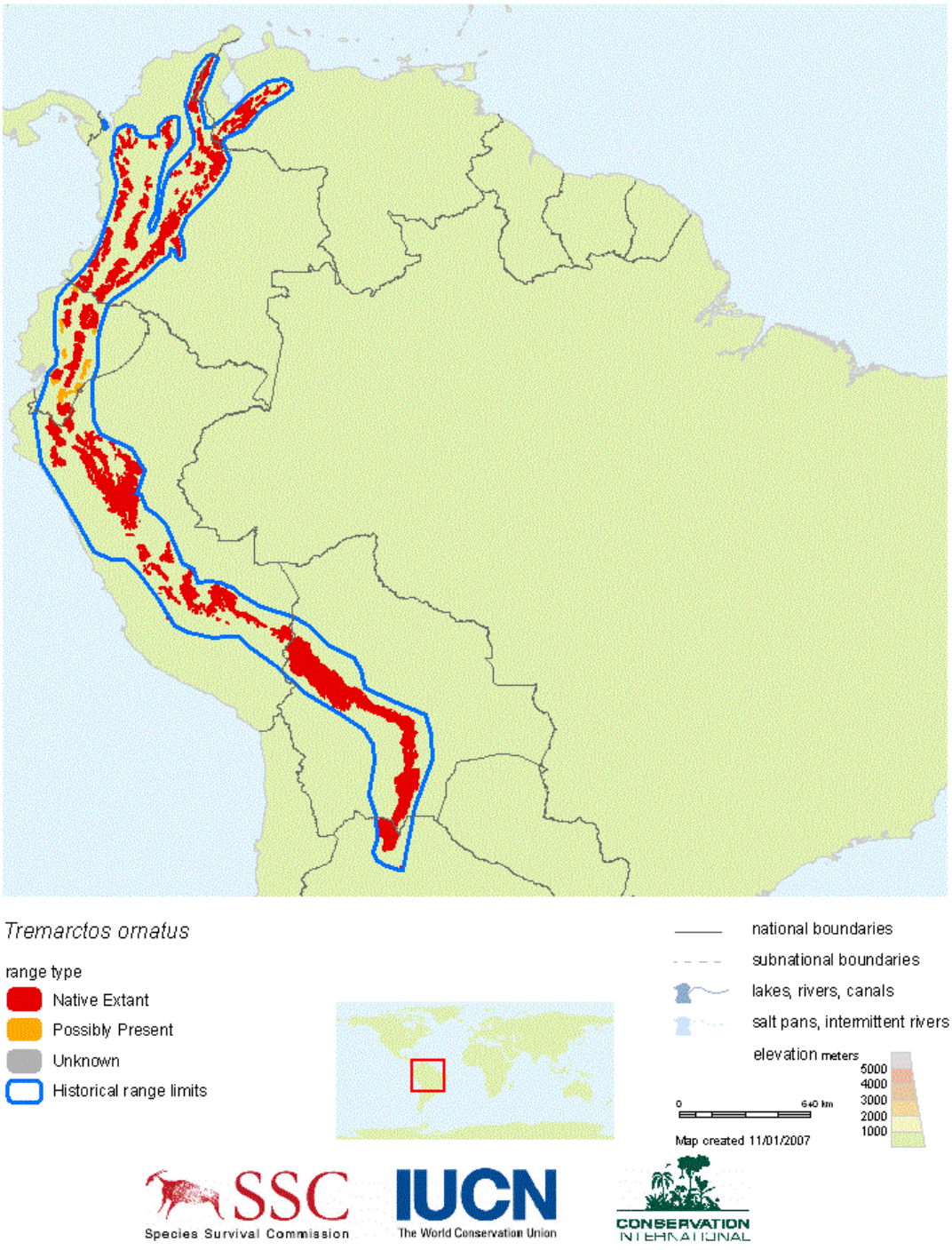
Tremarctos ornatus Andean Bear — Vulnerable

Geographic Range Information

Endemic to the Tropical Andes, the Andean bear is the only extant species of bear in South America. The northern limit of the range is the Darien forest on the border of Panama and Colombia; some uncertain reports indicate its occurrence in Panama. Southward it inhabits the Occidental, Central and Oriental Colombian ranges; the Sierra de Perija, Macizo de El Tama and Cordillera de Merida in Venezuela; both eastern and western slopes of the Ecuadorian Andes; all three Andean ranges of Peru, including a portion of the Pacific coastal desert; the eastern slope of the Andes in Bolivia; and was recently found in the north of Salta Province in Argentina, now the southern limit of its range (Peyton 1999, Del Moral and Bracho 2005). As additional wilderness areas through the Andes continue to be explored, new records on the distribution of the species have been reported (Goldstein 2006, Vargas and Azurduy 2006).

Range Countries

Argentina
Bolivia
Colombia
Ecuador
Panama (possibly present)
Perú
Venezuela



Population Information

In the late 1990s, a range map was produced and an approximate area of occupancy estimated (260,000 km^2). By applying minimum and median density estimates from American black bears (*Ursus americanus*) to this area, Peyton et al. (1998) generated a

rough range-wide population estimate (>20,000 Andean bears). More recent within-country habitat occupancy models and genetic sampling have yielded estimates of 300–2,000 Andean bears in Venezuela, 3,000–7,000 in Colombia, ~2,000 in Ecuador, and ~400 in Argentina. Density estimates of ~5 bears per 100 km² within two protected areas, one in Ecuador and one in Bolivia, were derived from camera trap photos or DNA from hair. However, the reliability of these various estimates, generally based on small sample sizes, has not been verified.

Habitat and Ecology Information

Andean bears occupy a great variety of habitats, from forests to high altitude grasslands, ranging in elevation from 250 to 4,750 m. They are reported to move along an altitudinal gradient among different habitat types, following seasonal patterns of food resources (Peyton 1984, Suarez 1988, Paisley 2001, Cuesta et al. 2003). On the slopes of the eastern Andes, bear populations exist from the snowline down to 300 m in the Tapo-Caparo National Park in Venezuela, 600 m in Ecuador and Peru, and 550 m in Bolivia; on the western slopes of Peru they range down to 250 m (Peyton 1999*a*, Goldstein 2006).

Andean bears are most commonly found in high elevation elfin forests, upper mountain humid forest, and humid grasslands (Peyton 1987*a,b*, Cuesta et al. 2003, Rios-Uzeda et al. 2005). In some areas, however, they are reported to prefer low elevation forests (Rumiz et al. 1999). It remains unclear whether Andean bears can live entirely in high altitude grasslands without access to forested areas (Paisley and Garshelis 2006).

Andean bears are omnivores, feeding on many kinds of fruits, vegetative material, and meat. Common dietary mainstays throughout their distribution are the succulent parts of plants of the families Bromeliaceae and Arecaceae (Peyton 1980, Suarez 1988, Mondolfi 1989). However, food habits change from site to site and even within sites depending on the availability of particular resources. Tree and ground nests are used for resting where Andean bears feed on fruits high in the tree canopy and at sites where bears consume animal (e.g., livestock) carcasses (Goldstein 1991). Activity patterns range from strictly diurnal for wild bears in Bolivia (Paisley and Garshelis 2006) to mixed diurnal and nocturnal for reintroduced bears in Ecuador (Castellanos et al. 2005). As food is available year-round in all parts of their range, Andean bears do not hibernate.

Information on reproduction in this species is limited. Litter size is typically two cubs. The timing of births in the wild has rarely been observed, but in captivity birthing varies with latitude (Garshelis 2004). Presumed mating pairs have been observed in the wild during March-October.

Threat Information

Habitat reduction and fragmentation, poaching, and the lack of knowledge about the distribution and status of the Andean bear are the principal threats to this species (Peyton 1999*a*, Rodriguez et al. 2003). Much of the range of the Andean bear has been

fragmented by human activities, largely resulting from the expansion of the agricultural frontier. In some areas, mining and oil exploitation are becoming a greater menace to Andean bear populations as well as to local communities, due to land expropriation, loss of habitat connectivity, and water and soil contamination (Peyton 1999*a*, Young and Leon 1999).

Many Andean bear populations are isolated in small to medium-sized patches of intact habitat, particularly in the northern part of the range (Yerena et al. 2003, Kattan et al. 2004). The situation tends to be better in the southern range, with some large patches of wilderness still remaining (Peyton 1999*a*).

Poaching is a problem throughout the Andean bear range. Bears are often killed after damaging crops, particularly maize, or after purportedly killing livestock (Goldstein 1991, Peyton 1999*b*, Rumiz and Salazar 1999, Suarez 1999, Castellanos 2002, Morales 2003). Also, Andean bear products are used for medicinal or ritual purposes, and at some localities Andean bear meat is highly prized (Yerena 1999). Live bears are also sometimes captured and sold (Jorgenson and Sandoval-A. 2005). Poaching is a serious threat to the viability of small remnant populations.

Lack of knowledge about the distribution and status is a problem throughout the region. In many areas, information about the status of Andean bears is outdated or, particularly in the southern portion of the range, simply non-existent. The absence of knowledge makes it difficult to develop realistic management plans for the conservation of this species, or to monitor changes in its distribution (reflective of changes in population size).

Conservation Measures

In 1998, Peyton et al. reported that <20% (48,000 km²) of the range was legally protected, including 58 national parks, reserves or sanctuaries. Since then, several of the parks have been enlarged and new ones have been established. However, many of these contain habitats that are not adequate, and others are still too small or isolated to sustain viable bear populations, prompting efforts to develop corridors to link groups of protected areas (Yerena 1999, Yerena et al. 2003, Peyton 1999*a*,*b*, Jorgenson and Sandoval-A. 2005).

Studies on the distribution, frequency and intensity of Andean bear-human conflicts have been carried out in some areas in order to better understand these situations and thereby develop management measures to reduce conflicts and the consequent killing of bears (Goldstein et al. 2006). Management plans to reduce Andean bear-cattle conflicts have been developed at the Oyacachi, Ecuador, based on predation probability models (Goldstein 2006).

Workshops have been conducted in several of the range countries to capacitate researchers and personnel from national parks on survey techniques, development of

habitat models, and general knowledge about the ecology, distribution and status of the species (Goldstein 2006).

Andean bears are listed on Appendix I of CITES and are protected through national legislation in each range country. However, there are loopholes in these laws by which bears can be (and thus frequently are) killed or removed from the wild (Orejuela and Jorgenson 1999, Peyton 1999*b*, Rumiz and Salazar 1999, Suarez 1999, Yerena 1999, Jorgenson and Sandoval-A. 2005).

Red List Assessment

Category: Vulnerable
Criteria: A4cd

Rationale:

It is likely that Andean bear populations will decline by more than 30% within a 30-year window that includes both the past and future. Habitat loss continues at a rate of 2-4% per year, and the level of exploitation is thought to be high in many portions of the range. These threats have not ceased, nor are there any indications that they will diminish in the near future. Even though many protected areas have been established over the past 20 years and more are expected to be added in the next few years, those areas protect only a fraction of the remaining Andean bear habitat. Moreover, even within protected areas, bears are vulnerable to habitat destruction and poaching because many areas are inadequately patrolled. The advance of agriculture is particularly insidious because it diminishes and fragments habitat, and also attracts bears, which are killed when depredating crops. Agriculture combined with increasing mining and oil exploitation pose continued significant threats to this species.

Based just on trends in human population density (and the deterioration of habitat and increased exploitation of animal populations that this inevitably entails), Cardillo et al. (2004) listed Andean bears among the Carnivores that are most likely to move toward extinction. By 2030, they posited that this species would meet the IUCN criteria for endangered.

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Previous Red List Assessment Rationale

Category: Vulnerable
Criteria: A2bc
(Categories and Criteria version 2.3, 1994)

Year Assessed: 1996
Assessor/s: Bear Specialist Group