

Bear Conservation

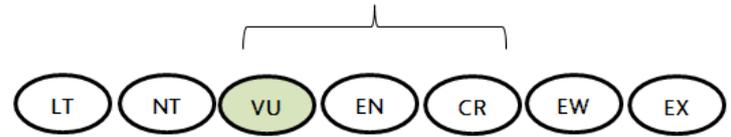
Working for Bears Worldwide



Andean Bear (*Tremarctos ornatus*)



Threatened



Description

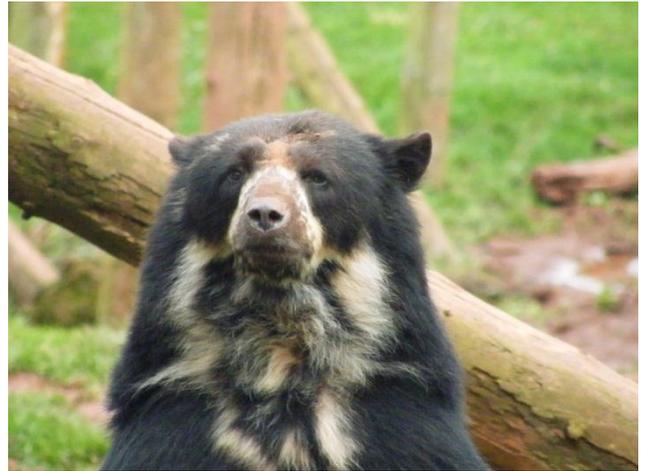
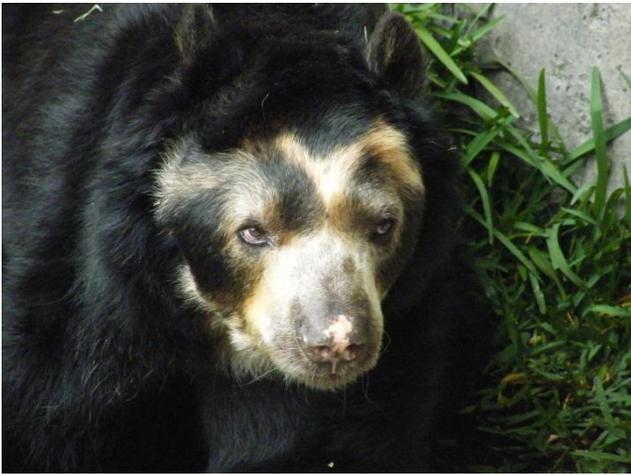
Andean bears are most noted for their colouration and markings, which range from black to brown, with some also having reddish-brown tones. They have a light band, typically white, cream or light yellow, which forms unique patterns to each bear, around their eyes, face and muzzle and often extending down to their chests⁸. Fur is generally long, dense and coarse^{4,7}.

Their size is generally small-medium when compared to other bear species, and they are relatively thickset with short necks, rounded heads and short muzzles and very strong claws. They are also unique in that they have only 13 pairs of ribs; whereas all other species of bear have 14.

They weigh between 60-175kg as adults with average males weighing up to 170kg, and females generally around 85kg. Body length typically measures between 1.12 – 2.22m^{4,7,8}.

Like in most bears sexual dimorphism in the Andean bear is shown with males being significantly bigger (females are around 2/3 the size)^{8,5} and their life expectancy in the wild can reach 20 – 25 years.

They also have various names associated with them such as; Spectacled bear, Achupalla ("tree-bark eater") or ucumari ("bear with eye in hole").



(Above: Profiles showing how Andean bear markings differ. *Taken at South Lakes Wild Animal Park and San Diego Zoo*)

KEY FEATURES

Weight » 60-175kg

Length » 1.12 – 2.22m

Life Expectancy » 20 to 25 years in the wild

Features »

- ✓ Light markings around eyes, muzzle, neck, chest and forehead - unique to each bear
- ✓ 13 pairs of ribs
- ✓ A thickset build

The Andean bear is the last remaining member of the subfamily *Tremarctinae*, better known as the short-faced bears, believed to be descended from the genus *Ursavus*. This subfamily also included the genera *Plionarctos* and *Arctodus* – with the former believed to be the ancestral genus to *Tremarctos*. *Plionarctos edensis* was the earliest

member of the Tremarctinae and lived in North America - what is now present-day Indiana and Tennessee during the Miocene Epoch ten million years ago. The short –faced bears became extinct here towards the end of the Pleistocene era and the Andean bears evolved in South America following its isolation after the last ice age³.



POPULATION HISTORY

The Andean bears spread slowly southwards through Central America into South America. It seems likely that this took place during the penultimate and coldest of the American Pleistocene glaciations, the Illinoian Stage, which lasted from 300,000 to 130,000 years ago. As temperatures slowly warmed the bears would have been able to evolve and adapt to the changing conditions. *Tremarctos ornatus* is still found in a wide range of elevations and accompanying climatic conditions from lowland jungles to mountain cloud forests, from the desert to the snow line³.

By 10,000 years ago these bears are thought to have been present across North America, throughout Central America and down the western side of South America. With the arrival of humans and the subsequent development of agriculture the bears became displaced southwards and by around 500 years ago were confined to the Andes region of South America where their range was already becoming fragmented. In 1999, the Spectacled Bear Specialist Group (SBSG) believed that there were approximately 18,250 individuals remaining in South America³.

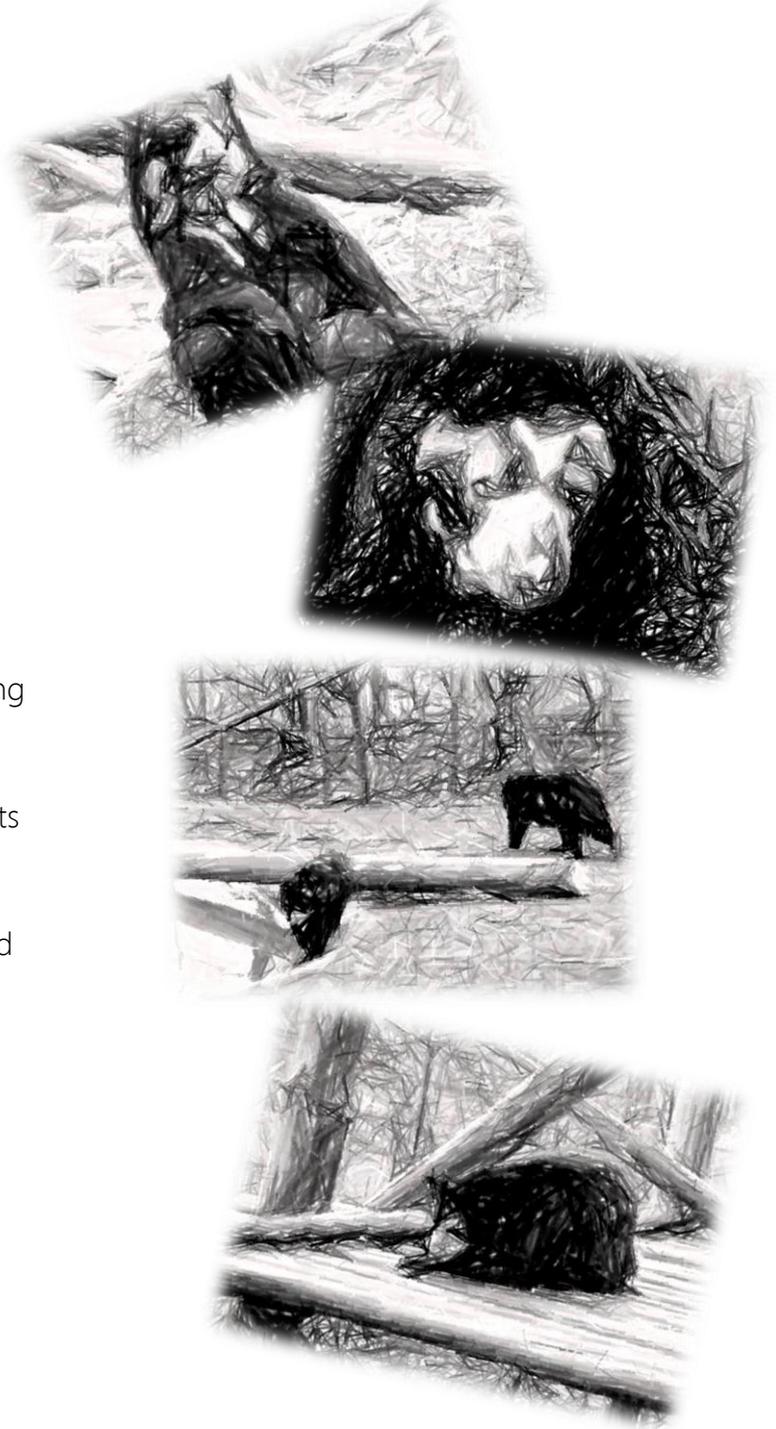
RANGE & DISTRIBUTION



Typically found in small populations, it is believed they inhabit ranges throughout six countries of South America; Venezuela, Colombia, Ecuador, Argentina¹², most predominantly Peru and Bolivia⁸ and potentially Panama⁶.

HABITAT

A very adaptable species, they follow seasonal patterns of food resources living in altitudes ranging from 450 metres to 4000 metres above sea level¹² rainforests and coastal deserts². Females with cubs will often stay in areas with concentrated food sources (most often wetter forest areas) and can provide ample cover for safety.



BEHAVIOUR

Unfortunately, due to their wide dispersal very little is known of Andean bear behaviour¹¹. What we do know is that like all bears they are plantigrade (walks with all four feet on the floor) and they are thought to be more active during the night, particularly dawn and dusk.

They are also one of the best climbers of all the bears, often building themselves 'nests' high up in trees which they use to sleep and eat in. They also build 'nests' at ground level made from various forms of vegetation¹³.

It is believed they are predominantly solitary with cubs staying with their mother until they are around one-two year's old. Farmers, hunters and locals claim to have seen groups of as many as nine bears together, but this is never substantiated⁸. One study in 1980 found a male in a field with two other females and a cub but no conclusions were made as to why¹⁰. They also have a relatively wide range of vocalisations for communication.

DIET

The majority of an Andean bear's diet is made up of plants – most notably grasses, bromeliads and bamboo shoots, thus it is regarded as more of a 'vegetarian' bear. They do however supplement this diet with insects, small mammals and birds making it an omnivore. In times of scarce food supply they will raid crops and eat livestock and domestic animal - which jeopardises local support for conservation efforts.



(Inset a male Andean bear making a 'nest' in captivity. Taken at South Lakes Wild Animal Park)



LIFE CYCLE & REPRODUCTION



The Andean bear is a facultative seasonal breeder and able to delay implantation⁸.

Females typically reach sexual maturity between 4 and 7¹, with females usually having their first born at around 5¹⁴.

Mating normally lasts around 7 seven days, and can happen throughout the year but most commonly between March and October to correspond with the fruiting season^{10, 9, 15}, with cubs born approximately 6 weeks before fruit ripens^{10, 8, 3}.

Like in all bear species, females den to give birth with litter size being dependent on a number of factors, namely; the amount of food available and the health and weight of the mother¹⁰. Generally females will look after cubs for at least one year and up to two years.

THREATS

Spectacled bears are currently threatened by habitat loss and fragmentation caused by the expansion of agriculture, and by poaching. Combined with these is the added risk posed by a lack of knowledge and information regarding the bears' distribution and status throughout its range. In parts of the Andean region mining, oil exploration and road development are increasingly becoming threats.

Whilst significant areas of the habitat of *Tremarctos ornatus* lies within National Parks these are generally under-financed and lack the capacity to manage the habitat and to provide protection for the bears. Historically they have been subject to hunting and poaching for their body parts to be used in medicine. This has resulted in a significant reduction in the richness of the gene-pool and in a number of cases the small populations of bears within fragmented habitat areas are being further weakened by in-breeding.

Undoubtedly the greatest current threat is the loss and fragmentation of habitat caused by the continuing development of agriculture. Trees are felled and land cleared to make way for the farming of both crops and livestock. In addition to losing valuable habitat this significantly affects the range of male bears that become confined to much smaller areas than would naturally be the case. Additionally, bears are persecuted and killed for the destruction of crops and livestock.

WWF has stated that spectacled bear habitat in the mountains between Venezuela and northern Peru has fragmented into at least 113 patches. They also highlight the large market for bear paws and quote prices of between \$10 and \$20 per paw and of \$150 for a spectacled bear's gall bladder. This contrasts with an average wage in Peru of around \$345 (many rural farmers and labourers earn much less than this).

KEY THREATS

- Loss of habitat and its fragmentation (particularly expansion of agriculture)
- Increased development of mining and oil exploitation
- Poaching
- Killing by farmers for damaging crops like maize, or killing livestock
- Hunting and shooting for their meat
- Andean bears are also popular in the illegal trade for their body parts
- Andean bears, especially cubs, are taken to be sold on to trainers, circuses and breeders
- Lack of knowledge and understanding regarding biology, social structures and distribution

Many of the threats are exacerbated, in some instances caused, by the inequity in land occupation and ownership throughout the Andes. The most productive land is in the hands of a few rich owners with the result that the poorest farmers are being forced to move to and develop the hillsides and forested mountain slopes that are the habitat of the spectacled bear. There is no indication that this situation is likely to change in the foreseeable future.

The spectacled bear's situation is worsened by the various conflicts taking place in the Andean region, particularly in Columbia where armed rebellion and drug growing and trafficking

continues. In Columbia peace talks happen sporadically but it seems that there is still a long way to go before there is an end to the conflict.

Given the continuing conflicts and the lack of any hopeful signs with regard to a reduction in rural poverty it is clear that for any conservation measures to be successful they will need to address the rural economy. Only by providing the means for the rural poor to secure a living wage whilst co-existing with or, at best, protecting, the spectacled bear will measures be given a reasonable chance of success.

KEY AREAS

- Habitat protection and restoration
- Working with farmers and government to reduce conflicts with bears
- Reducing rural poverty
- Controlling development in key bear habitat
- Promoting and financing additional research

[The Andean Bear Foundation](#)

Working to secure a future for the Andean bear (*Tremarctos ornatus*) and sustain the beauty and ecological integrity of its natural habitat of montane cloud forest and páramos (high-altitude grasslands) in Ecuador. Through research, education, reintroduction of rescued orphaned bears, and science-based advocacy they are committed to working with local communities to help people and Andean bears live together without conflict.

[Chaparrí Reserve](#)

A 34,412 hectare community-owned and managed private conservation area located in the dry forests of northern Peru. The reserve is one of the best protected dry forest areas and is home to a range of wildlife including as the spectacled bear.

[Spectacled Bear Conservation - Peru \(SBC\)](#)

Working to ensure the conservation of the Spectacled bear in the dry forest habitat of northern Peru through scientific research and education, while working collaboratively with private land owners and rural communities to improve their social and economic well-being through community outreach.

[World Conservation Society](#) - see their spectacled bear page.

[The World Wildlife Fund \(WWF\) spectacled bear appeal](#)

The communities who live in the forests around the new Pasto-Mocoa road recognise the value of this biodiverse habitat, the home of spectacled bears. WWF is campaigning and working to preserve the habitat against the threat of increasing development



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