

FEMALE BEAR WITH THREE SECOND-YEAR CUBS

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FILE 1

The number of bears and where they live

Cantabrian Mountains:

The cantabrian bear population is distributed among the autonomous communities of Asturias, Castilla y León (León and Palencia provinces), Cantabria and in a small area of Galicia (Lugo). Historically, the population declined until the end of the 20th century, but a still ongoing recovery phase started in the mid 1990s.

The Cantabrian bear population is split into two, western and eastern subpopulations. Until the beginning of the 21st century, the bears of each subpopulation were almost completely isolated and there was no genetic interchange, but as the population has increased, so the contact between them has begun to re-establish. The first "hybrid" bears (from a western father and eastern mother) were detected in the eastern subpopulation in 2008, and movements of males between both subpopulations is now quite regular, ending their genetic isolation. In contrast the females tend to be philopatric, with a strong tendency to establish their territories close to where they were born and perhaps because of this, no female bears have been detected naturally crossing the interpopulation corridor. For this reason and given that the connection between both breeding nuclei is currently due to movements only by males, we can consider that the population is still divided in two subpopulations. That said, during the past few years, two female bears found in poor physical condition in the western subpopulation in Asturias were brought back to health in captivity and then released in the eastern nucleus. If they survive and manage to reproduce, they will have added a further step forward in the genetic recovery process of the Cantabrian bear.

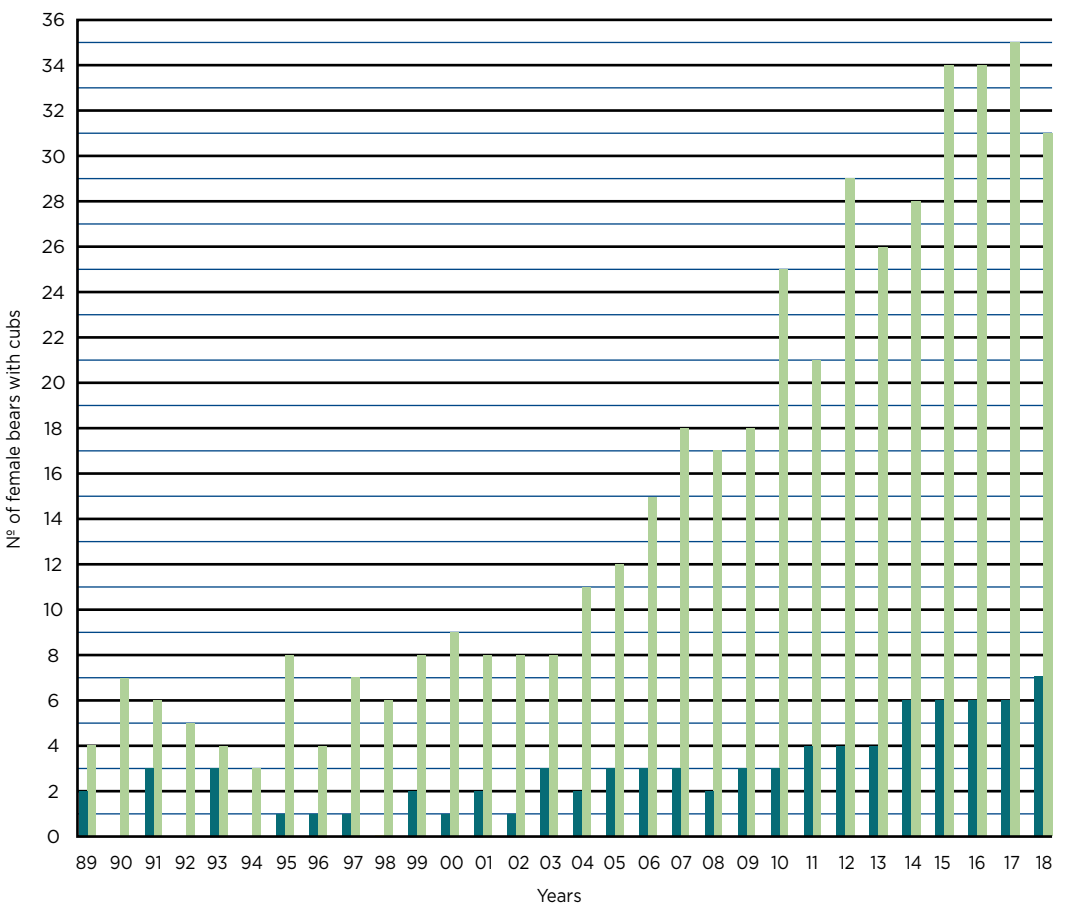
Considering the 10x10 km squares with permanent presence of Cantabrian brown bears, the species is currently estimated as occupying an area covering 16,100 km2, to which all those areas with sporadic bear presence need to be added, and indeed which are increasing all the time.

Traditionally, the population size and trend has been calculated using the number of female bears with cubs of the year detected annually. This standardised and coordinated monitoring has been undertaken annually since 1989, with the data collected by the Brown Bear Foundation (FOP) and the respective autonomous regions, plus additional local help from other collaborators and entities.

The data series of female bears with cubs clearly illustrates the recovery of the Cantabrian population, which over the past 25 years has exhibited an annual growth rate of 10%. In 2017, 41 female bears (35 in the eastern nucleus and six in the western one) with 73 cubs were detected, while in 2018, 38 female bears (31 in the west and seven in the east) with 64 cubs were censused. No results of the censuses of females with cubs from 2019 onwards have been published given that the high number of family groups -above all in the western nucleus- makes it difficult to identify them individually. However, this monitoring continues for the eastern subpopulation.

Over the past few years, the direct censusing of females with cubs has been substituted by population estimates deriving from genetic analysis of excrement and hair and spatially-explicit mark-recapture models. FOP began to explore the viability of using these new techniques to make estimates of the overall Cantabrian population and in collaboration with the various autonomous communities and numerous scientific bodies, made an estimate of the eastern population in 2017 and another of the western subpopulation in 2019, giving a figure of 324 bears. In 2020 the genetic estimate made by the autonomous communities has reached a number of about 370 bears.

Annual number of females bears with cubs of the year in the two subpopulations obtained by direct counts



Western Subpopulation
Eastern Subpopulation

Pyrenees:

The decline of the brown bear in the Pyrenees due to human persecution has been relentless. Canelle, the last fully Pyrenean female brown bear, died in France in November 2004, making the extinction of the original population, which had numbered some 200 bears at the start of the 20th century, inevitable, given that all of the few survivors were males. With the exception of Canelito (the son of Cannelle and the Slovenian male Neré), the bears currently living in the Pyrenes are Slovenian in origin, or their descendants,. Four releases have been made to date: an initial release of two females and a male in France in 1996-1997; a second, also in France, of four females and a male in 2006; an adult male released in the Catalan Pyrenees in 2016; and two females released in 2018 in the French Atlantic Pyrenees.

Distribution and demographic data are provided annually by the Transboundary Monitoring Group for the Bear in the Pyrenees (GSTOP).

Along the length of the Pyrenees these bears cover a vast area of over 7,100 km2.

The Pyrenean population is monitored through the combination of several methods, with the objective of individually identifying the majority of the individuals detected.

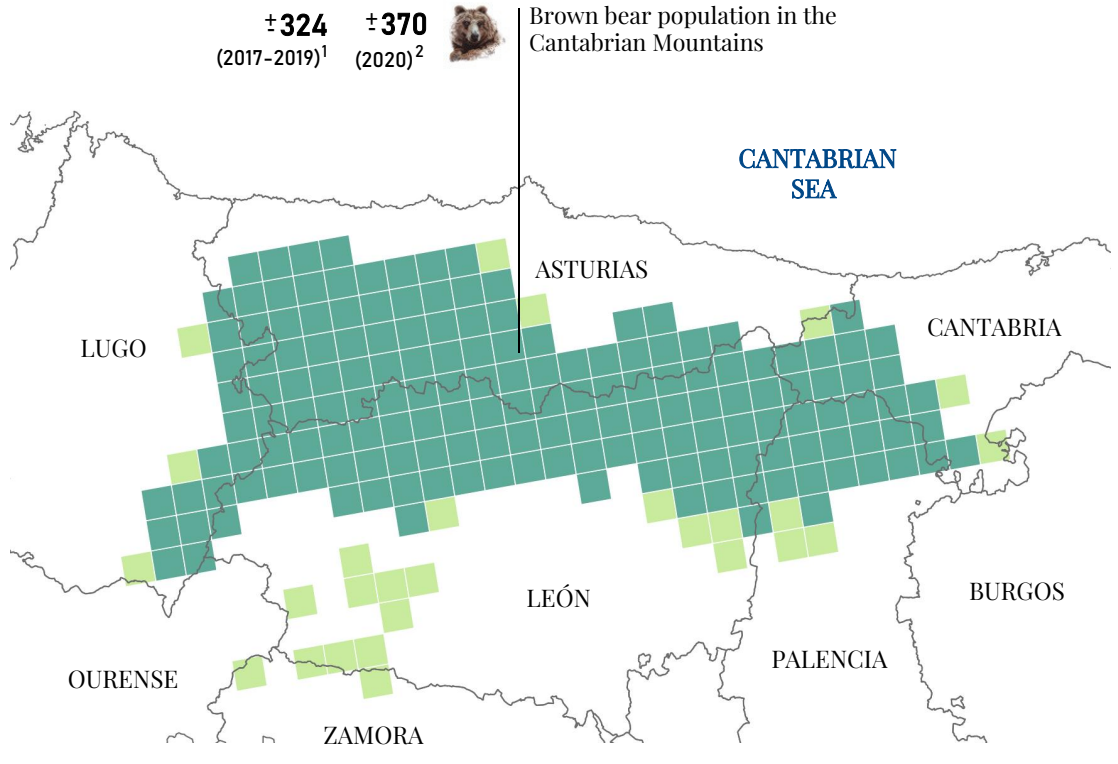
These techniques include undertaking transects and fixed-point watches, searches for tracks and signs, monitoring and study of the attacks on livestock and beehives, automatic camera-trapping and the genetic analysis of hair and excrement samples. Using this combination of techniques, the family groups are detected each year and the total number of bears is estimated, which has shown an increase over the past decade. In 2025, 6 females with 8 cubs of the year were detected and a minimum total estimate of 108 individuals was calculated: 52 males, 54 females and 2 bears of unknown sex.

Chapters I and II of our book, ‘Cantabrian bears. Demographics, coexistence and conservation challenges 2021’, explore both the demographic and methodological aspects of the population monitoring in depth. A digital version of this report can be accessed clicking **here.**



COLLECTING AN EXCREMENT SAMPLE FOR GENETIC STUDY

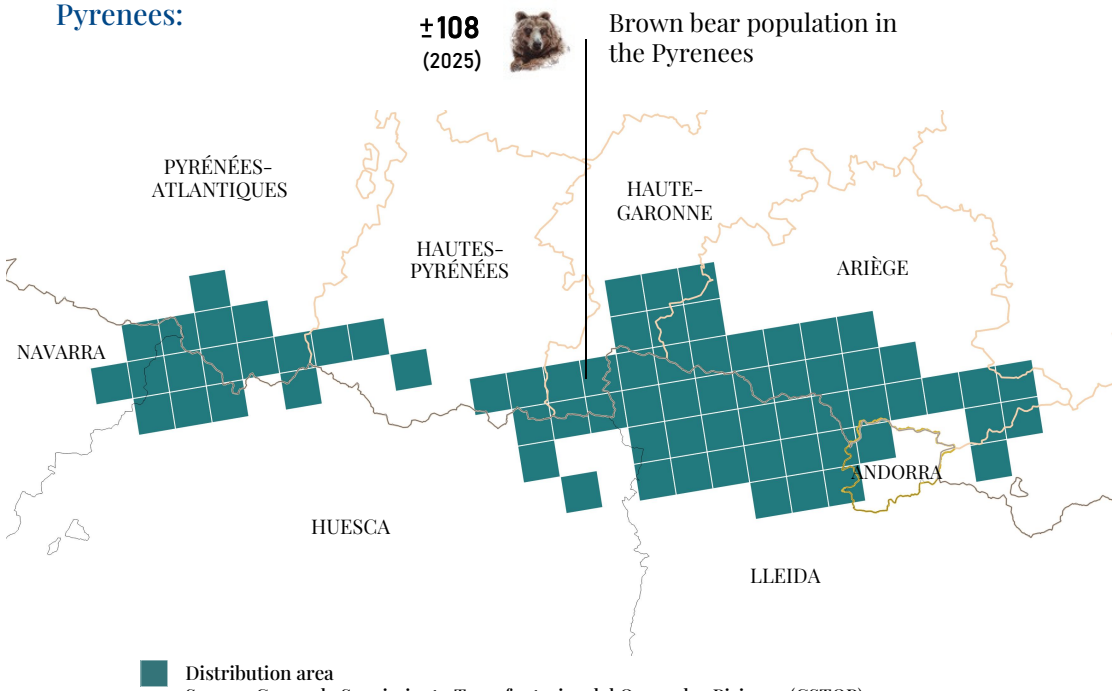
Cantabrian Mountains:



Area of permanent presence
Area of sporadic presence
Source: FOP 2018-2023

1. Genetic estimates Fundación Oso Pardo (FOP)
2. Genetic estimates autonomous communities

Pyrenees:



Distribution area
Source: Grupo de Seguimiento Transfonterizo del Oso en los Pirineos (GSTOP)