

Black bears: Here, gone, and back again

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This image shows black bear cubs in study area. Credit: Jon Beckmann/WCS

A new study from the Wildlife Conservation Society (WCS) and the Nevada Department of Wildlife (NDOW) has pieced together the last 150 years of history for one of the state's most interesting denizens: the black bear.

The study, which looked at everything from historic newspaper articles to more recent scientific studies, indicates that black bears in Nevada were once distributed throughout the state but subsequently vanished in

the early 1900s. Today, the bear population is increasing and rapidly reoccupying its former range due in part to the conservation and management efforts of NDOW and WCS.

Compelled in part by dramatic increases in human/bear conflicts and a 17-fold increase in bear mortalities due to collisions with vehicles reported between the early 1990s and mid- 2000s, WCS and NDOW began a 15-year study of black bears in Nevada that included a review of the animal's little-known history in the state.

Over the course of the study, black bears were captured both in the wild and at the urban interface in response to conflict complaints. The captured animals used in the study (adult [males and females](#) only) were evaluated for multiple physiological indicators including condition, sex, reproductive status, weight, and age, prior to being released. From the information gathered, the [population size](#) in the study area was estimated to be 262 bears (171 males, 91 females). Confirmed sightings and points of capture from 1988 to present were mapped and presented in the report to illustrate current [population demographics](#), and will be used to inform bear management in Nevada.

"It's critical to understand the [population dynamics](#) in a given area in order to make informed decisions regarding management," said WCS Conservation Scientist Jon Beckmann. "This includes decisions on everything from setting harvest limits to habitat management to conservation planning in areas where people will accept occupation by bears. We used this long-term study to determine if reported incidences were due to an increasing or expanding bear population, or people moving to where bears are located. The answer is both."

The study area extended from the Carson Range of the Sierra Nevada eastward to the Virginia Range and Pine Nut Mountains, and from Reno south to Topaz Lake—an area collectively referred to as the Carson

front. Because many captures were in response to conflicts, the urban interfaces of cities and towns of the Lake Tahoe Basin were included.

Nevada's Black Bear History Unraveled

In looking to integrate information on the historical demographics of black bears into their study, the authors found that little published scientific research or data was available and that the species' history in Nevada went largely ignored until 1987— when complaints arising from sightings and road collisions with vehicles began.

Historical records compiled by retired NDOW biologist Robert McQuivey that included old newspaper articles, pioneer journals dating as far back as 1849, and NDOW records that had long been unavailable, were reviewed and confirmed that black bears were present throughout the state until about 1931. At that point, the authors concluded that "the paucity of historical references after 1931 suggest extirpation of black bears from Nevada's interior mountain ranges by this time."

"The historical records paint a very different picture of Nevada's black bear than what we see today. This new perspective is a good indication of what bear management in this state could involve should the population continue to expand," said the study's lead-author Carl Lackey of NDOW.

The authors believe that while over-hunting and conflicts with domestic livestock contributed to the bear's local extinction in the Great Basin, landscape changes due to clear-cutting of forests throughout western and central Nevada during the mining booms of the late 1800s played an important role as well. But as fossil fuels replaced timber as a heat and energy source, forestry and grazing practices evolved, and reforestation and habitat regeneration occurred in parts of the their former range, the bears rebounded.

Using the information gathered in their review of historic documents, the scientists mapped the distribution of [black bears](#) within the interior of Nevada during the 1800s and early 1900s. They recommend that historical range maps for the species in North America be revised to include the information produced as part of the study.

More information: The study, *Bear Historical Ranges: Expansion of an Extirpated Bear Population*, appears in the current online edition of the *Journal of Wildlife Management*.

Provided by Wildlife Conservation Society

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