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Study blames Europe for bison mass killings

Corey Binns
North Americans have always taken the heat for killing off millions of American bison during the early 1800s. A new study, however, pins the blame on Europeans.

Europe's advanced tanning expertise drove the large, iconic mammal to near extinction in the United States, according to a review of international trade records, diaries and other historical documents conducted by University of Calgary environmental economist M. Scott Taylor.

"The story of the buffalo slaughter is surprisingly not, at bottom, an American one," Taylor said.

Theories blame hunters
In the 16th century, North America was home to an estimated 30 million bison, commonly called buffalo. By 1889, Wildlife Conservation Society General Director William T. Hornaday counted only 1,091 surviving bison. Although the elimination of the first half of the bison population took more than 100 years, the second half was killed in just 10 years, beginning in 1870.

The population has since rebounded somewhat, thanks to a 1905 initiative by the American Bison Society to introduce captively bred individuals whose descendents now number about 350,000.

The cause of the bison's rapid downfall has many theories, most of which blame hunters, with support from the U.S. Army, for destroying Native American livelihoods and making room for the railroads. In addition, cattle ranchers are said to have forced bison into smaller habitats.

Previous controversial studies have even pointed the finger at Native Americans. In the journal World Archaeology last year, University of Calgary archaeologist Dale Walde noted a marked increase in the size and frequency of bison kills by Native Americans beginning about 2,000 years ago.

He proposed that the Canadian Plains First Nations organized into large groups prior to the arrival of settlers and changed their bison hunting strategies. Temple University historian Andrew C. Isenberg suggests these practices — corralling herds into chutes and driving them over cliffs — were the beginning of the end for bison. The Blackfeet Indian tribe called the "buffalo jumps" pishkuns, which loosely translates as "deep blood kettle."

Role of tanning industry
Taylor says the guilty party sat on the other side of the Atlantic Ocean. The swift bison extermination was a result of an expertise in tanning heavy hides into leather developed in Europe, he wrote in a working paper for the National Bureau of Economic Research earlier this year. The innovation, not practiced in the United States at the time, sustained European's high demand for bison hides.

"These market forces overwhelmed the ability of a young and still expanding nation, just out of a bloody civil war, to carefully steward its natural resources," Taylor said.

About 6 million bison hides were exported from 1871 to 1883, Taylor wrote. This represents almost 9 million dead bison.

The ecological importance of roaming bison is undeniable. Grasslands depend upon heavy grazing; bison hooves trampling the ground till the soil and guard against erosion and moisture loss. Prairie dogs rely on bison to trim prairie grasses to just the right height for a colony to make its home. Even bison droppings fertilize the soil, compost plant material and efficiently spread seeds.
The dramatic loss of so many of these animals is one example of how international trade can eliminate resources before a government has time to recognize the value of their natural resources, Taylor said.

"This is a case study where the market moved quickly; governments, if they were going to move, moved slowly; and the outcome was a spectacular slaughter," Taylor told LiveScience.

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