

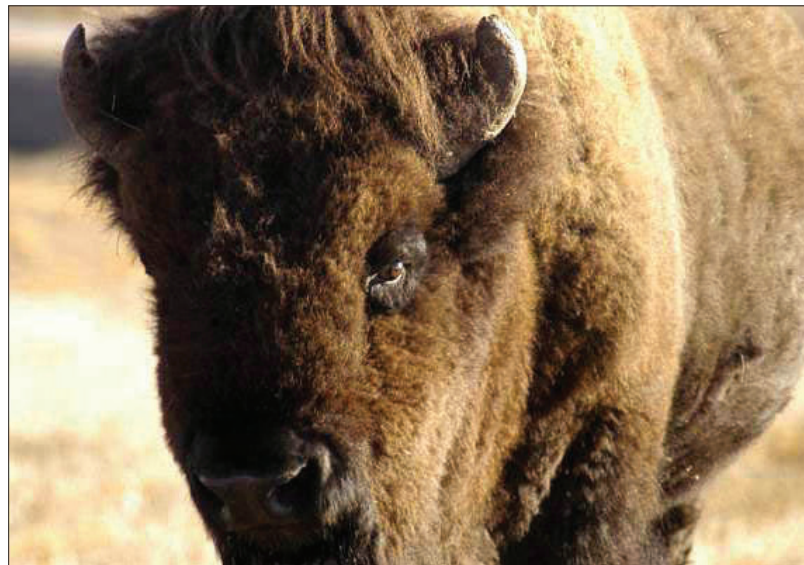
40% listed as vulnerable. WCS scientists are exploring the ecological relationship between optimal bison grazing, vegetation structure, and grassland habitat for birds and other species, working with managers in four states and in Canada. By using bison as a 'restoration engineer,' WCS is creating guidelines for bison and cattle that will enhance grassland biodiversity over approximately 400,000 acres of public and private land.

PROMOTE PUBLIC AWARENESS

ABS launched a national (U.S.) survey in 2007 to obtain data on public knowledge and attitudes regarding bison. It turns out that a majority (77%) think of bison as a symbol of western American heritage, and would be concerned if they disappeared from the landscape. Building on this growing interest and concern, ABS works with agencies and NGOs to frame how bison can be ecologically restored. With partners, ABS convenes bi-ennial international conferences on bison ecological restoration and has held several workshops to build bridges across stakeholder groups and advance understanding and inspiration for bison restoration.



Above: Bison males engaging in natural mate selection behavior. Below: Bison in Wind Cave National Park, South Dakota.



© J. GROSS

© K. REDFORD

The **Wildlife Conservation Society** saves wildlife and wild places through careful science, global conservation, education, and the management of the world's largest system of urban wildlife parks, led by the flagship Bronx Zoo. Today, WCS is at work in more than 60 nations around the world. The more than 4 million visitors who annually experience our Zoos and Aquarium are encouraged to learn about our natural world, and are inspired to care about its future. Among the Zoo's most comprehensive exhibits are the 20 bison, some of which are related to the animals originally restored to the west by the ABS in the early 20th century.

Bozeman, MT: Keith Aune, Senior Conservationist and IUCN American Bison Specialist Group Chair, WCS, 301 North Willson Avenue, Bozeman, Montana 59715. E-mail: kaune@wcs.org

Bronx, NY: Kent Redford, VP for Conservation Strategy, WCS, 2300 Southern Boulevard, Bronx, New York 10460. E-mail: kredford@wcs.org

Washington, D.C.: Kelly Aylward, WCS, 444 North Capitol Street, NW, Suite 397 Washington, DC 20001. E-mail: kaylward@wcs.org



PRINTED ON RECYCLED PAPER



AMERICAN BISON SOCIETY

Ecologically Restoring Bison



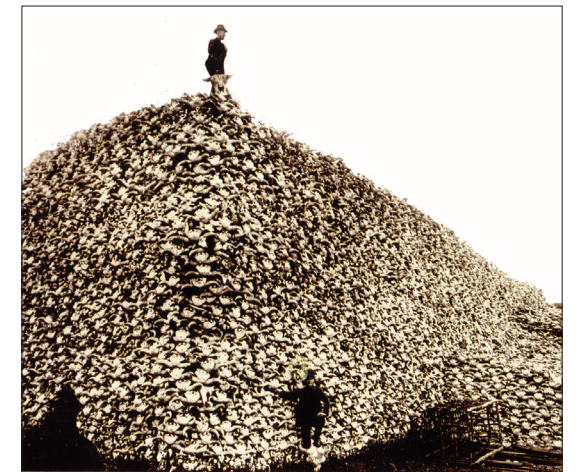
Bison drink from a stream in Grand Teton National Park.

© S. ZACK

Two hundred years ago, approximately 40 million bison roamed the grasslands and shrub steppes of the American West. Moving in large herds across the prairies, bison were a key ecological driver of grasslands: their grazing patterns influenced grasses; nutrient cycling; natural fire regimes; and prairie habitat for birds, insects, and small mammals. Bison, our largest land mammal, were part of this continent's natural and cultural heritage, but by 1900, the species was hunted close to extinction.

The Wildlife Conservation Society (WCS) has a legacy with bison: In 1889, William Hornaday, WCS' first director, conducted a survey that revealed the imminent loss of bison—only 1,091 remained. Hornaday, Theodore Roosevelt, and other pioneering conservationists formed the American Bison Society (ABS) in 1905 and launched a national campaign to create wild bison reserves. ABS helped reintroduce bison to Wichita Mountains National Wildlife Refuge, Oklahoma, in 1907 and to Wind Cave National Park, South Dakota in 1913.

Photos at right (top): Mound of bison skulls, circa mid-1870s. (Bottom): The American Bison Society works with a broad range of partners to establish the scientific and social bases to achieve ecological restoration of bison in North America.



© J. MAHER



Bison with calf.

© S. ZACK

Today, bison are absent from most of their former range, and in terms of ecological function, they are losing ground. In fact, the loss of truly free-ranging bison and the captive management of over 95% of today's bison for production render the bison close to ecologically extinct. Experts estimate that only approximately 7,000 plains bison are fulfilling their ecological role in the American grasslands. Further, most herds are not large enough (greater than 400 animals) to sustain genetic integrity.

In 2005, the American Bison Society was reestablished to work with stakeholders to build the social and scientific foundations for the ecological restoration of bison. The ABS Council includes NGO, tribe, agency, and producer partners, and is led by a rotating Chair, currently held by WCS. The long-term vision guiding ABS work is that the ecological recovery of bison will occur when multiple, large herds of plains and wood bison (a northern sub-species) move freely across extensive landscapes within their historical ranges, interacting with native species

and systems, again inspiring and sustaining human cultures. ABS and partners launched ten projects to 1) develop tools, techniques and information to further understanding of bison restoration; 2) build communities of practice around restoration efforts; and, 3) strengthen outreach, education, and policy for restoration. Project reports and conference proceedings can be found at wcsnorthamerica.org and americanbisonsocietyonline.org.

ABS works to restore bison at a continental scale. We have supported Alaska Department of Fish & Game efforts to reintroduce wood bison and supported a bison recovery team to conserve the remaining migratory herd in Mexico.

WCS BISON RESTORATION STRATEGY: 2010-2015

While steering the policy, outreach, and scientific mission of the ABS, WCS has developed on-the-ground goals to serve as demonstrations and models for restoration of large, ecologically functioning herds over multi-jurisdictional landscapes. WCS is working with partners to

restore at least 100 wild bison in 1-2 priority landscapes, while at the same time working with 1-2 existing wild bison herds to expand populations to greater than 1,000 animals. The obstacles confronting bison restoration range from disease issues to political wrangling to the simple fact that bison need large wild grasslands—an ecosystem that is becoming increasingly fragmented. Nonetheless, WCS has launched two innovative partnership projects that will change the course of bison conservation.

GLACIER-WATERTON FRONT: A NATIVE RESTORATION OF /INI

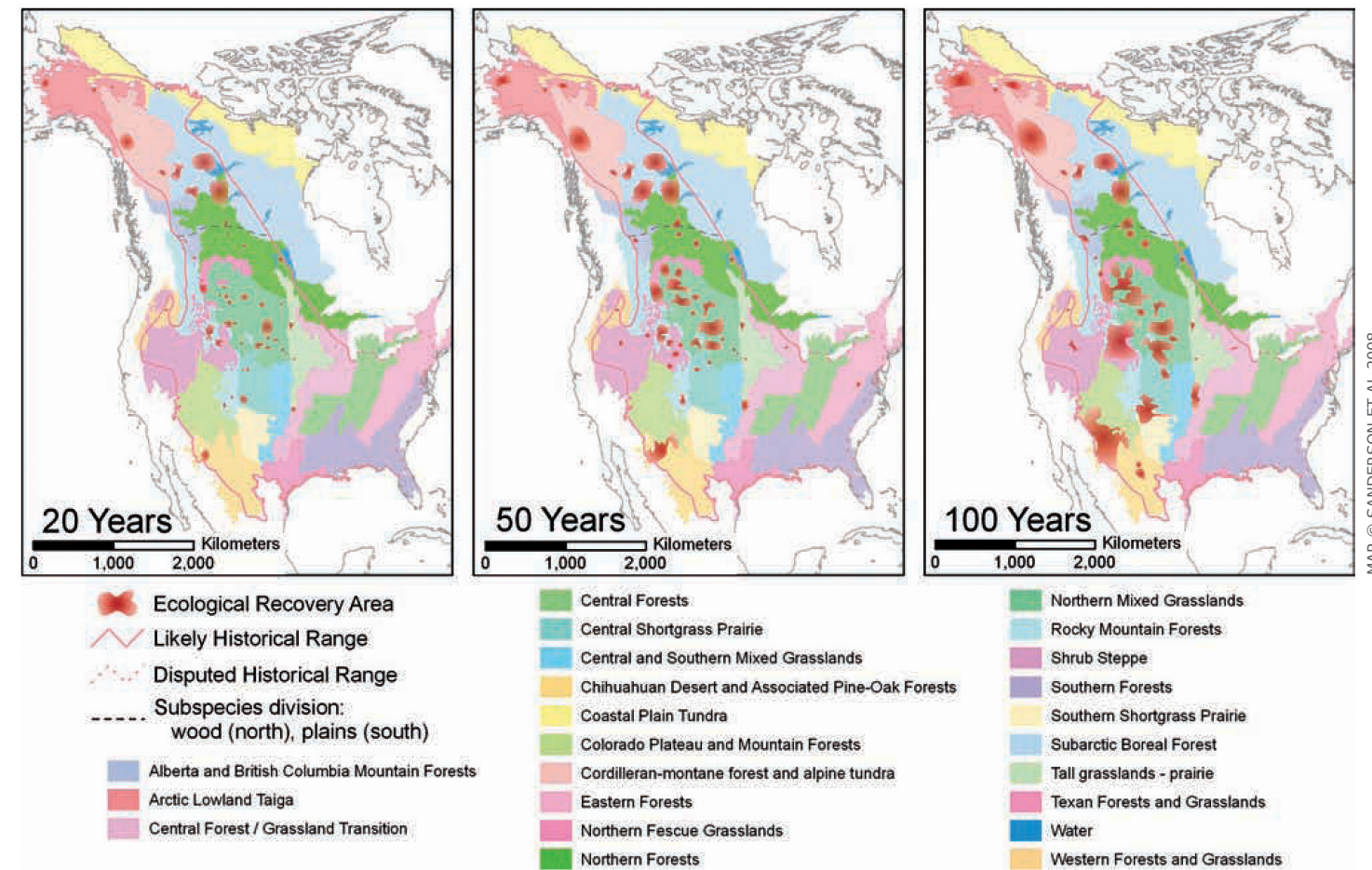
In the majestic Crown of the Continent region, Glacier National Park in the U.S. and Waterton Lakes National Park in Canada anchor a large landscape of prairie, aspen park land, montane,

and freshwater ecosystems. A mosaic of public, tribal, and private lands borders the parks, the majority of which is owned by the Tribes of the Blackfoot Confederacy (Blood Tribe in Alberta and Blackfoot Nation in Montana). WCS has been the only NGO invited to work the Blackfoot and Blood Tribes on large-scale conservation and restoration planning. The innovative Inni (Buffalo) Initiative is born of a spiritual heritage with bison. WCS serves as a technical advisor in this long-term effort to complete the full assemblage of native American wildlife by bringing back wild bison.

GRAZING FOR BIODIVERSITY: HOW HERDS HELP

Because more than 90% of American grasslands have been converted, grassland birds are the most imperiled set of birds in the world with over

RECOVERY POTENTIAL FOR BISON HERDS IN NORTH AMERICA



MAP © SANDERSON ET AL. 2008

Potential recovery zones over the next 100 years based on land-use types, range available, and social and economic feasibility.