

CONSERVING THE PLAINS BISON: AN UNFINISHED CONSERVATION LEGACY

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Within the span of a few decades during the mid- to late-1800s bison (*Bison bison*) were reduced by hunting and other factors to a few hundred individuals. The plight of the plains bison led to one of the first major movements in North America to save an endangered species. Attempts to hybridize cattle and bison when bison numbers were low resulted in extensive cattle gene introgression in bison. Today, though approximately 500,000 plains bison exist in North America, few herds are free of cattle gene introgression. Small herd size, artificial selection, cattle-gene introgression, and other factors threaten the diversity and integrity of the bison genome. In addition, the bison is for all practical purposes ecologically extinct across its former range including Montana, with multiple consequences for grassland biodiversity. Urgent measures are needed to conserve the wild bison genome and to restore the ecological role of bison in grassland ecosystems. Socioeconomic trends in the Great Plains, combined with new information about bison conservation needs and new conservation initiatives by both the public and public sectors, have set the stage for significant progress in bison conservation over the next few years. We outline some of these new initiatives focusing on specific opportunities in Montana.