



Summary of the Proposed Recovery Strategy for

WOOD BISON IN CANADA

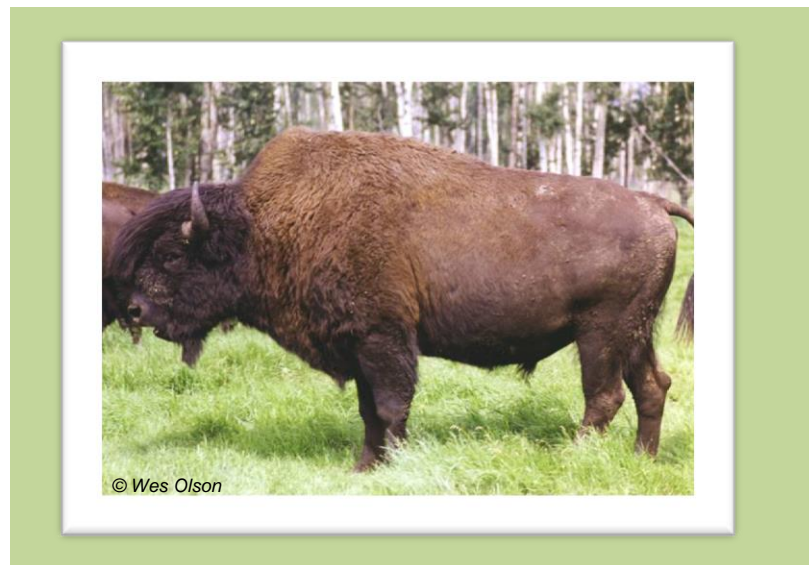
Wood Bison – A Species at Risk

The Wood Bison (*Bison bison athabascaae*) was listed as a threatened species under the *Species at Risk Act* (SARA) in 2003. Originally listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) in 1978 as Endangered, Wood Bison were downlisted by COSEWIC to Threatened in 1988 and further downlisted to Special Concern in November 2013, as population numbers steadily increased with an active recovery program. Their SARA status currently remains Threatened, pending a federal government decision on whether to downlist the species following COSEWIC's recommendation.

What is a Recovery Strategy?

Under SARA, a national recovery strategy must be developed for a Threatened species. Recovery strategies are planning documents that:

- Describe the species and its needs;
- Identify threats to the species and its habitat;
- Set out population and distribution objectives for the species' recovery; and
- Identify a species' critical habitat (the habitat needed for its survival or recovery) or outline a schedule of studies to identify critical habitat.



Description of the Wood Bison

Wood Bison are the largest native terrestrial mammal in North America, with males weighing up to 1000 kg and standing up to 1.82 m tall. They are dark brown, with massive heads, high humps on their shoulders, and long shaggy hair on their shoulders and front legs. The short, black horns curve inward. Horns are thinner and more curved in females. In comparison, Plains Bison (*Bison bison bison*) are slightly smaller and lighter in colour, with chap hair on the front legs, a more distinct cape, more hair on the top of the head, and a shorter and less heavily-haired tail.

Habitat Needs and Present Range

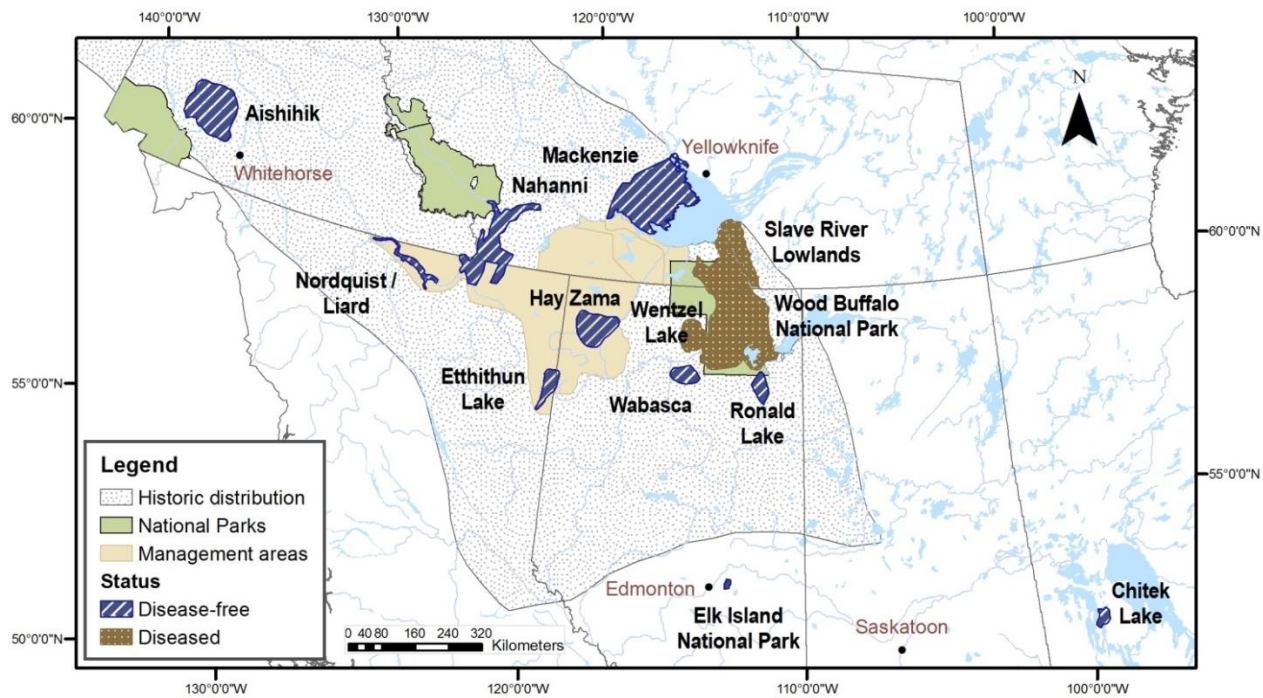
Wood Bison once lived throughout the boreal forest of northwestern North America, but were nearly eliminated in the late 1800s due to overhunting, habitat changes, and severe winters. In 1922, Wood Buffalo National Park was created to protect habitat and prevent extinction of the Wood Bison. Today, there are ~10,000 Wood Bison in Canada in free-ranging herds. The locations of Wood Bison herds are shown below.

Wood Bison are grazers and require grassland and sedge habitat found in meadows. Forested areas adjacent to meadows may be important for resting, rutting, and protection from deep snow and wind during winter conditions.

Disease and Wood Bison

Two bacterial diseases introduced from cattle, bovine tuberculosis and brucellosis, affect several populations of Wood Bison, including those in Wood Buffalo National Park. Affected individuals have reduced numbers of offspring and lower life expectancy, but despite this, the Wood Buffalo National Park population is currently stable. Approximately 4200 free-ranging bison are disease-free.

Anthrax is also a concern for Wood Bison. During outbreaks, infected animals suddenly become ill and die. The infectious anthrax spores are highly resistant and long-lived, persisting in the soils of the meadows preferred by bison.



Locations of Free-Ranging Wood Bison Local Populations in Canada

All free-ranging herds are shown above, coloured according to their current disease status. The stippled region shows the species' distribution over the last 5000 years. Green regions indicate National Parks. Wood Bison control and management areas shown in yellow indicate regions where bison are managed to prevent disease spread and/or hybridization with Plains Bison. Privately-owned commercial herds are not shown as they are not considered within the scope of the Recovery Strategy, nor are they part of the recovery program.

What are the Threats to Wood Bison and Their Habitat?

Many threats directly or indirectly affect local populations of Wood Bison and their habitat, including:

- Diseases introduced from cattle and the control measures taken to prevent their transmission
- Alteration of water and fire regimes
- Hybridization with Plains Bison, cattle, or domestic bison
- Agriculture and rural development
- Forestry, oil and gas development, mining, and mineral exploration
- Loss of genetic diversity
- Road & water traffic
- Climate change

Population & Distribution Objectives

The population and distribution objectives are set at both the short and long term.

Over the short term, the proposed objective is to maintain disease-free status, population size and range of all disease-free populations within their original Canadian distribution. If necessary, population size and/or range should be increased so self-sustaining status can be achieved.

Populations outside the historic range and local populations managed for conservation should be maintained, as these populations can act as important reservoirs to protect Wood Bison and their genetic diversity from catastrophes that may occur within current populations, helping to secure the subspecies in local ecosystems.

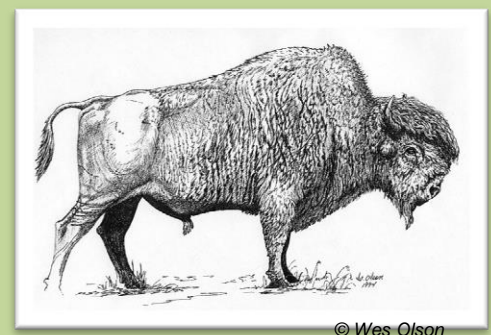
Over the long term, the proposed objective is to ensure the existence of at least five disease-free, genetically diverse, connected, self-sustaining, free-ranging local populations distributed throughout their original Canadian range, with a minimum size for each population of 1000 animals. This long-term objective is meant to build on the short-term objective, not replace it.

These objectives are not achieved until local population levels can sustain traditional harvesting activities by Indigenous Peoples, consistent with existing Aboriginal and Treaty rights of Indigenous Peoples in Canada. Wood Bison harvest by Indigenous Peoples may be supported for local populations of any size, so long as the bison local population remains self-sustaining.

What is Critical Habitat?

Critical habitat is the habitat that is necessary for the survival or recovery of a species. It is identified by describing the area that a species uses, and within that area, the particular environmental features the species needs to live and reproduce.

Insufficient information was available to Environment and Climate Change Canada to identify Wood Bison critical habitat at the time this document was prepared. A schedule of studies to identify critical habitat is outlined in the strategy.



How are we working toward achieving the recovery of Wood Bison in Canada?

5 Broad Strategies are identified to achieve the population and distribution objectives:

- Contain and prevent the spread of bovine tuberculosis and brucellosis between Wood Bison local populations and evaluate current disease management options.
- Maintain at least 90% of the genetic diversity, as measured by allelic diversity, within the Wood Bison subspecies and local recovery populations for the next 200 years.
- Increase potential for connectivity among isolated local free-ranging, disease-free populations, and for population expansion.
- Address and reduce other key threats to Wood Bison and their habitat.
- Increase public awareness and acceptance for Wood Bison

The Recovery Strategy proposes a number of approaches to implement the Broad Strategies listed above. These approaches include, but are not limited to:

- Collaborate with Indigenous Peoples, land owners, land managers, government agencies and other relevant parties to promote, coordinate and implement habitat management and conservation efforts
- Establish a collaborative multi-stakeholder bison disease management planning group to examine options and coordinate activities aimed at eliminating the risk of bovine brucellosis and tuberculosis transmission
- Develop contingency plans for disease and genetic management in case the bovine disease spread
- Identify areas of suitable habitat where reintroduction or population connectivity could occur, and develop and implement plans, with jurisdictional collaboration, for reintroduction, population growth and/or range expansion of Wood Bison into parts of their range where appropriate
- Determine and implement best management practices to achieve conservation of suitable habitat and reduction or elimination of threats
- Identify, evaluate, and implement measures to reduce collisions with vehicles on land and water
- Increase public awareness and involvement in Wood Bison recovery, including communication with local hunters about the safety level of meat, and addressing bison-human conflicts

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You can also visit the following website for more information:
SARA Public Registry (www.sararegistry.gc.ca)

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