



Purple Cloud Bison by Nathalie Parenteau, used with permission

Wood Bison Banter

The latest on Yukon Wood Bison

WINTER 2013/14

Putting the new Wood Bison Management Plan into Action

A new management plan for wood bison was released by Yukon government in August 2012. This resulted from a multi-year process to identify and address a wide range of issues involving the herd. The Management Plan for the Aishihik Wood Bison Herd in Southwestern Yukon provides a broad framework for guiding management decisions while addressing local concerns and interests.

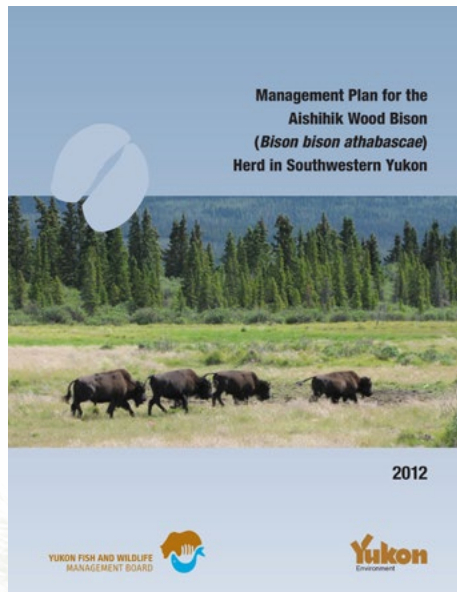
“We’ve learned a lot since we developed the last management plan in the late 1990s,” says Yukon Wood Bison Technical Team Co-Chair Tom Jung. “There were issues that arose since then, so developing the new plan gave us the opportunity to refocus where our efforts should be on bison management.”

The updated management plan has four broad goals:

- Ensure the long-term viability of the herd,
- Provide opportunities for human use and appreciation of wood bison,
- Acknowledge and address conflicts between bison and humans, and
- Address land use and ecosystem considerations on the herd’s range.

The plan calls for a population at or near 1,000 animals post-hunt, with hunting as the main tool for managing both the size and distribution of the herd. The new population target

is designed to ensure the population remains viable over the long term while respecting First Nation



and local concerns about bison numbers overall.

“By allowing for more bison on the land, the plan allows for more harvesting opportunities for Yukoners,” Jung said. “At the established population levels, there is no need for permit hunt lotteries.”

The plan contains 34 tasks that address ongoing challenges such as, ensuring the genetic purity of the herd, protecting the herd from diseases of concern, reducing the risk of bison-vehicle collisions, limiting the range of the herd, and understanding the impacts of wood bison on other species and ecosystems.

“Looking at the work done to date since the plan came out, we’re off

to a really good start on the identified actions,” Jung says. “Most of the issues identified in the plan are already being addressed at some level.”

A key action arising from the plan is developing a harvest strategy. By developing predictive harvest models, the Yukon Wood Bison Technical Team can assess what changes in the harvest may affect the population size during the life of the management plan, under different scenarios. Early harvest models suggest that the percentage of cow bison harvested needs to increase if bison managers are to meet the plan’s population target. Typically, Yukon hunters harvest more bulls than cows.

The Aishihik herd is the only one of the eight free-ranging wood bison populations in Canada with a management plan in place. It is unique in having First Nations and renewable resources councils involved in providing management recommendations. “We’re leading the pack,” Jung noted. “For example, the problem of bison on the highways is an emerging issue for several herds – but our plan deals with it, it describes what we’ve been doing and it has worked. That’s really good news.”

The release of the management plan came shortly after the department announced the new \$10 price for a bison seal, down from \$50. More information about the Aishihik Wood Bison Herd is available from www.env.gov.yk.ca/bison.

Consider harvesting a cow bison this season

Harvest is the primary tool used to manage the population size of the Aishihik wood bison herd. Up until now, more bulls than cows have been harvested, which may impact the population size, structure, and genetics of the herd. Hunters play a key role in correcting this imbalance in the bison population.

By choosing to harvest cow bison, hunters will help ensure the long-term sustainability of this herd. Recent projections suggest that an increased harvest of cows will help to achieve the population size needed to keep the herd at the population target of near 1000 animals.

Select a cow bison for harvest by looking for the following features:

- a smaller horn base,
- a more rectangular head shape, and
- a lower back hump than a male bison.

When you're watching a bison group to decide which animal is the right one for you, consider taking a cow. They are easier to handle when field dressing and transporting and still yield a lot of meat for your freezer.

For more information on how to recognize a cow bison, visit www.env.gov.yk.ca/bison. The newly revised Bison Field Identification video will help you distinguish between bull and cow bison.

You might also consider taking a

bison hunter workshop. Contact Environment Yukon's Hunter Education Coordinator at 667-5617 to find out when a workshop is available.



A cow (left) and bull (right) bison graze side by side. (YG Photo)

Wood Bison Banter

Wood Bison Banter is published once a year by Environment Yukon on behalf of the Yukon Wood Bison Technical Team to highlight current news and rules. It is the reader's responsibility to know and obey the laws for hunting, land use and safety.

If you would like to submit a story or story idea, or have suggestions on ways to improve the newsletter, please contact Kathi Egli at 867-456-6114, 1-800-661-0408 ext. 5652, or kathi.egli@gov.yk.ca. A digital copy of this and past Bison Banters is available at www.env.gov.yk.ca/bison.

The Wood Bison Technical Team identifies and evaluates research involving Yukon's bison herd. It recommends changes to the bison hunt rules from time to time in support of the adaptive management approach used by Environment Yukon. The team members are appointed by the following governments and organizations: Alsek Renewable Resources Council, Carmacks Renewable Resources Council, Laberge Renewable Resources Council, Champagne and Aishihik First Nations, Kluane First Nation, Little Salmon Carmacks First Nation, Environment Yukon, and Environment Canada.

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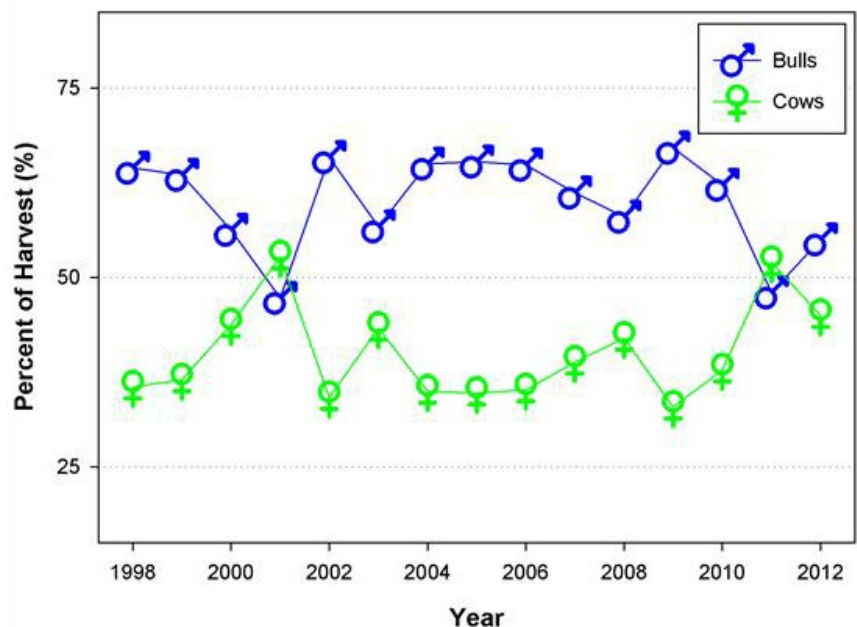
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Harvest trends

In 2012/2013, 162 bison were harvested, up from 134 the previous year. More bison seals were sold this past season as well, perhaps due to the reduced seal fee. As in previous years, a large part of the harvest (47%) occurred in March, which seems to be the preferred month for bison hunting.

Also, as in most previous years, the 2012/13 season saw more bulls harvested than cows. This trend is a concern for bison managers. There is a need to balance cow and bull harvest in order to check population growth and achieve management goals. See the article on harvesting cows for more information.

Wounding loss is still a serious concern for successful management of the Aishihik Wood Bison herd. Based on information collected from kill reports and talking with bison hunters, some harvested bison have been previously wounded.



Bison research update

Researchers from Environment Canada, Environment Yukon and the University of Alberta are working together to examine the potential impact of bison on other species in the Aishihik area.

The management plan for the herd identified the need for research to look at potential impacts of wood bison on other wildlife and on selected vegetation communities. Monitoring of moose and woodland caribou populations in the bison herd's range should also continue, it says.

"We're trying to get at some of the potential competition between bison and other ungulates, such as moose and caribou," says Wood Bison Technical Team Co-Chair Tom Jung, who is involved with the study on how other wildlife might be affected.

"This research is important. The fieldwork on vegetation impacts has been completed and the results will follow."

Researchers are looking closely at

where the bison go and what they eat. "Impact studies are a very challenging type of study, finding out if one species out-compete another," says Jung. "Even if bison are eating the same foods as other ungulates, such as grasses, it doesn't necessarily mean that they are taking away from that group."

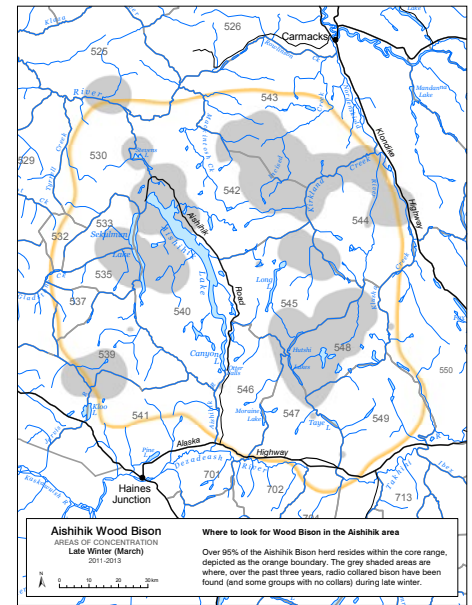
"These studies tend to not lead to nice, firm conclusions but give us a sense of what might be happening, what the potential is. It doesn't necessarily mean that there is an impact."

The management plan recognizes the long-standing concern in local communities about if and how the Aishihik herd may be affecting other wildlife, particularly moose, woodland caribou, and thinhorn sheep. The work is nearly finalized. A technical report on the potential for competition between bison, moose, caribou and sheep will describe this potential and considerations for bison managers.

Revised bison maps

Environment Yukon has refined how we display bison distribution on maps to describe with more detail where hunters are likely to find bison in the key harvesting periods.

There will be three maps available during the season (up from two): early winter (Nov/Dec), mid-winter (mid-Feb-mid Mar) and late winter (mid-March-end of Mar). These maps are meant to assist hunters with their planning. Find them online at www.env.gov.yk.ca/maps.



Bison GPS collars switch to VHF

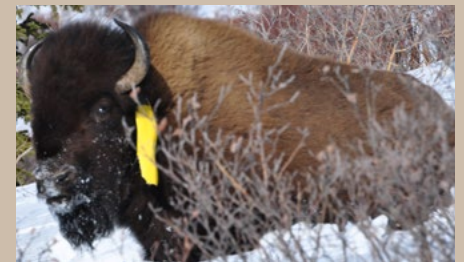
Yukon government biologists keep a minimum of 30 bison collared at any time to help them track herd movement.

Up until now many collars incorporated a GPS in them to collect many locations throughout the collar's life. These detailed data are used to look at range use, habitat selection, and seasonal movements by bison.

GPS collars are more expensive to maintain than more basic VHF (very high frequency) radio collars because they require more frequent replacement and often malfunction. Since biologists now have lots of GPS data on habitat use and movements, they have been switching over to VHF collars only.

The VHF collars cost the same to deploy as GPS collars but are more robust and last for up to five years longer, negating the need to re-collar animals as frequently. The objective of the current VHF collaring program is to provide data on population characteristics (e.g. survival, reproduction, etc.), that can be used to further refine our population and harvest models.

Both GPS and VHF collars look the same and both types of collars have a yellow band on each side so they can be easily spotted by hunters. If you make a mistake and harvest a collared bison, you must immediately contact a Conservation Officer (CO) to report it: 634-2247 (Haines Junction) or 1-800-661-0525 (TIPP). The collar must be given to a CO. The meat of that animal may not yet be safe for human consumption, depending on when the bison was last immobilized. This information can be tracked via the collar, and it may also contain valuable data that needs to be retrieved.



Be on the watch for collars

When hunting, always make sure you check for a collar before taking a shot.

Collars have a sleeve of yellow fire hose slipped over the neckband to make them more visible, however it may still be difficult to see unless you take the time to check.

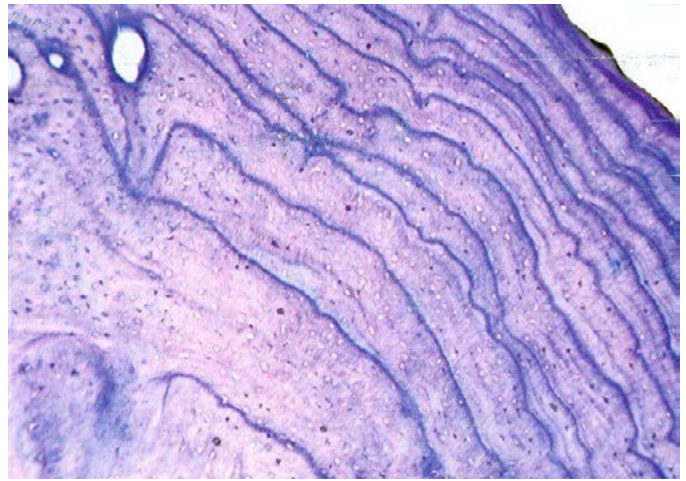
If you mistakenly kill a collared bison, you must care for the meat and report the harvest to a Conservation Officer right away.

Incisor bars tell a big story

What happens to the incisor bars that hunters must bring in to Environment Yukon as a mandatory submission?

First, in order to find out the age of the harvested bison, a front tooth is extracted carefully so it has its root attached. The root is sliced as thin as a hair width, treated and stained to make the growth rings very visible. The cross section is then viewed under a microscope and rings are counted to determine the age of the bison.

The incisor bars are also measured, photographed and DNA is taken in the form of muscle tissue and preserved by freezing or drying it. Please leave a bit of meat on the incisor bar for DNA samples.



Cross section of a tooth root that shows growth rings for each year.



Hunt Wisely brochure updated

The Hunt Wisely: Bison brochure now includes the latest information about firearm requirements, how to avoid wounding loss and meat wastage. There are valuable tips in this brochure for new bison hunters as well as experienced ones.

Pick up the Hunt Wisely: Bison brochure when you buy your license and bison seal, or view it online at www.env.gov.yk.ca/bison. Don't forget to read your permit conditions carefully too!

2012 NWT anthrax outbreak: Yukon bison maintain disease-free status

Last summer's record-breaking outbreak of anthrax in the NWT was a sombre reminder of the importance of the Aishihik herd to the national recovery program. It is estimated that anthrax reduced the size of the Mackenzie herd near Fort Providence, NWT, by about 53% in one summer. Once the largest disease-free population of wood bison, the herd now numbers about 714 animals. In response to such a dramatic decline, harvesting opportunities are suspended.

Maintaining disease-free status is key to the Aishihik Wood Bison Management Plan's goal of ensuring the long-term viability of the herd. To this end Environment Yukon's Animal Health Unit leads the work to test and monitor the herd for diseases of concern, such as anthrax, brucellosis and bovine tuberculosis.

"Currently we don't have any evidence of anthrax in animals or soils in Yukon," says Program Veterinarian Jane Harms. "We would like to do tests in future to look at antibodies to see if bison – or any other species – have been exposed to anthrax in the past."

The *Bacillus anthracis* bacteria responsible for anthrax occur as spores in the soil that grazing animals can inhale. Bison usually

contract the disease by inhaling contaminated soil during vigorous dust baths. Once infected, an animal usually dies within 72 hours. In the NWT, carcasses of bison that have died of anthrax are incinerated at the site to minimize the spread of spores by scavengers and reduce contamination of the soil.

"A huge amount of resources was needed to deal with the NWT outbreak," Harms noted. "It's important for all Yukoners to respect the rules in place to minimize the risk of introducing diseases here as well as to report any unusual behaviour or abnormalities in animals that they harvest."

Soil is the reservoir for anthrax, not animals. "While the bacteria can move around a little as the result of the movement of live animals, it can be people who introduce anthrax into new areas, for example through improperly tanned hides or moving infected carcasses," Harms said.

Anthrax affects many different mammals, including humans, but it does not affect birds. Antibiotics can treat anthrax in humans when used promptly.