

Buffalo – Monarch of the Plains

Nature’s Bountiful Commissary for the Plains

“The Buffalo were meat, drink, shoes, houses, fire vessels...and their master’s whole substance...”

Rawhide...	Signals	Fat...	Blood...	Jerky (Dehydrated)
Containers	Toys	Tallow	Soups	Pemmican (Processed)
Shields	Medication	Soaps	Puddings	Liver...
Buckets	Buckskin...	Hair Grease	Paints	Tanning Agents
Moccasin Soles	Cradles	Cosmetic Aids	Tail...	Stomach Contents...
Drums	Moccasin Tops	Bladder...	Medicine Switch	Medicines
Splints	Winter Robes	Pouches	Fly Brush	Paints
Mortars	Bedding	Medicine Bags	Decorations	Stomach Liner...
Cinches	Shirts	Tendons...	Whips	Water Containers
Ropes	Belts	Sinews-Sewing	Bones...	Cooking Vessels
Sheaths	Leggings	Bowstrings	Fleshing Tools	Paunch Liner...
Saddles	Dresses	Muscles...	Pipes	Wrappings (Meat)
Saddle Blankets	Bags	Glue Preparation	Knives	Buckets
Stirrups	Quivers	Bows	Arrowheads	Collapsible Cups
Bull Boats	Tipi Covers	Thread	Shovels	Basins
Masks	Tipi Liners	Arrow-Ties	Splints	Canteens
“Parfleche”	Bridles	Cinches	Sleds	Scrotum...
Ornaments	Backrests	Chips...	Saddle Trees	Rattles
Lariats	Tapestries	Fuel	War Clubs	Containers
Straps	Sweatlodge Covers	Diaper Powder	Scrapers	Gall...
Caps	Dolls	Hair...	Quirts	Yellow Paints
Quirts	Mittens	Headdresses	Awls	Hind Leg Skin...
Snowshoes	Skull...	Pad Fillers	Paintbrushes	Preshaped Moccasin
Shrouds	Sun Dance	Pillows	Game Dice	Hoofs, Feet &
Beard...	Medicine Prayers	Ropes	Tableware	Dewclaws...
Ornamentations	Other Rituals	Ornaments	Toys	Glue
Horns...	Brain...	Hair Pieces	Jewelry	Rattles
Arrow Points	Hide Preparation	Halters	Meat...	Spoons
Cups	Food	Bracelets	Immediate Use	
Fire Carrier	Teeth...	Medicine Balls	Sausages	
Powderhorn	Ornamentation	Moccasin Lining	Cached Meat	
Spoons	Tongue...	Doll Stuffing		
Ladles	Choice Meat			
Headdresses	Comb (Rough Side)			

“And yet — there was more, much more, to the relation between Indian and Buffalo than all these material considerations.”

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References

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Stories (Further Reading)

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Manon Roy

So is it bison or buffalo? Many of our visitors have asked us this question since their appearance here at Fort Whyte Centre in June of 2000. The truth is, both words refer to the same animal. Bison is the genus (and common) name given to this animal by scientists.

Buffalo is a word that goes way back and has been used to describe almost every type of wild oxen under the sun. North American explorers and early settlers called these animals buffalo because they compared them to the water buffalo in Asia, the Cape Buffalo of Africa and the European buffalo.

At Fort Whyte Centre we use both terms, recognizing the scientific community and honouring our history. But, if we take a look back in time here in Manitoba, we find a treasure box full of names describing the animal that was the foundation of all Plains Aboriginal cultures living here.

Perhaps the most prominent people of the buffalo in Manitoba, and arguably across the North American continent, were the Dakota Nation, speakers of the Siouan language. Their whole lives, from the spiritual to the material, were focused on the bison, whom they called **Tatanka**, which means, “big hoofed animal”.

The Dakota people had a profound respect for the creature that provided them with everything they needed. It offered them materials to make tipis, ropes, clothing, tools and medicine, as well as food, sinew for sewing, bone tools, and many other things. **Tatanka** also played an essential role in many spiritual ceremonies of the Dakota, such as the Sun Dance, also known as **Wiwanyag Wachipi**. This Dakota word explains the Sun Dance as a prayer for life, world renewal, and thanksgiving. Many aspects of the dance are based on the buffalo. Buffalo robes were used in the dances and a bison skull was used as part of the altar arrangement. Twenty-eight poles were used to construct the sacred lodge, symbolizing the number of days in a lunar cycle, and the 28 ribs in a buffalo.

The Plains Ojibwa, or Bungi, also developed a close kinship with the buffalo. Although they came to the prairies later from the eastern woodlands, the Ojibway people who migrated here were well established on the lower Red, Assiniboine, and Souris Rivers by 1800, and were fast becoming a people of the Plains. They adopted many of their new ways and traditions from other, long established prairie tribes such as the Plains Cree, Assiniboin, Dakota and others. The original word for buffalo in Bungi or Plains Ojibwa is **Bizhiki**, or “cow”. Since the introduction of the European cow, however, the original name for buffalo was replaced by **Mashkode-bizhiki**, which means “prairie grass cow”, or **Bashkode-bizhiki**, which translates as “prairie (clearing) cow”.



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Bison Biology

Physical Characteristics

The magnificent bison is the largest land mammal in North America, weighing between 1,400 and 2,200 pounds, close to a metric tonne! Its height ranges between 5 ½ to 6 ½ feet (1.7 to 2.0 metres) at the hump and its total length averages between 9 ½ to 11 ½ feet (3.0 to 3.5 metres), including a tail of about 1 ½ feet (0.5 metres). A bison’s horns may span 3 feet (1 metre) at their widest point. Bison have an excellent sense of smell, which helps them to find drinking water from miles away! Their hearing is also very sharp, but their eyesight is poor.

Eating Habits

Bison took full advantage of the bountiful and biodiverse prairie flora. Their diet consisted of buffalo grass, sedges and twigs from scrubland bushes, all of which grew well and abundantly on the native prairie. Bison have a greater digestive ability than cattle and can break down tough plant cellulose more efficiently. They are ruminants, which means they chew their cud. They regurgitate partially digested food (the cud) and chew on it again. Once swallowed, it travels through all four compartments of their stomach and exits the bison as “buffalo chips”. Dry ‘buffalo chips’ were used as fuel by Aboriginal peoples to keep their fires going. Wood was not easy to come by in the open prairie, and grass combusted within a few seconds.

Reproductive Biology

The mating season typically begins around mid-July and extends to the end of September. During the rut, bulls search for cows and ward off rivals. They challenge each other by staring, shaking their horns, snorting, wallowing, (laying on their side and kicking dirt around to display their size and power), and roaring.

Bison cows have a gestation period of nine and a half months. Cows usually

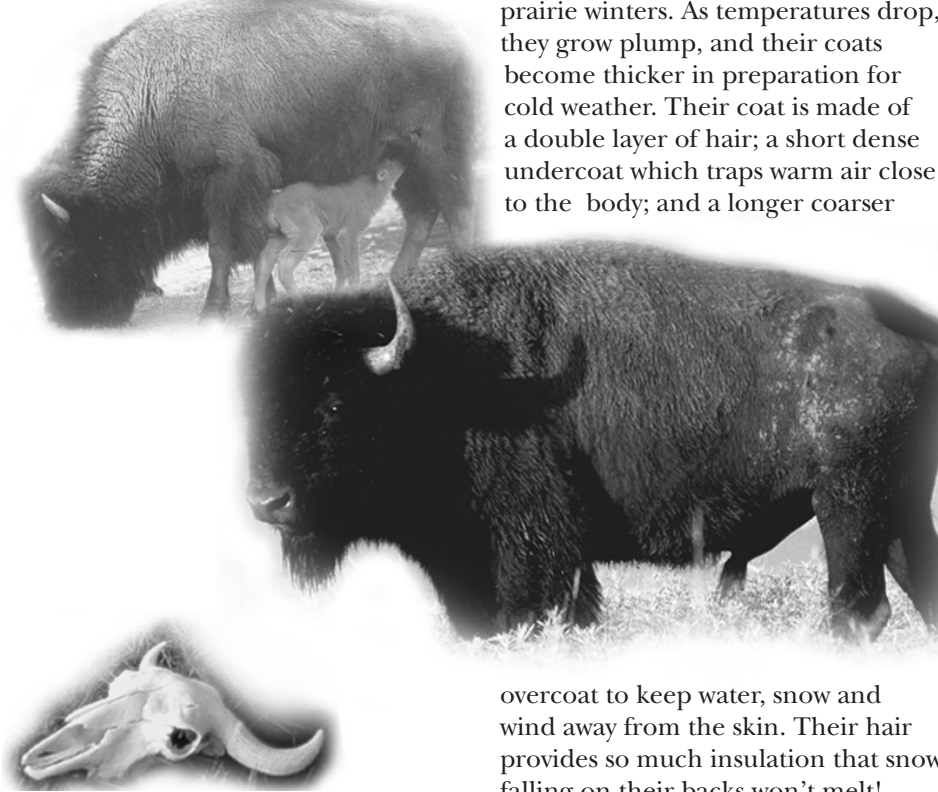
give birth to a single cinnamon-coloured calf that weighs between 33 to 66 pounds (15-30 kg) and begins life without a hump or horns. Both mother and calf get to know each other and can sense each other within the herd. The calf stays with its mother until the following spring.

Behavioural Ecology

Bison are very social animals and travel in groups except during the mating season. Cows form small “maternity” bands with the young calves, mature males form their own groups, and old bulls travel alone if they are healthy and strong.

Bison are nomadic animals. They move in herds, traveling about two miles per day (faster when looking for water). During the summer they migrate to breeding grounds. It is the only time of year they will congregate in large herds.

Bison communicate by staring, making sounds and flicking their tails. Their tail position is a sign of their mood: Relaxed bison – relaxed



tail; Playing – flicks back and forth like flyswatter; Angry or frightened – tail straight up in the air.

Defenses

Since they can’t hide in grasslands, bison’s best defence is to flee. They can run at speeds of up to 35 mph (56 kph!) for 30 minutes, and their slender legs make them agile runners. Just like in the movies, bison will often stampede, running together in a large group when they sense danger. Their head makes for an extraordinary weapon when they charge. It is made of a double layer of bone, 2 inches of skin, and 4-5 inches of fur. The horns, a permanent growth, are hollow and measure 22-26 inches long, typically spanning 2 ½ feet tip to tip. These have been known to throw wolves (one of the bison’s predators) so high that the fall killed them. Many hunters and horses have been gored, not to mention a few imprudent park rangers.

Bison in Winter

Bison are very well adapted to harsh prairie winters. As temperatures drop, they grow plump, and their coats become thicker in preparation for cold weather. Their coat is made of a double layer of hair; a short dense undercoat which traps warm air close to the body; and a longer coarser

overcoat to keep water, snow and wind away from the skin. Their hair provides so much insulation that snow falling on their backs won’t melt!



Their noses are snow ploughs. They swing their head back and forth to clear snow away from the grass. They also use their noses and hooves to break through ice to get water or eat snow. Bison can withstand extreme temperatures; as low as -50°C. During extremely cold weather, bison will often huddle together to share warmth.

Fort Whyte’s Bison Prairie & Rotational Grazing

Fort Whyte Centre’s bison prairie took considerable time, energy and foresight to prepare. This field was seeded with alfalfa and other crops for decades, and therefore had to be modified to accommodate its new “community”. One year prior to the herd’s arrival, the field was seeded with a variety of pasture

grasses. Because our herd of bison live in an enclosure with limited space and resources, we use a feeding system adapted from ranchers, called rotational grazing. Here is how it works: The 70-acre enclosure is divided in two with a solar powered electric fence in the middle. The bison graze one half at a time. This gives the grass a chance to grow back and prevents it from maturing to the point of seeding. The rules change in the winter to account for the dormancy of the land. Hay bales are placed in the bison enclosure as an alternative food source. They will, however, continue to graze on the dead grasses by plowing the snow aside with their broad noses.



continued

Buffalo Trivia...

How much do YOU know about bison?

(The following questions were adapted from *The Educational Trivia Game Of North American Tribes : The Buffalo*, Cheecotanka Enterprises, Las Vegas, 1999.)

- 1) Mature older bulls lead the herds. **True or False?**
- 2) Bison have 2, 5, or 7 times the number of hair follicles as domestic cattle.
- 3) The American Bison is the same animal as the American Buffalo? **True or False?**
- 4) Buffalo can jump a 6 foot fence. **True or False?**
- 5) Prairie Dogs and Buffalo have similar habitats during the spring and summer. **Yes or No.**
- 6) A mature Buffalo bull can weigh as much as: 500 pounds; 1000 pounds; or 2200 pounds?
- 7) The stomach lining of a bison was made into: Footballs; Cooking vessels; or Bath caps?
- 8) Beef Cattle pollute water sources by their wallowing and urine. Bison do not wallow or urinate in water sources. **True or False?**
- 9) The commercial tanning of bison hides began in the: 1600’s; 1700’s; or 1800’s?
- 10) The Brown Cowbird helps the bison by eating insects off their bodies. **True or False?**

Answers:									
1)	False, the older female bison do.	2)	7	3)	True	4)	True	5)	Yes, bison use the mounds for dusting
6)	2200 pounds	7)	Cooking vessels	8)	True	9)	1800’s	10)	True