

American Bison

Colorado Foundation for Agriculture – Ag in the Classroom

by Marlene Groves, Buffalo Groves, Inc.

We know
them as

BUFFALO

What are they?

We call them **buffalo**, but they are really **bison**. Their scientific name is *Bison-bison*. They are North America's largest land mammals.



Where did they come from?

During the Pleistocene Ice Age the ancestors of today's *Bison-bison*, the *Bison-priscus* crossed from Siberia into Alaska. They descended from European Wisent.



How did they evolve?

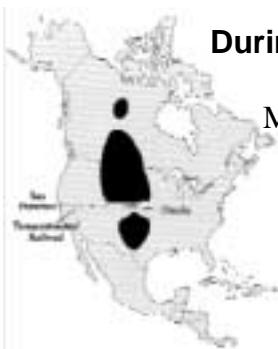
Bison-priscus evolved into *Bison-latifrons* and lived in North America for 300,000 years. 22,000 years ago, *Bison-latifrons* evolved into *Bison-antiquus*. 10,000 years ago *Bison-antiquus* evolved into *Bison-bison*.



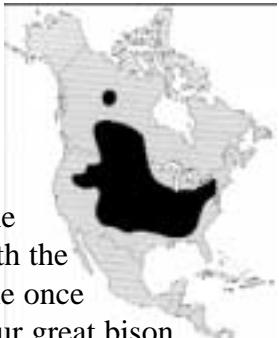
Renderings by Valerius Geist

In the early 1800s there were 30-60 million bison. Endless numbers were described as

blanketing the prairie. Bison ranged America from the East coast through the Rocky Mountains.



During the mid 1800s bison remained only west of the Mississippi River. Along with the shrinking bison range, the once countless numbers of our great bison herds were also shrinking.



By the late 1800s the bison, which had survived the Ice Age, were nearly eliminated by man. The total number of bison which once were from 30-60 million now total just a few hundred.



Endless prairie of buffalo photo (above) courtesy Kansas State Historical Society; Skulls photo (left) courtesy Burton Historical Collection, Detroit Public Library.

TATANKA

Native American's and the buffalo lived in harmony prior to white man's arrival in North America.

They called the buffalo *Tatanka*.

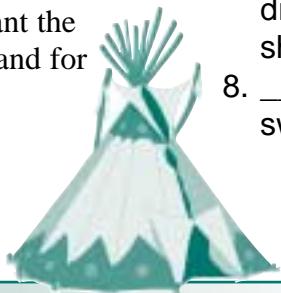
They regarded the buffalo as their brother (their four-legged relative), because it gave them their gifts of life (food, clothes, shelter).

They used all of the buffalo and did not waste anything.

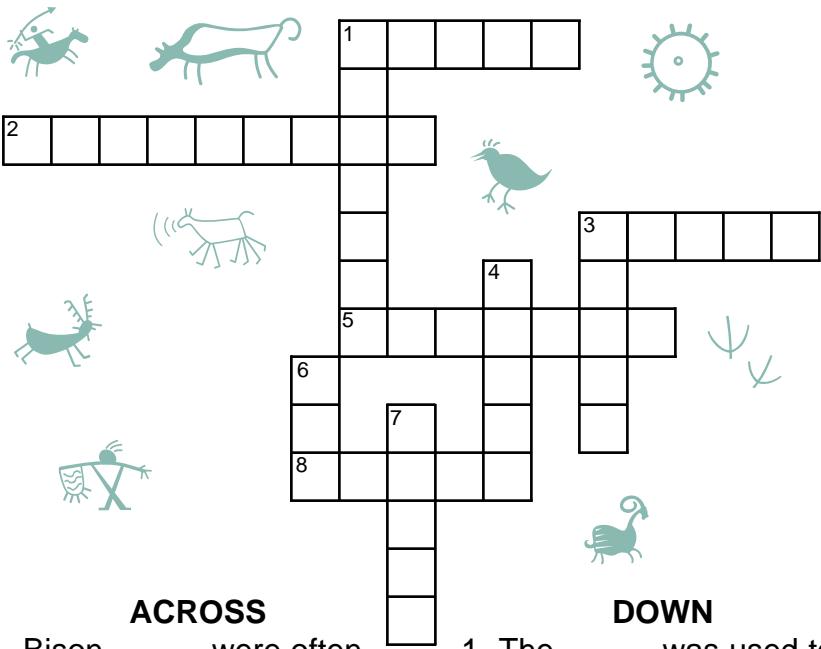
They respected and honored the buffalo because to them, it was sacred (wakan).

They have many ways of celebrating the buffalo and they have legends such as White Buffalo Woman.

It's important to remember that during the mid- to late-1800s as America developed and native Americans were driven onto reservations, the buffalo had to be considered, which meant the killing of many bison by and for our government.



~ OUR BROTHER & OUR WAY OF LIFE



ACROSS

1. Bison _____ were often made into arrowheads, knives and other tools.
2. _____ was a main source of food.
3. _____ had multiple uses as utensils, cups, tools and ornaments.
5. Hide that was made into _____ was used for drums, buckets and shields.
8. _____ were used as fly swatters and ornaments

DOWN

1. The _____ was used to carry water.
3. Bison _____ were made into tepees, clothes, shoes, pouches, etc.
4. Buffalo _____ were used for diaper powder and even fuel.
6. _____ (also referred to as tallow) was used for soaps and cosmetics.
7. _____ was used for bow strings, and sewing thread.



This is a listing of how Native Americans used the buffalo.
It was "the buffalo store."

Meat: food (main source of protein); **Hide:** clothes, shoes, shelter (tepees), blankets, bedding, shields, masks, bags, buckets, pouches, drums, dolls, ropes, cinches, stirrups, saddles;

Horns: spoons, cups, arrow, powder horns, ornaments, ceremonial items, tools, toys;

Hair & Wool: ropes, halters, pillows, pads, head dresses, ornaments, bracelets and balls;

Other: Brains for hide preparation and food; Tongue for combs and food; Beard for ornaments; Teeth for games and ornaments; Tail for fly swatter, brush, decorations and whip;

Chips for diaper powder and fuel; Fat for soaps, oils and cosmetics;

Hoofs for glue, rattles and spoons; Sinew for bow strings and sewing thread;

Bladder, Paunch and Stomach Lining for pouches, bags, buckets and canteens.

MAJESTIC ANIMALS ~

GREAT PLAINS BISON

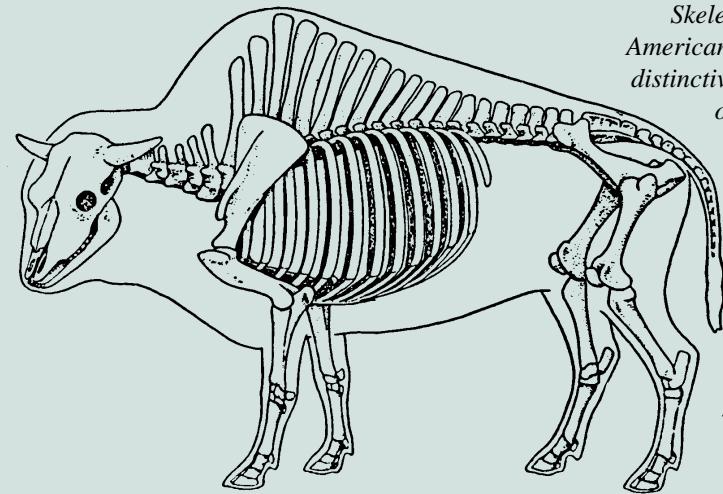
BISON BASICS

- ◆ Bison are mammals (lactating / milk producing animals with a vertebrae)
- ◆ Bison are herbivores (plant / grass eating)
- ◆ Bison are ruminant animals (hoofed and cud chewing)
- ◆ Bison (like cattle) are part of the bovine family
- ◆ Bison live 20-25 years, but some have been known to live nearly 40 years
- ◆ All bison have horns
- ◆ Bison can run 30 to 40 mph and can jump 6 feet
- ◆ Bison are good swimmers
- ◆ They live in a pecking order structure and in family units
- ◆ When upset or angry a bison might stomp their front feet on the ground and/or raise their tail.



BULLS (males)

- ◆ Bulls stand 6 feet at the hump and can weigh up to 2,400 pounds
- ◆ Bulls breed at 2 years, but continue to grow to 5-7 years
- ◆ Bulls will compete and fight for their place and right to breed the cows in their herd
- ◆ After breeding, bulls will go off in bachelor groups



Skeleton structure of the American bison showing the distinctive dorsal vertebrae, or bearing structure for the “hump.”

*from
The American Buffalo,
J. Albert Rorabacher*

FORM and FUNCTION

- ◆ Bison have very large heads, used for plowing the snow to reach the grass below
- ◆ Their dorsal vertebrae supports their large head
- ◆ The wooly and hairy front body protects their body as they can face into the worst of storms



COWS (females)

- ◆ Cows stand 5 feet at the hump and can weigh over 1,000 pounds
- ◆ Cows will breed at age 2 and have their first calf approximately 9 months later
- ◆ Cows are very protective mothers and very maternal, often with several grown daughters (and calves) forming a strong family

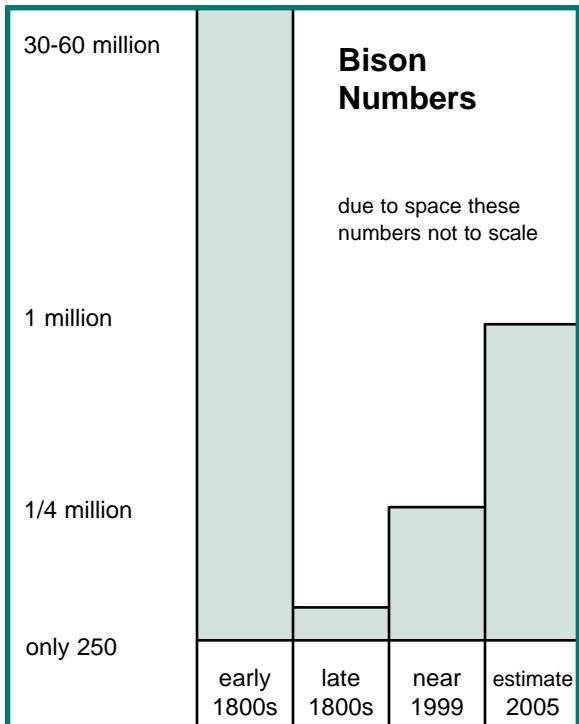


CALVES (babies)

- ◆ Calves are born between 35-50 pounds without a hump and with just horn buttons
- ◆ Calves stand immediately after birth and can soon run as fast as the herd
- ◆ They will nurse until about 9 months old, but will begin to eat grass at 1 month of age
- ◆ Calves play and frolic with other calves

Oh give me a home where the

BUFFALO ROAM



Habitat, Feed & Fencing

- ◆ Bison are grazers, which thrive on native prairie grasses
- ◆ Bison also need minerals
- ◆ Keys to a good bison habitat are adequate food and water, and slightly higher fences
- ◆ Give them room to roam and they'll stay home!



This bison education information is a creation of Marlene Groves, Buffalo Groves, Inc.
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Bison Ranching

- ◆ It's a good alternative agriculture business throughout the U.S.
- ◆ Some ranchers are switching from cattle to bison; while other business savvy folks are entering ag for the first time and choosing to raise bison for their economic value

Handling and Healthcare

- ◆ Bison are not pets nor are they domesticated
- ◆ Do not try to touch or interact with bison or any other wild animals
- ◆ For safety of the bison and the bison handlers, bison handling systems are needed to safely, calmly and quietly work bison
- ◆ Annual healthcare programs for bison will vary ranch by ranch

Advantages to Raising Bison

*Bison live longer than cattle.
Bison calve easier and winter better.
Bison is a growing industry.
Bison meat is nutritious.
Bison by-products sell well.*

Nutritional Comparison

(per 100 grams of cooked lean meat)

	Fat	Calories	Cholesterol
Bison	2.42	143	82
Beef	9.28	211	86
Pork	9.66	212	86
Chicken*7.41	190	89	

USDA Handbook 8-5:8-10;8-13;8-17

*skinless

COOKING TIPS: COOK LOWER AND SLOWER THAN BEEF; COOK TO MEDIUM RARE AND PLEASE DO NOT OVER COOK

Word Search: bison, buffalo, flavor, goodforyou, grassfed, iron, leanmeat, lowfat, omegas, protein, redmeat, tastesgreat, value

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