

Name KEY Bison Science - Research

Osage and the Bison: The Osage probably began hunting buffalo on horseback around the early 1700's. They established many east-west buffalo hunting trails and camps in Kansas and Oklahoma (Burns 61-69). The last Osage bison hunt took place in 1876. It was a failure as there were few bison remaining on the southern plains. This resulted in great suffering and the end of a way of life (Bailey 12).

**The Animal: Research Bison** - at [Bison - Smithsonian National Zoo](#)

SEE tab section - **FACT SHEET:** list **one interesting fact** for each category below:

ANSWERS WILL VARY - HERE IS WEBPAGE SOURCE MATERIAL FROM WHICH ANSWERS ARE TAKEN

1. Physical Description

The largest terrestrial animals in North America, bison are characterized by a hump over the front shoulders and slimmer hindquarters. Both male and female bison have a single set of short, sharply pointed, hollow horns that curve outward and up from the sides of the massive head. The head, neck, forelegs, and front parts of the body have a thick coat of long, dark hair. The adult bull adds to this thick coat with a black beard about one foot long. The rear part of the body is covered with much shorter hair. The shaggy head is the most heavily insulated part of their body, which has adapted as such to withstand blizzards as the animal stands facing into the wind. Heavy coats are shed in the spring as the animals roll to loosen the hair, which falls off in gobs.

2. Size

A mature bull can reach 5.5 to 6.5 feet (1.9 meters) high at the hump and nine to 12.5 feet (2.7 to 3.8 meters) in length. Females are normally smaller, at 7 to 10 feet in length (2.2 to 3.2 meters) and 5 feet high at the hump (1.5 meters). Bison can weigh 1,800 to 2,400 pounds (816 to 1,088 kilograms).

3. Native Habitat

At one time, bison were widespread from Alaska to northern Mexico, but the current range occupied by conservation herds has diminished to one percent of its original status. Today, herds can be found in parts of Alberta, British Columbia, Manitoba, Northwest Territories, Ontario and Saskatchewan in Canada, as well as Arizona, California, Idaho, Montana, South Dakota, Utah, Alaska and possibly Texas in the United States. Modern conservation herds are substantially fragmented.

Originally, bison were found primarily in the grasslands and prairie of North America. Today, bison distribution is greatly limited due to population decline and their movements are greatly regulated. Within the national parks, bison are found at all elevations.

4. Communication

Bison communicate through grunts to maintain contact with each other, and will snort to warn intruders. Male bison display their fitness by charging and butting heads with other bulls. They also bellow hoarsely, lower their heads, and paw the earth defiantly, but they rarely fight to the death.

They have an excellent sense of hearing and smell, but cannot see very well, so an entire herd can stampede if it is startled. Bison have cloven hoofs, and can reach speeds of 30 miles per hour.

5. Food/Eating Habits

Bison are year round grazers. They feed primarily on grasses, but will also consume flowering plants, lichens and woody plant leaves depending upon availability. To find grass in winter they sweep their heads from side to side to clear the snow. On the average, bison ingest 1.6 percent of their body mass per day of dry vegetation. Bison require water every day as well.

At the Smithsonian's National Zoo, bison consume a diet of orchard grass hay and herbivore pellets.

6. **Social Structure**

Bison are usually found in bands arranged by sex, age, season, and habitat. Older bulls are often solitary. Both cows and bulls live in a dominance hierarchy, which is established early in life. Most of the year, females with young form small bands, and immature bulls may stay with them. The bands may congregate in large herds in the spring or fall to search for food or water. Mature males have their own groups that may reach up to 30 individuals. Grazing takes place during several periods each day and is conducted in loose groups. When bison travel, they form a line. Bison are also adept swimmers, able to cross streams and rivers without difficulty.

7. **Reproduction and Development**

Females are sexually mature at 2 to 3 years of age. While males reach maturity around age three, they generally do not breed until six years of age. Mating season runs from late June through September, and gestation can last around 285 days. Breeding bulls will protect their chosen females and, with little time to eat, may lose more than 200 pounds during the breeding season. A single yellow-red calf will be born away from the herd in a secluded area. After a few days, the calf can keep up with the herd and follows its mother until the following spring. Calves are nursed for seven to eight months and are fully weaned by the end of the first year.

8. **Sleep Habits**

They prefer to graze in the morning, rest, ruminate (chew cud) in the middle of the day and then graze again in the evening. Bison wallow in the dust and mud to keep cool and to sooth irritating insect bites.

9. **Lifespan**

The life expectancy of American bison is 15 to 20 years. Adult bison are relatively safe from natural predators; however, weak, old or young bison may fall prey to mountain lions, bears or wolves.

See tab section - **CONSERVATION:**

10. How many buffalo were there historically? **30 to 100 million** By 1890's? **< 1,000**

11. What was intended effect of the bison slaughter on American Indians?

To destroy the livelihood of Plains Indians

12. How many are managed today in livestock herds? **500,000** In conservation herds? **30,000**

13. Buffalo meat is low in fat and cholesterol. It is high in Omega 3, which can help prevent disease and prolong good health. What consumers might be interested in this?

People on diets, people with heart trouble, people want to eat healthy

14. Read about How are Bison being preserved in the Osage / Flint Hills at [Tallgrass Prairie Preserve - Osage County, Oklahoma](#). How many acres do the bison have? **25,000 acres**
How many bison are in this herd? **2,100**
*The Tallgrass Prairie National Preserve in Chase County, KS also has a small bison herd.

15. Read about how in 2017 the **Osage Nation** started its own [bison herd on the new Osage-owned Bluestem Ranch](#). At the 43,000-acre ranch dedication in 2016, Chief Geoffrey Standing Bear stated he hopes someday to “see this land as a refuge for our sacred bison.”
How important do you think this effort is to the Osage? Why? **(answers vary) Very important, because it restores relationship with the animal the Osage depended upon for centuries; the bison are sacred to the Osage; bison meat could provide healthier food for native people; bison products could become a business for the Osage**

Bailey, Garrick, ed. *Traditions of the Osage - Stories Collected and translated by Francis LaFlesche*. Albuquerque: University of New Mexico Press, 2010; and Burns, Louis F. *History of the Osage People*. Tuscaloosa: University of Alabama Press, 2004. Compiled 2018.