



Wildlife Biologue

American buffalo (Bison bison)

It is believed that buffalo, or bison, crossed over a land bridge that once connected the Asian and North American continents. Through the centuries buffalo slowly moved southward, eventually reaching as far south as Mexico and as far east as the Atlantic Coast, extending south to Florida. But the largest herds were found on the plains and prairies from the Rocky Mountains east to the Mississippi River, and from Great Slave Lake in Canada to Texas.

Because the great herds were nearly gone before any organized attempts were made to survey populations, we may never know just how many buffalo once roamed North America, although estimates range from

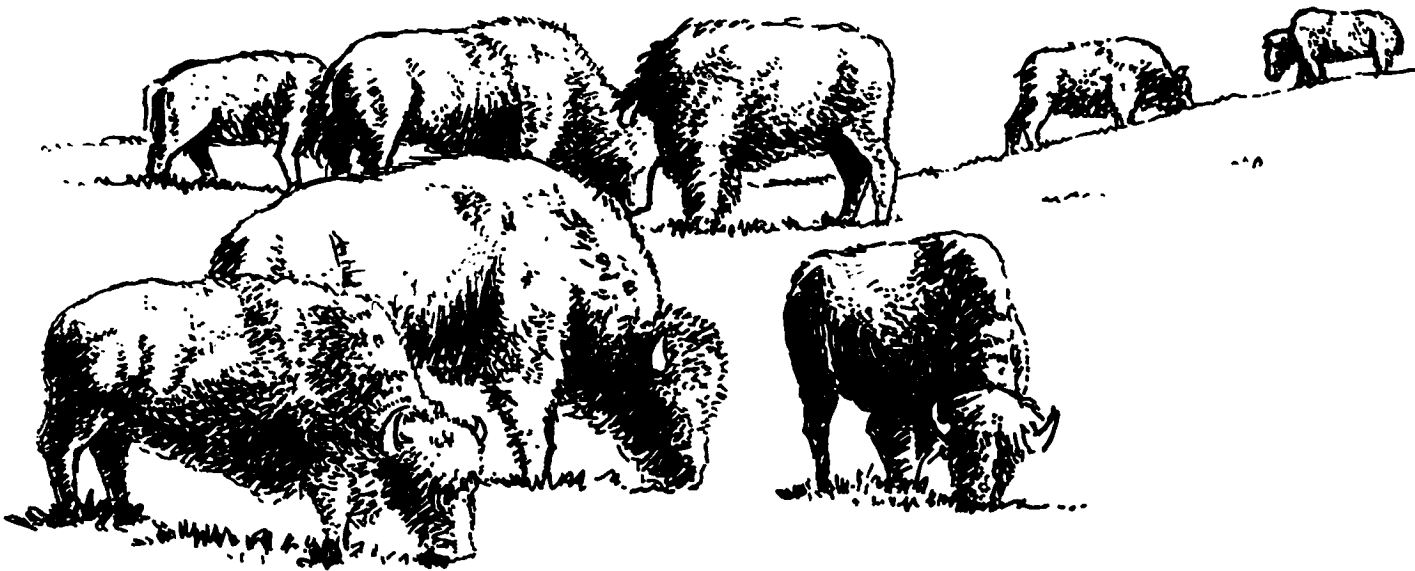
30 to 75 million. "The moving multitude... darkened the whole plains," wrote Lewis and Clark, who encountered a herd at South Dakota's White River in 1806.

Although the buffalo's size and color, which ranges from light to dark brown, vary in different areas of the country, experts generally agree that all American buffalo belong to the same species. The differences in appearance probably result from the variety of environments in which they live.

Like their close relatives, domestic cattle and sheep, buffalo are cloven-hooved. Both males and females have a single set of

hollow, curved horns. The male buffalo, called *bulls*, are immense, often weighing a ton or more and standing 5 to 6 feet high at the shoulders. The huge head and great hump covered with dark brown woolly hair contrast sharply with the relatively small hips. The females, or *cows*, are not as massive. Despite their great size and bulkiness, buffalo have amazing mobility, speed, and agility, and are able to sprint at speeds of up to 30 mph.

In the spring, buffalo begin to shed their heavy winter coats, and soon their hair hangs in tatters. To hasten shedding and possibly to relieve their itching skin, buffalo rub against large stones and trees. By late



Although estimates indicate there were between 30 to 75 million buffalo in North America at one time, the great herds were reduced to less than 300 animals by 1900. Today, buffalo populations are strong once again, with an estimated 200,000 roaming the plains, many at National Parks and National Wildlife Refuges.

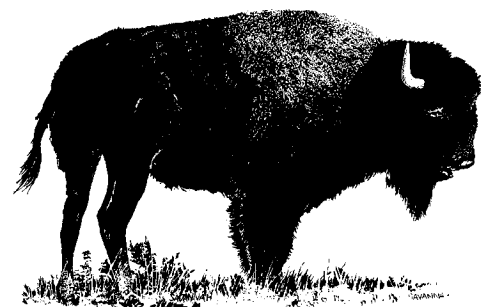
spring, the only remaining long hairs are on the head, forelegs, and hump. To escape the torment of attacking insects, buffalo wallow in dust or sand.

With the arrival of the breeding season in mid-to late summer, the herds become restless. The bulls, aloof most of the year, now drift among the cows and calves. Noticeably quiet at other times, the bulls bellow hoarsely and become quarrelsome. Many fights occur over females, and the combatants, with lowered heads, paw the earth defiantly.

Cows give birth usually every year to one tawny to buff-colored calf. Most of the calves are born between the middle of April and end of May, but some arrive as late as October. At birth, the calves have only a faint suggestion of the hump they will develop later. Buffalo begin grazing (primarily on grasses) while still very young, although some may continue to nurse until they are nearly a year old. Buffalo may live to be about 20 years of age.

By 1800, the small buffalo herds east of the Mississippi River were gone. Buffalo may have been killed to protect livestock and farmlands in that region. With westward expansion of the American frontier, systematic reduction of the plains herds began around 1830, when buffalo hunting became the chief industry of the plains.

Male buffalo often weigh a ton or more and stand 5 to 6 feet high at the shoulders. The huge head and great hump covered with dark brown woolly hair contrast sharply with the relatively small hips. Despite their great size and bulkiness, buffalo have amazing mobility, speed, and agility.



Organized groups of hunters killed buffalo for hides and meat, often killing up to 250 buffalo a day.

Unfortunately, many people at the time also wanted to eradicate buffalo as a way to take away the livelihood and well-being of Native Americans. Native American tribes depended on the buffalo's meat and hides, and many still today believe the animal has special spiritual and healing powers, making it an important part of their culture.

The construction of the railroads across the plains further hastened the depletion of buffalo populations. Hunting from train windows was advertised widely and passengers shot them as the buffalo raced beside the trains. By 1883 both the northern and the southern herds had been destroyed. Less than 300 wild animals remained in the U.S. and Canada by the turn of the century out of the millions that once lived there.

Conservation of the buffalo came slowly. In May 1894, Congress enacted a law making buffalo hunting in Yellowstone National Park illegal. Eight years later, money was appropriated to purchase 21 buffalo from private herds to build up the Yellowstone herd. With adequate protection, this herd has steadily increased until it numbers almost 3,000 animals today. Hundreds of buffalo also inhabit the National Bison

Usually solitary, male buffalo join female herds during the mating season, often quarreling with other males over mates. While these males are only sparring, in a serious battle the bulls' behavior would be more aggressive.



Range in the Flathead Valley of Montana, the Wichita Mountains National Wildlife Refuge in southwest Oklahoma, the Fort Niobrara National Wildlife Refuge in northern Nebraska, the Sullys Hill National Wildlife Refuge in northwestern North Dakota, and Walnut Creek National Wildlife Refuge in Central Iowa.

Many other private herds have boosted the buffalo's overall population over the years as well. While the present herds, numbering about 200,000 buffalo in all, are not as large as the great herds that once ranged the North American continent, they are large enough to ensure the continued well-being of the American buffalo for generations to come.