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NORTHWEST WILDLIFE PRESERVATION SOCIETY

Bison

Bison bison



By Rowena Shi

Bison are the largest terrestrial animal in North America, in fact they are the largest in the entire Western hemisphere. Bison are good swimmers and can cross rivers over a kilometre wide. They are nomadic grazers and travel in herds. The bulls leave the herds of females at two or three years of age, and join a male herd which is generally smaller than the female herds. Mature bulls rarely travel alone. Towards the end of the summer, for the reproductive season, the sexes necessarily commingle. Bison are known for living in the Great Plains. They were hunted close to extinction during the 19th and 20th centuries, but have since rebounded. The plains bison is no longer listed as endangered, but the wood bison is on the endangered species list in Canada.

Common name: Bison, sometimes erroneously called buffalo.

Characteristics

The bison is the largest land animal in North America. Males can stand six feet from hoof to shoulder and weigh 900 kg (2,000 lbs). Females are around five feet tall and weigh between 375-450 kgs (800-1000

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lbs). The bison has long shaggy brown fur, a mane and beard under its chin and a long tail with a tuft of hair at the end. It has a big head with short black horns (60 cm long) and a hump on its shoulders. The head of the bison alone can weigh 225 kg (500 lbs)! Despite their massive size, bison are quick on their feet. When the need arises they can run at speeds up to 65 km/hr.

Life Cycle

Female bison are ready to mate when they are 2-3 years old. Males aren't ready to mate until they are about six. Mating season begins in July and can run through September. When mating season begins, male bison move into female groups and select a female. They then "tend" the female.

Males tend a female by staying between her and the rest of the herd. Tending can last for a few minutes or for several days. If a female isn't interested in a male, she walks away. Males threaten and sometimes attack other males that try to get too close to a female he is tending. Fights between males can involve head butting, shoving, or locking horns.

The female gives birth to one calf after about nine months. She goes to an isolated area to give birth. Newborn bison are reddish brown and stand shortly after birth. The mother and her calf stay isolated from the herd for a couple of days. At about two months, the calf begins to develop shoulder humps and horns. The calf is usually weaned by the time it is seven months old, but it stays with its mother until it is a year old. Bison lives 15-20 years in the wild.

Habitat

Bison live in river valleys, and on prairies and plains. Typical habitat is open or semi open grasslands, as well as sagebrush, semiarid lands, and scrublands. Some lightly wooded areas are also known historically to have supported bison. They also graze in hilly or mountainous areas where the slopes are not steep. Though not particularly known as high-altitude animals, bison in Yellowstone National Park frequent the high country at elevations above 8,000 feet.

Bison historically occurred throughout the grasslands and open savannas of North America. However, they were also found from boreal habitats to semi-desert habitats if grazing was suitable. Bison are now more limited in distribution and, therefore, the habitats they occupy. They are currently found in fragmented populations in protected areas throughout western North America.

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At one time, bison were widespread from Alaska to northern Mexico. Wholesale slaughter of bison herds caused the extermination of wild bison from the major part of their former range until recently. Bison are now found on private and protected lands in areas of the western United States and Canada. Most prominent of those herds are those of Yellowstone National Park in Wyoming and Wood Buffalo National Park, Northwest Territory, Canada.

Behaviour

Bison are herbivores and bulk feed on grasses and some sedges. They feed for large amounts of time to keep up their huge bulk. Bison are also ruminants, which means they have a four-chambered stomach that allows them to draw even more nutrients from their food with extra levels of digestion.

Wallowing is a common behavior of bison. A bison wallow is a shallow depression in the soil, either wet or dry. Bison roll in these depressions, covering themselves with mud or dust. Possible explanations suggested for wallowing behavior include grooming behavior associated with skin and fur moulting, male-male interaction (typically rutting behavior), social behavior for group cohesion, play behavior, relief from skin irritation due to biting insects, reduction of ectoparasite load (ticks and lice), and thermoregulation. In the process of wallowing, bison may become infected by the fatal disease anthrax, which may occur naturally in the soil.

Bison temperament is often unpredictable. They usually appear peaceful, unconcerned, even lazy, yet they may attack anything, often without warning or apparent reason. They can accelerate quickly for such a large animal and can cover long distances at a lumbering gallop.

Their most obvious weapons are the horns borne by both males and females, but their massive heads can be used as battering rams, effectively using the momentum produced by their enormous size, strength and speed. The hind legs can also be used to kill or maim with devastating effect especially when attacked by wolves.

Threats

Due to their size, bison have few natural predators, the grey wolf being by far their most significant. Grey wolves hunt bison while in a pack, the larger the pack the greater their success. In fact bison are the largest prey for wolves worldwide. Grizzly bears will prey on bison calves, and there are a few cases in places like Yellowstone where coyotes can cooperatively take very young bison. Historically and prehistorically, lions, Smilodon (sabre-tooth), and cave hyenas had posed threats to bison.

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Bison can also contract the illness of malignant catarrhal fever, though brucellosis, which is a serious concern in the Yellowstone Park bison herd. Bison in the Antelope Island herd are regularly inoculated against brucellosis, parasites, *Clostridium* infection, infectious bovine rhinotracheitis, and bovine vibriosis.

However, far and away the greatest threat to bison is the refusal of humans to accept them. Tens of millions of bison once thundered across the Great Plains. For centuries, Native Americans depended on bison as a source of food, clothing and shelter in order to survive on the open plains. But in the mid-1800s, ever-increasing hunting pressure began to take its toll. Unregulated shooting led to mass slaughters of bison in the 1870s, and by 1889, scarcely 1,000 bison remained (a decline of over 99.5%). Today, wild bison are making a small comeback in a few scattered places, but they need more room to roam.

Even though bison are no longer threatened with extinction as a species, they are still not allowed to be a wild animal and perform their important keystone role in their grassland environment, except in a very few small areas. This is why, some consider for all intents and purposes, bison are “ecologically extinct.” Almost all of their historic stomping grounds are off limits, due primarily to opposition from livestock interests.

Wild bison make their home on the grasslands that once covered so much of central and western North America. Today, much of these vital habitats have been plowed and built over by humans. Nearly half of all temperate grasslands have been converted to agriculture and urban development. Despite the pace of this destruction and the variety of wildlife that depend on grassland ecosystems, less than 8 percent of all grasslands on Earth are protected.

However, millions of acres of habitat remain for wild bison restoration. If bison are ever to reclaim their place on the Great Plains, serious efforts need to be made to secure safe habitat for them, and to combat the intolerance toward this animal that was indeed a North American icon.

What We Can Do To Help

Over 90 percent of bison today are under private ownership, raised like cows for bison meat. In fact at the turn of last century, ranchers often interbred bison with cattle to improve their cattle herds. As a result, cattle genes are now present in many bison populations, and few genetically pure bison herds remain. Current policies and a tradition of fencing ranches—as well as issues that include disease and competition for grazing land, discourage free-ranging bison herds in the West. Besides visitors to Yellowstone, the public mostly views bison behind fences rather than as free-ranging, native wildlife.

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This perceived domestication fosters confusion about the need and opportunity to conserve this wild species.

Bison confined by fences can no longer extensively interact with other species or influence the composition of their habitats by contributing to grassland nutrient cycling regimes and impacting plant communities. While we may not regain the 60-65 million bison that roamed this continent only 200 years ago, we can save this species and the ecosystems of which it was a part.

In early 2010, we greatly increased the size of our herd with the addition of 94 bison from Elk Island National Park in Alberta, Canada. The ancestors of these bison originally came from Montana and were part of the Pablo herd, the largest herd of bison left in North America in the early 1900s, after they were largely extirpated from the Great Plains. The Pablo herd was privately owned until the Canadian government purchased the bison in 1907. The return of these bison to Montana continues to be a historic homecoming – 71 additional bison calves were transferred from Elk Island to American Prairie Reserve in early 2012 and another 73 calves were relocated in early 2014.

Where can the animal be viewed in the wild

In British Columbia, bison only occur in the northern ranges of our province. One of the largest herds exists in the Liard river provincial park, north of Fort Nelson.

Other habitats key for bison in Canada include Wood Buffalo National Park in Alberta/NW Territory and Grasslands National Park in Saskatchewan. In the United States, prime bison observation can occur in Yellowstone and Grand Tetons National Parks in Montana and Wyoming where approximately 3,500 bison roam.

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