

B•U•F•F•A•L•O Country

Article and Photos by David M. Johnson

Delta Junction, Alaska, is buffalo country. Even if you never see a buffalo while driving through this interior Alaska community, it would be hard to miss their presence. Where else in Alaska can you see bison crossing signs on the road?

The Buffalo is a popular motif in this town of 4,000. For example, if you stop for gas in Delta, you might fill up at Buffalo Service. If you're hungry, you might eat your meal under the watchful eye of a stuffed buffalo at the Trophy Lodge. The City of Delta has a buffalo on its stationery, as does the Delta Chamber of Commerce. The Fort Greely post newspaper is called *The Buffalo*, and the local square dance group is the "Buffalo Squares." Naturally, their big event of the year is the "Buffalo Wallow."

All this interest in bison, as they are more properly called, dates back to 1928. That's when the Alaska Game Commission released 19 bison near McCarty, as the community of Delta Junction was then known. Three more bison were held temporarily at the University of Alaska in Fairbanks, but joined the herd two years later. All these bison came from the National Bison Range located at Moiese, Montana.

While Alaskans at the time probably thought this transplant the introduction of an exotic species, it was actually a reintroduction. Remains of modern bison from as recently as 500 years ago have been found elsewhere in Alaska, and older bison remains have been found along the Delta River, the present summer range of the Delta bison herd. A progression of species of bison, all now extinct except modern bison, were at one time the most common large land mammals in Alaska. The last of them died out sometime within western man's occupation of the new world.

In any case, the bison brought to the Delta area fared well, and 20 years after the transplant, nearly 400 bison lived here.

In fact, the bison herd grew too large in the absence of effective large predators; consequently, it crashed to under 300 within a year or two of this peak. Since the early 1950s, a controlled

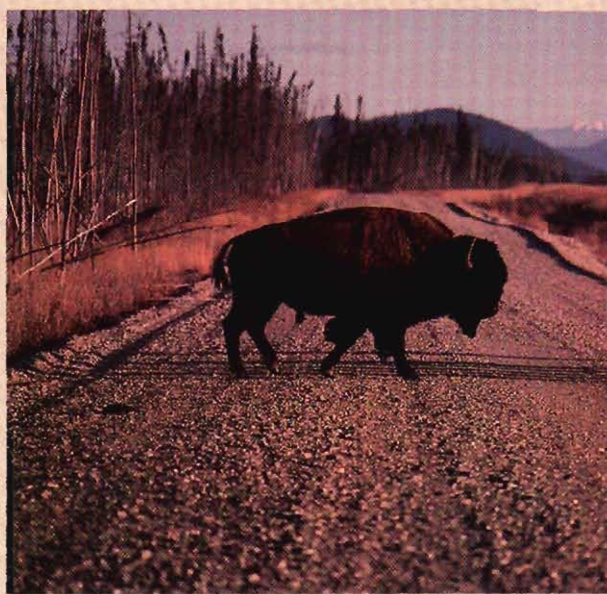
hunting season has limited bison numbers to a size that can be supported by available range. Today, the herd numbers some 300 animals before calving.

In the early days of bison in the Delta area, the herd spent its winters around the Delta community. That led to some interesting human-bison interactions—like large military transport aircraft having to abort landings at Allen Army airfield on Fort Greely as a shaggy herd of bison wandered across the runway in search of forage. Former Legislator H. Pappy Moss of Delta tells the story of waking up one night to the shaking of his mobile home. Thinking that an earthquake

was in progress, Pappy looked outside and found his trailer surrounded by dark, shaggy shapes. They were using his home for a scratching post. Delta Fish and Game Advisory Committee chairman, Dean Cummings, a long-time Deltan, remembers the quick stop he made to avoid hitting bison on the Richardson Highway one night. He missed them, but one young bull, apparently dazed by the bright lights, circled the car and ran headlong into the door, denting the panel as if it were cardboard.

With its close relationship with bison, it is small wonder that some earlier map makers labeled the Delta Junction area "Buffalo Center." That close relationship hasn't been all fun and amusing anecdotes, however. Farmers haven't found bison in their crops at all entertaining.

Beginning some three decades ago, farmers began clearing land and planting crops in this part of the broad and nearly flat Tanana Valley. Bison prefer open spaces to spruce forests and, to the chagrin of early farmers, began to make use of the hay and cereal grains being planted. The problems began in



Bison, numbering 300 in the Delta Junction area, are a familiar sight. With careful management, they coexist with cattle in the rich farmland of the Tanana Valley.



Inset: Nearby, Delta area cattle graze on the rich agricultural land of the Tanana Valley.

Part of the Delta area bison herd forages in cleared fields made available to them. Berm piles indicate where trees, knocked down and pushed into parallel rows, have been burned.

the 1950s, and continued throughout the 1960s, but in the 1970s, as agricultural development began on a large scale in the Tanana Valley, the problems intensified.

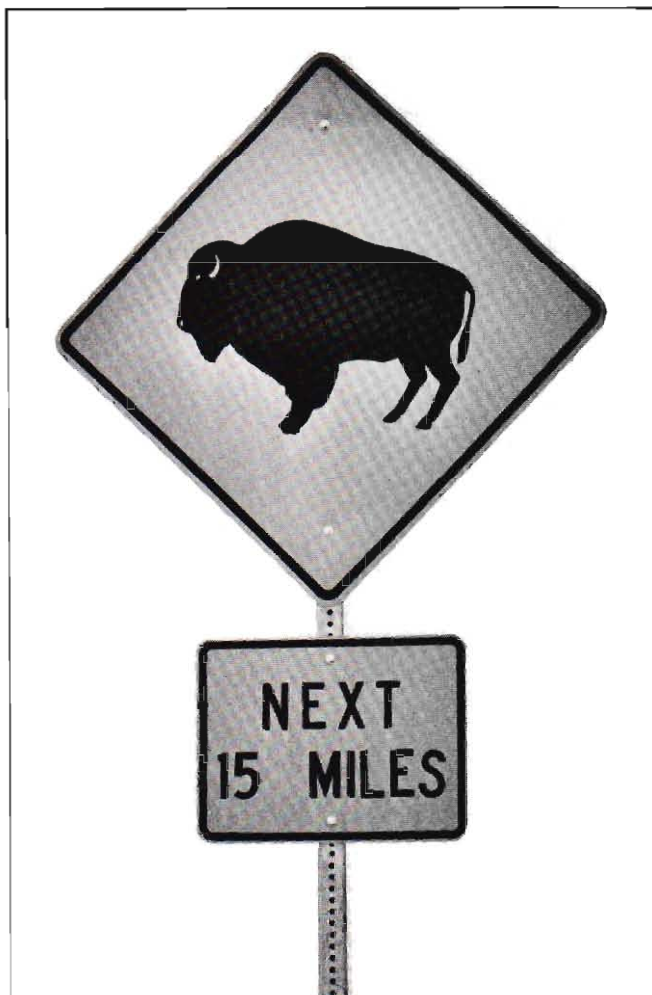
In the mid-1970s, a land-use planning effort was initiated to plan for orderly development of land and area resources. The Department of Fish and Game was a part of the planning team, and recommended early on that land be set aside to mitigate for losses of wildlife habitat. A key concern was bison habitat, as agricultural development was being strongly considered within their winter range and it was easy to foresee the problems of crop depredations—and just as important, habitat loss due to fencing.

Out of this concern grew the concept of a Bison Range, and at the conclusion of the planning process, the team recommended that the land south of the Alaska Highway and east of Fort Greely be retained as wildlife habitat and be established formally as a bison range.

And so it came to be that the Delta Junction Bison Range was created by legislation in 1979. The original law laid out two purposes for the range: to perpetuate free-ranging bison by providing adequate winter range, and to alter seasonal movements of bison to reduce damage to agriculture. The legislation set aside about 90,000 acres between the Fort Greely military reservation and the Little Gerstle River. The range extends from a quarter mile south of the Alaska Highway to the foot of the Alaska Range. It begins about 12 miles from Delta Junction at its closest and lies just a half mile across the Alaska Highway from the Delta Agricultural Project.

At first, it seemed as if even a half mile was not close enough. Bison ignored the 75 acres cleared and planted the first year, and, instead, made extensive use of crops on the agricultural project. Without trail connection to their sum-

mer range, there was little reason for them to explore what they probably thought was still a black spruce forest of little value to them.



Then, the United States Army came to Alaska's aid with a system of trails and food plots designed to lead the bison slowly around Fort Greely, away from the Agricultural Project, and into the Bison Range. A trail was developed all the way from the summer range right into the bison range. In 1982, most of the bison herd migrated right down the trail corridor and into the range. The trail system worked because bison have traditionally summered along the wind-swept Delta River, and then moved northeast to their winter range, the area from Delta to as far east as Healy Lake. The trail took them from the summer range along the quiet paths they prefer to what they considered the best part of their winter range—the Delta Junction Bison Range and the Agricultural Project.

It became apparent that bison were going right to the bison range and actually staying for some length of time before moving onto the farms. ADF&G staff developed a technique to

assist the farmers by tracking bison movements using radio collars. Once a group of bison were located, one or more staff would haze them back to the range. A variety of means has been used to scare bison out of farm fields, including automatic propane "cannons," rockets, noise bombs, cracker shells, and other devices. One of the best methods, however, is simply walking slowly towards them. They are quite shy of people on foot, and a walker can often get them to return to the range.

The amount of forage available on the range was gradually increased, and that, coupled with hazing activities, led to increasing success at reducing crop depredations. In fact, it began to look almost as if the bison were becoming



Left: ADF&G game biologist Bob Pegau attaches a radio collar to a bison. Radio collars help ADF&G employees to monitor movements of the bison and to keep them from interfering with agricultural activities.

Below: A controlled fire destroys forest cover to make way for grasses and brush for both bison and moose.



“trained” to stay on the range away from all the commotion. Still, problems persisted. Farmers continued to suffer crop losses. It mattered little to a farmer that the overall crop-loss picture was improving—he still had bison trampling, eating, and wallowing in his crops. He was losing money. In other words, the problem had lessened, but not disappeared.

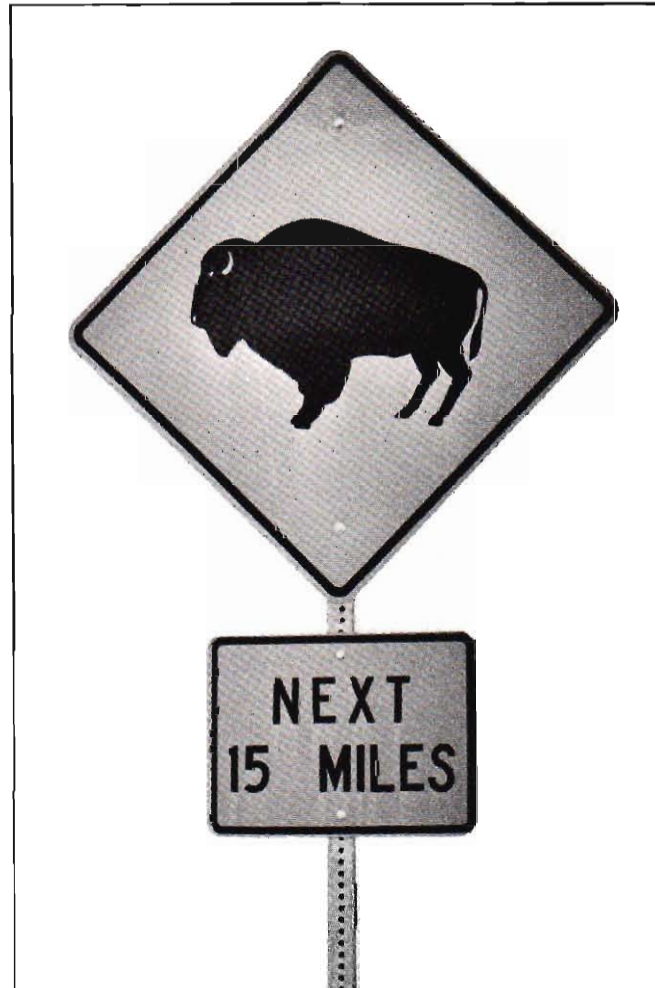
Since the beginning of the Bison Range project, staff game biologists have recognized that substantial clearings would be needed. Nevertheless, with the small financial allocations available each year, it looked as if real relief for the conflict was years away.

Recognizing the problem, and seeing the potential of the Bison Range, a group of Delta citizens organized in late 1983 to seek a solution to the long-standing conflict. The Delta Junction Bison Range Ad Hoc Committee was comprised of sportsmen, farmers, civic leaders, businessmen, local legislators, and personnel from state and federal conservation agencies, the University of Alaska, and ADF&G. The group’s purpose was to resolve the conflict of bison versus agriculture.

The committee developed a proposal for the Alaska Legislature that included sufficient funds to complete the development of the Delta Bison Range, erect a barrier to bison drift along the southern boundary of the Agricultural Project, and increase the bison hunting permit application fee to develop a pool of funds for future bison management. The proposal was drafted in bill form and introduced in both houses of the 1984 Alaska Legislature; with the exception of the drift barrier, it was largely accepted. The Legislature granted a \$1.5 million appropriation for the range beginning July 1, 1984.

The first expenditure of the development fund was used in early July 1984, to plant the remaining cleared acreage on the Range with bison forage. The forage was used by

migrating bison throughout September 1984, cutting crop damage by bison to the lowest level since before the inception of the Agricultural Project.



Development work has continued in earnest this year with the clearing and planting of an additional thousand acres of bison forage. ADF&G will contract with operators of large crawler dozers and farming equipment to do the actual development work. When the project is complete, between 3,000 and 4,000 acres will be cleared and planted.

A combination of annuals and perennials will be planted for forage. The annuals (barley has worked well) are used to prevent the bison from eating the emerging, slow-growing, perennial grasses. The perennials (such as brome, fescue, bluegrass, and timothy) mature the second year and provide a low maintenance crop to hold the bison during the harvest and over the winter.

The clearings will be laid out to allow the safe ignition of prescribed (or controlled) fires in forested areas. The fires will destroy the forest cover, largely small black spruce, and will permit the growth of grasses and

brush, which will be used by bison and moose, as well as other species.

It is formally known as the Delta Junction Bison Range, but the land will have an array of benefits for other wildlife as well. Songbirds will find new nesting habitat, moose will make use of the extensive plantings in the summer and the brushy cover created by fire in the winter. Foxes will benefit from increased rodent populations, as will birds of prey. Bears have already been seen grazing on the new plantings, and hares will find the newly-burned brushy habitats to their liking. The increased diversity of habitat types and vastly increased forest edge will make the area much more acceptable to many species.

The improvements will also be good for people. Trails developed to lead bison between major clearing areas will provide access for hunters, hikers, and trappers. Viewers will find the Bison Range a good, reliable place to observe bison in the fall. A water well, which has been drilled for the bison, should provide a focus for bison activity where photographers can capture them on film.

Naturally, the Bison Range will be good for Delta's farmers, too. Farming in Alaska is no easy job, and bison depredations have hurt farmers in the Delta area. With the completion of the Bison Range, most bison depredation problems should

come to an end.

The world is full of examples of how wildlife habitat has been lost to development, and how wildlife populations have suffered. The potentials for future habitat losses, even in Alaska, are staggering. Yet, it need not always be this way. A group of Alaskans dedicated to the ideal that wildlife and development can usually coexist have shown what can be done. ■

David M. Johnson, an area game biologist with ADF&G, has served in Delta Junction for the last five years. He has been concerned with the Delta bison question since the 1970s.

Bison Natural History Notes

by David M. Johnson

With adult bulls sometimes weighing up to a ton and standing 6½ feet at the shoulder, the American bison (*Bison bison*) is the largest native land mammal in North America. Once widely distributed and locally abundant throughout more than half the continent, bison today are limited to a few enclaves in the mid-west, west, and northwest. Two subspecies are recognized today: the wood bison and the plains bison. Originally, the wood bison was the northwesterly branch of the species and included the bison found in Alaska until about 500 years ago. Alaska's present-day population is made up of plains bison. Generally, the neck, tail, and forehead hairs appear longer, and there are no "chaps" on wood bison. The largest existing stock of wood bison are in Canada's Northwest Territories.

Most bison begin their lives in May, although some are born as early as April and as late as September. Single calves are the rule, with twins very rare. Calves are reddish-orange at birth, but steadily turn to the dark brown color of the adults as summer progresses. The precocious calves can run and kick their hind legs in the air within a few hours of birth.

Predation upon bison is uncommon in Alaska. People have reported a few instances of predation by wolves or grizzly bears, but, in general, bison here can protect themselves successfully. I once watched a group of about a dozen bison encounter a grizzly bear south of Delta Junction. The bear obviously was interested in a meal and tried several approaches on the tightly-bunched bison and their calves. Each attempt was met by a group rush to outflank the bear. When I last looked, the bear had decided that it was easier to eat blueberries, and the bison were continuing on their way.

Although bison are strong swimmers, drowning is a danger, especially in crossing icy rivers.

A bison herd is actually made up of a number of smaller groups ranging in size from two to as many as 200 animals. Rarely is the entire population or herd together in one small area, although during the peak of the rut in mid-to late summer, this may happen temporarily. Bulls are often solitary, or in male-only groups. Observations at Delta suggest that bison groups are not stable and readily exchange individuals. In fall, most of the groups are usually led by an older cow.

Bison are grazing animals, and that limits the places they can live in Alaska. Because they cannot paw through deep or crusted snow, they survive best in windy areas. Bison use some browse, but most of their food is comprised of grasses and sedges. Moraine lakes in the Delta Junction area often have a ring around the ice in late winter where bison have pawed through shallow snow to find sedges growing on the lake margins.

Most bison are migratory. In Alaska, strong seasonal movements have been noted. In the Delta area, bison move between the Delta River, where they calve, to the Delta Junction area and east. Formerly, the bison moved to the immediate Delta area in late summer or fall to make use of forage in recent burns, yards, and even the city dump. Lately, with the development of the Agricultural Project and the Bison Range, the bison have generally migrated south of Delta proper to their winter range.

Four bison herds exist in Alaska: the largest at Delta with more than 300 animals, another along the south fork of the Kuskokwim River near Farewell with more than 100 animals, and smaller herds on the Chitina and Copper Rivers with more than 50 each. The smaller herds grew out of transplants from the Delta herd.

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