

A scenic landscape photograph featuring a vast, golden-brown grassy field in the foreground. In the lower-left corner, a single bison is grazing. The middle ground is dominated by a large, horizontal wooden sign with a weathered texture. The background consists of rugged, snow-dusted mountain peaks under a clear blue sky.

Travelers are finally
discovering the buffalo,
hilly prairies, and other
wonders of the National
Bison Range in Moiese

The 2,000-pound bison bull stood his ground in the middle of the narrow gravel road.

The massive head, topped with heavy, black horns, hung low on the huge, shaggy hump of shoulder muscle. The horns seemed a bit too close to the grille of my little import, which I feared looked either like a scratching post or something to ram.

"Watch his tail," said my wife, Linda, as she read from the brochure we had picked up at the National Bison Range visitor center.

"Why his tail? His head's closer," I replied.



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A LOT OF BULL Male bison can weigh nearly a ton, and females about half that. Roughly 475 bison roam the hilly prairies at the National Bison Range, near Missoula.

bought 18,500 acres from the Confederated Salish and Kootenai Tribes. Using private donations, the American Bison Society stocked the range with 34 bison it purchased from the Conrad family.

Today, the range is home to 350 to 500 bison, as well as 50 other mammal species and 200 species of birds. The range is a destination not only for tourists but also students, researchers, and biologists studying everything from animal behavior to plant life.

Homing in on the Range



By
Gary Beeler

"The brochure says that if the tail is hanging down, the bison is happy, but if it's sticking straight out, it's unhappy. And if it's pointing straight up, well, we might have to ride a bus home."

This one must have been content, because his tail was hanging low, twitching lightly. With an explosive snort that raised a small puff of dust from the road, the magnificent animal sauntered out of the way, and we continued our driving tour through one of the nation's oldest and most scenic wildlife refuges.

From many to few

Millions of bison once roamed the western plains, but by the late 1800s only 1,000 or so remained. Of those, fewer than 100 lived in the wild. The rest of the West's great bison herds had been killed, mainly for commercial sale of their hides and meat.

In 1873 Walking Coyote, a Pend d' Oreille Indian, captured five wild bison, all orphaned calves, while hunting the plains

east of the Continental Divide. He herded the calves back home to the Flathead Valley. In 1884, Walking Coyote sold his bison herd, which had grown to 13 head, to Flathead Valley ranchers Michael Pablo and Charles Allard.

Years later, Allard's heirs sold their herd to Charles Conrad. Pablo sold his to the Canadian government, which used the animals to reestablish a herd at Banff National Park in Alberta.

By the start of the 20th century, Americans feared that bison, a symbol of the Great Plains and the nation's West, would soon disappear entirely. After spending months searching for a bison to mount for the museum, Smithsonian Institution taxidermist William Hornaday became so alarmed at the lack of bison on his trip that he formed the American Bison Society. The organization convinced President Theodore Roosevelt and Congress to establish three bison reserves. The National Bison Range in Moiese was established in 1908 when the government

Life on the range

Bison are the largest living land mammals in North America. Females reach 1,000 pounds, and males can grow twice that large. The animals mate in late summer. When the calves are born, nine months later, their coat is reddish. After three months, the coat turns dark brown, like an adult's.

Cows may begin mating at age two. Though bulls are able to mate at age three, they wait a few more years until they can compete with the mature bulls for cows. Bison have a thick mass of fur on their head that protects them when fighting, a common activity among bulls during the July and August breeding season. The bulls lower their heads and charge from within 20 feet of each other, bumping heads (not horns), with little apparent damage.

Bison are most active in the early morning or late afternoon. During the heat of the day, they lie around chewing their cuds (regurgitated, undigested vegetation), roll-



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NATIONAL BOA RANGE? In addition to bison, the wildlife refuge is home to a variety of other wildlife. That diversity is largely due to the refuge's four distinct ecosystems: grassland, mountain forest, wetland, and streamside thicket. Among the menagerie visitors may see during a trip to the National Bison Range (from top to bottom): river otter, rubber boa, double-crested cormorant, and western meadowlark.



GEORGE ROBBINS



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ing in wallows (shallow depressions), or taking dust “baths” to ward off insects. Bulls urinate in the wallows, then roll in the mud for increased insect protection.

Bison thrive on a diet of grasses and wildflowers. During the winter, they use their huge head as a shovel, swinging it back and forth to knock snow aside so they can reach the underlying vegetation.

With its heavy coat and massive size, a bison appears to be slow and sluggish, but it can run as fast as a horse (faster than any human) and jump a 6-foot-high fence.

Outdoor classroom

Bison aren't the only animals thriving at the National Bison Range. The 30-square-mile area also holds roughly 150 elk and 100 pronghorn as well as mule deer, black and grizzly bears, mountain lions, bighorn sheep, coyotes, and bobcats.

The rolling hills contain wetlands, streams, and rare Palouse prairie, a rolling hill grassland more common in Washington, Oregon, and Idaho than in Montana. Conservation groups such as the Audubon Society conduct studies at the refuge. The U.S. Fish and Wildlife Service (USFWS), which manages the refuge, conducts ecology workshops and allows school groups to visit for science class outings.

Leslie Galarneau, who works at the nearby Country Side Café, has fond memories of visiting the bison range as a student.

“I grew up in Dixon,” she says, “and on school trips we studied life in the ponds and went to the fall bison roundups. On the last day of school, we would go to the range for a picnic.”

The USFWS uses the range as an outdoors laboratory. The longest-running research project, which began in the late 1940s, studies the effectiveness of using insects to control invasive noxious weeds. Much of the range is infested with dalmatian toadflax, spotted knapweed, St. John's wort, and other harmful invasives. According to Bill West, deputy project leader for the range's weed control efforts, the best results have been on St. John's wort, also known as goat weed.



USFWS range managers use the Klamath weed beetle to limit the spread of St. John's wort.

“In 1995, we had 8,000 acres covered with St. John's wort,” says West. “Klamath weed beetles were introduced to combat the weed. They cleared the range of that species and have not touched any other plant life.” By 1997, says West, only 400 acres were infested with St. John's wort, a reduction of 95 percent. “The use of herbicides and helicopters would have cost us a half-million dollars,” he adds. “The insect costs were just a fraction of that.”

West adds that a new pilot project now underway makes use of local volunteers who locate biocontrol insects and weed areas and then log the locations into GPS recorders. Afterwards, technicians enter the data into a geographical information system, a multilayered computerized mapping program that resource managers use to control weeds more efficiently.

Ecosystem tour

At the visitor center, guests can watch a movie about the refuge, get their questions answered, and pick up self-guided tour brochures. The shorter of the two tours, 5-mile-long Buffalo Prairie Drive, takes visitors past bison and great mountain views. But those who want to see the full extent of the refuge should take the longer route.

Four distinct ecosystems—grassland, mountain forest, wetland, and streamside thicket—comprise the National Bison Range, and all are visible from the 19-mile Red Sleep Mountain Drive. The grasslands are composed of bunchgrasses and wildflowers. Rough fescue grows on north-facing slopes, and bluebunch wheatgrass grows on the dryer southern slopes. The grasses thrive in the dry climate, which averages only 13 inches of rain per year,

and from grazing by bison, elk, and pronghorn.

The two dominant trees in the mountain forest eco-

system are Douglas-fir and ponderosa pine. The trees are an important food source for nonmigratory birds such as jays, chickadees, and woodpeckers, and they provide cover for elk and other wildlife.

Highly rich in insect life, the refuge's wetlands are a smorgasbord for ducks, sandhill cranes, and other birds, and they provide essential habitat for beavers, muskrats, mink, and other furbearing mammals.

Freelance writer and photographer Gary Beeler lives in Boyd.



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A SECRET NO MORE Once visited mainly by local and Missoula-area residents, the refuge has become more widely known in recent years. Among the refuge activities and features (from above): bird watching workshops, visitor center, annual fall bison roundup (see "If you go" below), and driving tours.

Streamside thickets are places of heavy vegetation along Pauline Creek, Mission Creek, and the Jocko River. These dense jungles of riparian willow and other trees, shrubs, and grasses provide excellent protective cover and a wide variety of food for deer, bears, beavers, and other species.

Look for all four ecosystems along Red Sleep Mountain Drive, which begins by ascending 2,000 feet along steep switchbacks to pine-covered hills. You'll also see the breathtaking vistas of the Mission Valley, bounded on the west by the Flathead River and on the east by the Mission Mountains. At the drive's 4,700-foot-high summit, look for the display that describes how historic Lake Missoula, born during the last ice age, once filled the valley floor.

After topping the high, cool hills, the drive drops back to the warm, rolling prairie, where bison raise dust clouds in wallows. Farther on, watch for mule deer peeking from willows lining the banks of Mission Creek. Near the end of the drive, consider relaxing in the shady picnic ground bordering the creek before returning to the start at the visitor center.

And always remember, whenever you see a bison—which you undoubtedly will—keep an eye on its tail. 🐃

EDITOR'S NOTE: *The U.S. Fish and Wildlife Service and the Confederated Salish and Kootenai Tribes recently announced an agreement in which tribal members will perform certain activities at the National Bison Range in 2005 and 2006. The agreement comes after ten years of negotiations between the tribes and the U.S. government.*

Under the Indian Self-Determination and Education Assistance Act, qualified tribes can petition to perform activities administered by the Department of the Interior (which oversees the USFWS) that "are of geographic, historic, or cultural significance to the requesting tribe."

Tribal members will conduct bird population monitoring, invasive weed control, prescribed prairie burning, and other management activities.

Due to public controversy over the agreement, Montana Senator Conrad Burns has promised to hold a congressional hearing later this year to evaluate its progress.



DEA VOGEL



NEAL AND MUMSHLER



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If you go

Directions: Take U.S. Highway 93 north from Missoula to Ravalli. Turn west on Montana Highway 200. Continue west to Dixon, then turn north on County Road 212 to Moiese, where you'll find the range entrance.

Open: The range is open year-round, but hours vary depending on the time of year. Call ahead at (406) 644-2211.

Fall roundup: In early October, cowboys herd the refuge bison into large corrals, creating a scene right out of a Western movie. Veterinarians check bison health and refuge staff brand calves to identify the animals' age. The roundup is open to the public.