



**A. Barkless trees,**  
scratching posts for  
bison, bear and elk

**B. Dunraven Pass,**  
8,859 feet, leading to Tower  
Fall and Lamar Valley

**C. Lush grasses and sedges,**  
good forage for bison and deer

**D. Sagebrush**  
on porous glacial soils

**E. Yellowstone River,**  
good pelican fishing ground

**F. Bison wallow,**  
dirt area where bison roll to fend off  
biting flies and remove shedding hair

# HAYDEN VALLEY

ELEVATION 7,200 feet

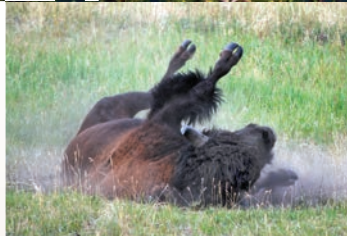


**GEOLOGY:** At the end of the Ice Age, a remnant of an ice sheet in northern Yellowstone probably blocked the Yellowstone River, making Yellowstone Lake deeper and larger. Hayden Valley would likely have been a northern arm of the lake at the time.

There are only a few geothermal features in this area, one of which is Mud Volcano, perhaps the smelliest place in the park. Its rotten egg smell is from hydrogen sulfide gas bubbling from the mudpot (see page Nor).

**ECOLOGY:** Hayden Valley is one of the best places in the park to view wildlife. Besides hundreds of bison, a patient observer may spot bears, wolves, elk, deer, otters, and swans. American white pelicans enjoy summers on the Yellowstone River and Lake, but in winter migrate to the coasts of California or the Gulf states. Males weigh as much as 30 pounds and their wingspans exceed nine feet! Unlike coastal brown pelicans, which plunge-dive to feed, white pelicans feed as they swim. They can often be seen working together using coordinated wing beating and bill dipping to “herd” fish to shallow water where they are more easily scooped up in their large throat pouch.

White pelican



Bison wallowing in the dirt (F).

The vegetation on the valley bottom varies between dry sagebrush areas (D) and lush meadow grasses (C). The difference can be explained by the alternation of fine-grained lakebed silts and clays with porous glacial deposits. The former are rich soils favoring thick grasses, while the latter are dry, poor soils, in which sagebrush can grow.

The grasses and sedges of Hayden Valley provide excellent forage for bison. Triangular-stemmed sedges actually contain more protein than alfalfa hay, providing excellent nutrition for a bull, which at 2,000 pounds, can consume over 45 pounds a day. During mating season in late summer, it is interesting to watch bulls establish their dominance by charging each other, butting heads, and bellowing. The bulls also wallow in the dirt (F) during mating season as a display of strength.

Throughout the park, there are thousands of trees with missing bark. The majority of this is caused when bison use trees as scratching posts. Elk also use trees for scratching, while bears create territorial scent marks by clawing and even biting trees.

**HIKING:** Six road miles north of Fishing Bridge, a three-quarter mile loop trail features Mud Volcano, Dragon’s Mouth Spring, Churning Caldron, and Black Dragon’s Caldron. “Parking Lot Pool” began in 1999 when steam appeared through the pavement.



Trout fishing in the Yellowstone River  
is some of the best in the park.