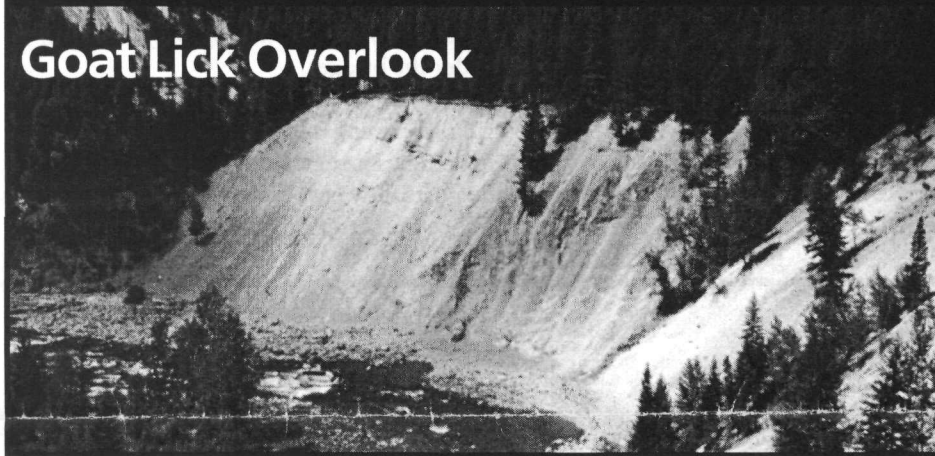




Goat Lick Overlook



Located along U.S. Highway 2, approximately two miles southeast of the Walton Ranger Station, is an exposed riverbank where mountain goats and other animals come to lick the mineral-laden cliffs. From the parking area, a short paved path leads to an observation stand overlooking the waters of the Middle Fork of the Flathead River. The river's current has cut deeply into the easily eroded soil in this area, creating steep drop-offs and exposing a mass of gray clay containing minerals sought after by mountain goats and other animals. There are several other natural mineral licks in the park, but probably none that receive as much use by goats as this one.

The Goat Lick is an exposure of the Roosevelt Fault and is comprised of gypsum, kieserite, and sulfates. The shift to succulent green vegetation each spring alters the goats' mineral balance and may cause them to seek the minerals found at the Goat Lick. Calcium, potassium, and magnesium plus lesser quantities of sodium and phosphorus found in the lick may help replace the elements goats typically lose from their bones during the winter. Additional explanations for visits to the lick include: an acquired taste for salts; a need for the minerals as a digestive aid; and the high goat concentrations, which may allow for more intensive social interactions.

Movements to the Mineral Lick

Glacier National Park goats travel as far as four miles to get to the Goat Lick, while others from more widely dispersed areas in the Flathead National Forest travel several times that distance. April through August are the most concentrated use periods, although use may occur year-round. During late June and July, dozens at a time may gather here. Mountain goats from Glacier National Park

and the adjacent national forest use the lick. Elk and deer may be attracted to these natural minerals.

Young mountain goats learn the route from the older animals. Most of their travel occurs on established trails. One well-worn goat trail traverses the crest of Running Rabbit Mountain and down the slope to the Goat Lick.

Use of the Goat Lick

The animals focus their activity at wet seeps on the lick where more minerals are carried in solution. Mountain goats are crepuscular in nature, and daily use of the lick tends to occur most frequently during twilight spans of dawn and dusk. A goat typically licks for a total of 24 hours, in 4-6 hour durations, on its first seasonal visit to the site. After the first day, more time is spent in feeding and bedding. Because individual goats compete for the best licking area, aggressive interactions are common on the lick. Watch for threatening horn swipes and rushes. The social ranking of goats serves to reduce direct conflict which, due to the sharpness of their horns, could result in serious injuries. At the lick, adult males (billies) and females (nannies) with kids share a position of near equal dominance, followed by barren nannies, subadults, and yearlings. On the range, however, adult billies often appear to be subordinate to nannies with kids.



What To Watch For

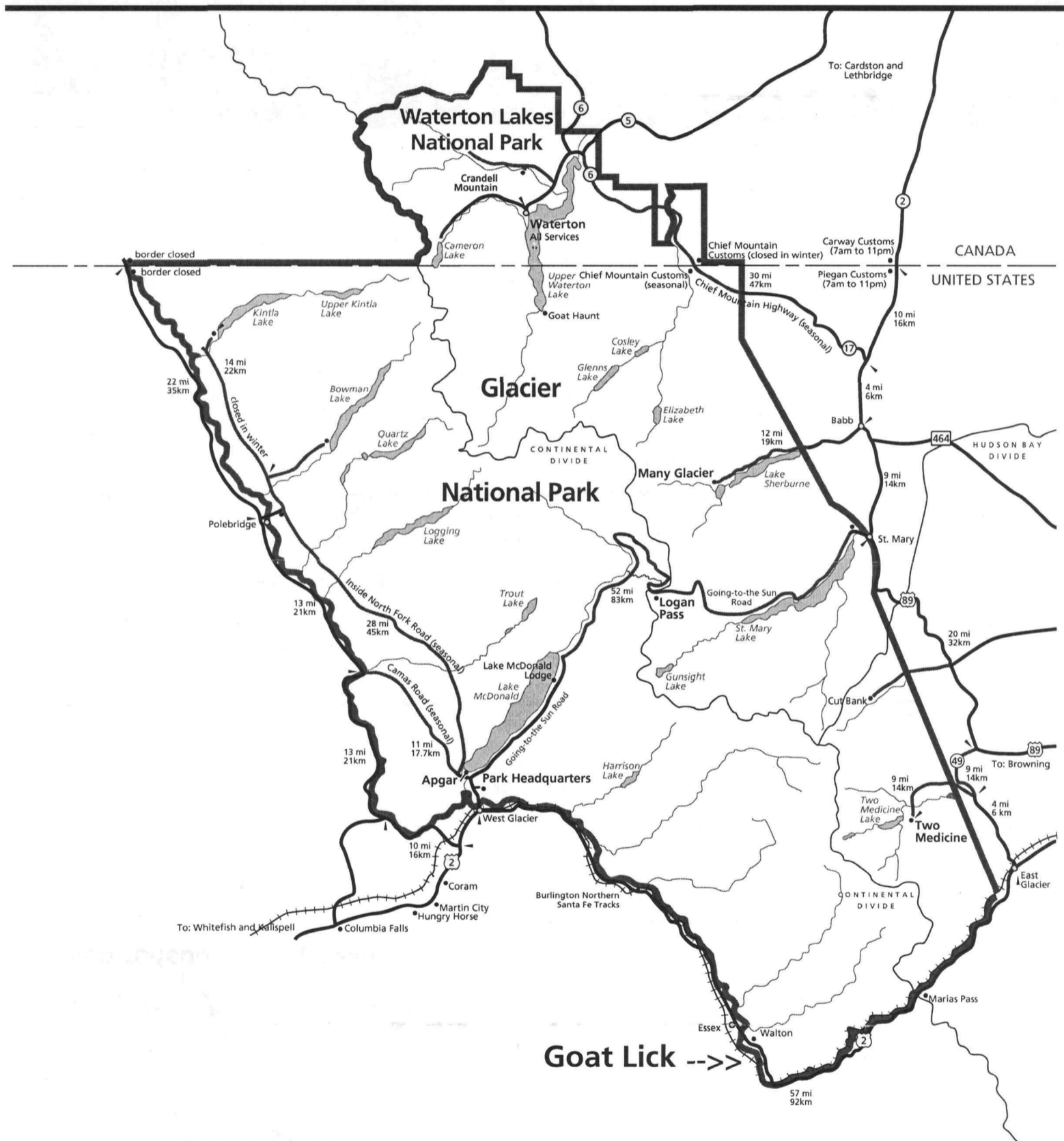
- Aggressive encounters between goats on the lick.
- Occasional accidental or confrontational falls into the river. Groups sometimes swim the river to reach the lick.
- Groups traveling to the lick in the evening. Elk and black bear are also occasionally seen on the slopes at dawn or dusk.
- Subtle differences in appearance between billies and nannies. Look for the slightly thicker and more gradually-sweeping horns of the billies.

Highway Crossing and Goat Management

From 1930 to 1979, mountain goats arrived at the Goat Lick by crossing the highway at six locations along a 700-foot section of road. Slow automobile speed on the narrow, winding road kept yearly mortality rates low. However, about 100 near-collisions were estimated each year. The goats partially adapted to the highway situation by arriving at dusk and departing at dawn, which brought them into the highway area during low vehicle-use periods. When the Federal Highway Administration proposed reconstruction of this segment of U.S. Highway 2, in an attempt to increase vehicle speeds, concern developed about the

potential impact on mountain goats crossing the highway to the lick. A plan to protect the goats was devised, which also satisfied the needs of visitors and traffic. The plan included: moving the visitor viewing site from the crossing area to an overlook; the construction of a bridge for the goats to pass under; and fencing above the highway to funnel goats under the bridges.

In February of 1979, an avalanche swept away the 1930 bridge spanning this gulch and prompted reconstruction. The new bridge was completed in 1980 and goats now pass under the highway without interference from traffic or visitors.



Effects of Management

Bridges or crossing structures have been built for animal crossings in only a few instances. Design has been shown to be critical to the success of an underpass. The Goat Lick and U.S. Highway 2 crossing area underpass is an important experiment in wildlife management.

Researchers monitored the road-crossing area to determine the success of the management actions. Research found decreased hesitation time before entering the crossing structure, and fewer separa-

tions of kids and nannies. Also, goats traveled to the lick at all hours of the day. These are indications that the goats became more comfortable with this road-crossing design after 1980.

Increased use by goats of a mineral lick on Forest Service land has been documented. The Forest Service Lick or Sheep Creek Lick is located across the river from the Goat Lick Parking Area. Goat use on that lick may equal or exceed use on the bigger main cliff on the park's side of the river (Goat Lick).