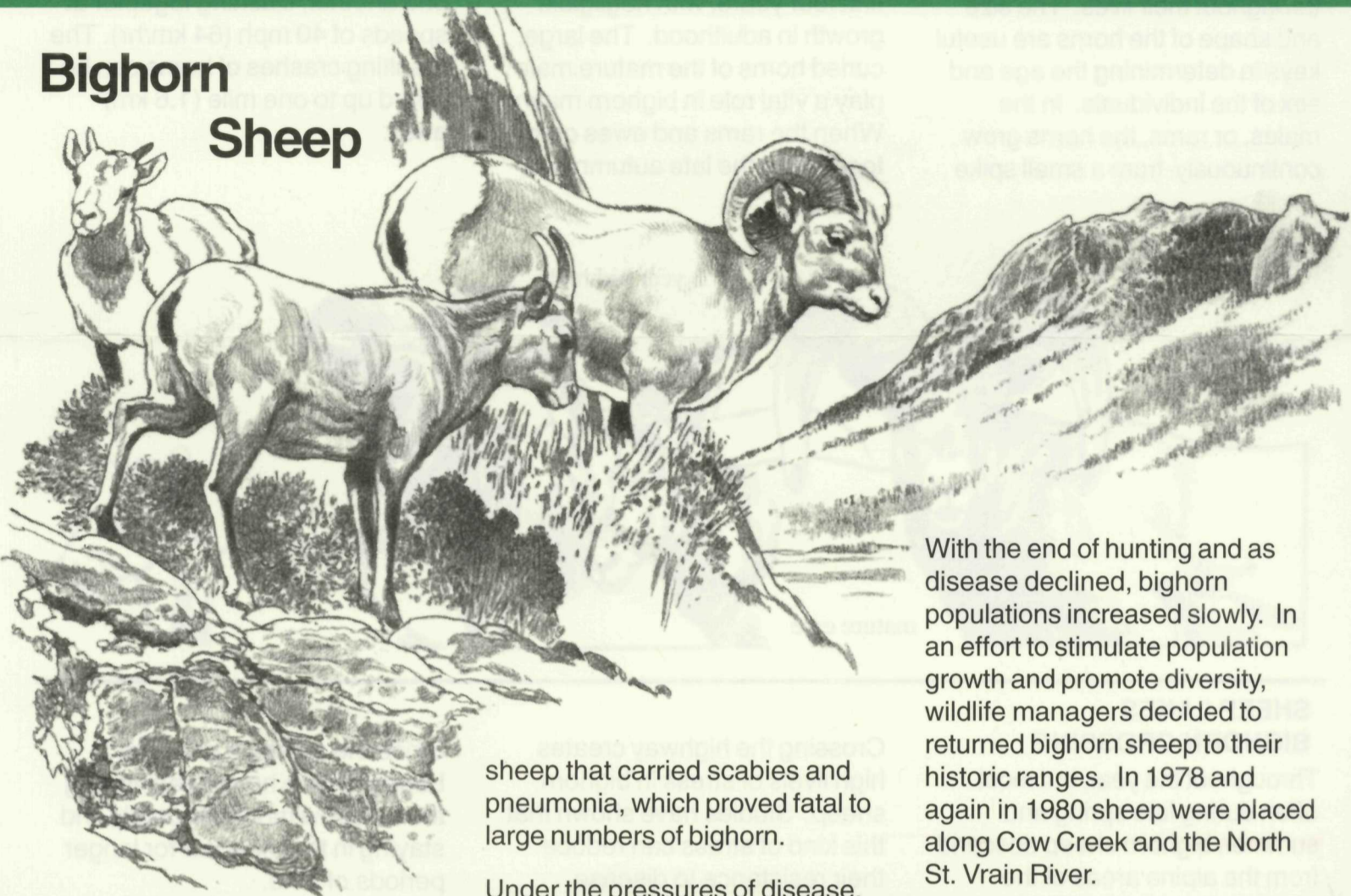




Bighorn Sheep



The recent history of bighorn sheep in Rocky Mountain National Park is a dramatic story of near extinction and encouraging recovery. In the mid-1800's, the population of bighorn in the area numbered in the thousands. Then market hunters, motivated by the high prices for the meat and the prized horns, shot bighorns by the hundreds. In the late 1800's ranching moved into the area and important bighorn habitat was lost. Ranchers introduced domestic

sheep that carried scabies and pneumonia, which proved fatal to large numbers of bighorn.

Under the pressures of disease, hunting, and habitat loss, the bighorn population declined until research in the 1950's indicated that about 150 bighorn remained in the area of Rocky Mountain National Park.

The surviving bighorn herds were in areas remote from human contact: the Mummy and Never Summer mountains and along the Continental Divide. Migrating low-country herds were gone.

With the end of hunting and as disease declined, bighorn populations increased slowly. In an effort to stimulate population growth and promote diversity, wildlife managers decided to return bighorn sheep to their historic ranges. In 1978 and again in 1980 sheep were placed along Cow Creek and the North St. Vrain River.

These new herds of bighorn along the eastern boundary of the park and the surviving native herds have continued to grow. By 1999 it is estimated that approximately 600 bighorn sheep live in Rocky Mountain National Park.

BIGHORN ADAPTATIONS

Bighorn Sheep are well adapted to survive in the rugged terrain and harsh climate of the Rocky Mountains.

Their keen eyesight, highly developed sense of smell, and sharp hearing enable bighorn to detect potential dangers at great distances.

Specialized hooves, soft and flexible on the inside, aid sheep in precarious jumps and breath-taking climbs on sharp cliff faces,

as they seek shelter and escape from predators in their rocky habitat.

To survive the bitter winds and chilling temperatures of winter, bighorn sheep have developed thick, double-layered coats of hair. These rich, tan coats, which grow anew late each summer, are shed in spring.

The digestive system of bighorn sheep is an unseen, but nonetheless essential, survival mechanism. In the initial phase of digestion, sheep benefit from teeth which grow throughout life,

grinding down coarse, dry grasses and grit, without being worn down themselves.

A complex, four-part stomach allows sheep to gain important nutrients from hard, dry forage. Sheep are able to eat large amounts of forage rapidly, then retreat to cliffs or ledges to thoroughly rechew and digest their food, safe from predators.

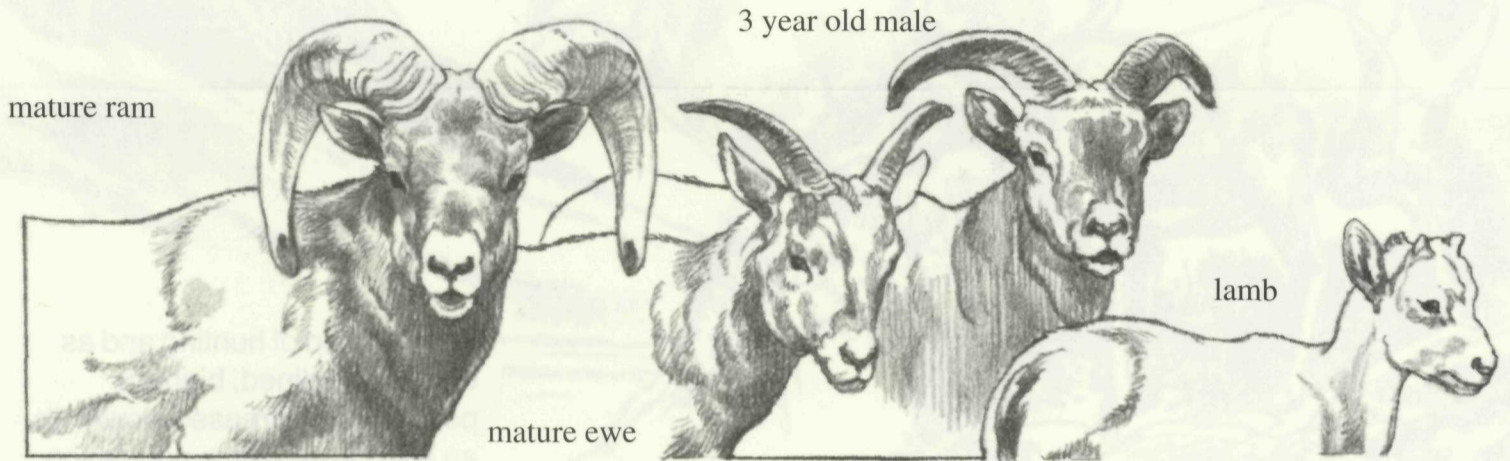
Bighorn sheep, with their unique and spectacular combination of adaptations for mountain survival, are a fitting symbol of Rocky Mountain National Park.

HORNS

Both male and female bighorn sheep have true horns. Unlike antlers, which are shed yearly, sheep retain their horns throughout their lives. The size and shape of the horns are useful keys in determining the age and sex of the individuals. In the males, or rams, the horns grow continuously, from a small spike

as lambs, to nearly a full curl at around eight years of age. The horns of the females, or ewes, grow to a sharp, straight point, eight to ten inches long, in their first four years, with negligible growth in adulthood. The large, curled horns of the mature male play a vital role in bighorn mating. When the rams and ewes come together in the late autumn and

early winter breeding season, the strong, dominant rams with the largest horns vie for the right to mate with the females. As part of the mating ritual, males charge one another, clashing together at speeds of 40 mph (64 km/hr). The resulting crashes of horns can be heard up to one mile (1.6 km) away.



SHEEP LAKES

BIGHORN CROSSING

Throughout the year, but most often during late spring and summer, bighorn sheep descend from the alpine areas of the Mummy Range into the meadows of Horseshoe Park around Sheep Lakes. They visit only during daylight hours. They graze and eat soil to obtain minerals not found in their high mountain habitat. They need to restore essential nutrient levels depleted by the stresses of lambing and a poor quality winter diet. To reach the meadows, the sheep must cross Highway 34 on the north side of Horseshoe Park.

Crossing the highway creates high levels of stress in bighorn sheep. Studies have shown that this kind of stress can reduce their resistance to disease, thereby increasing sheep mortality.

In an attempt to protect the sheep, the park has created "Bighorn Crossing Zones" in Horseshoe Park. In the late spring and throughout the summer, rangers and volunteers are on duty at the crossings to control traffic when sheep attempt to move to and from the meadow.

Since the crossing program began, sheep have been visiting the meadow more frequently and staying in the meadow for longer periods of time.

Researchers believe this has increased the intake of important minerals by the sheep, thus improving their health and the production of lambs.

BIGHORN WATCHING

Groups of from one to sixty sheep move from the ridge on the north side of the Horseshoe Park valley, across the road and into the meadows. Often they stay two or three hours before recrossing and moving back to the high country. However, the presence of coyotes or human interference can force the sheep to return to the safety of the rocky ridges above Horseshoe Park.

To witness the sheep in their alpine range, a short but strenuous trail near Milner Pass leads to the edge of The Crater,

where sheep may be viewed from a distance. This trail is closed during the spring lambing season in May through mid-July. The closure is necessary so sheep can move to and from The Crater to the feeding grounds of the alpine tundra.

Occasionally, visitors may also see bighorn sheep in alpine habitat along Trail Ridge Road, between Forest Canyon Overlook and the Alpine Visitor Center.

Because bighorn sheep are sensitive to human disturbance, visitor help in protecting the sheep is essential.

Please . . .

- Drive slowly and cautiously on all park roads;
- When sheep are present., allow them ample space to cross the road;
- Stay by the roadside when viewing sheep;
- Obey all signs and closures and instructions from rangers and volunteers;
- Do not attempt to approach sheep or make loud noises in their presence.