

## Bighorn Sheep (*Ovis canadensis*)



### **Key to Identifying:**

Males have spectacular massive spiraled brown horns that curl back and down close from the head. Two sub-species are present in British Columbia:

- The **California Bighorn Sheep** (*Ovis canadensis californiana*) inhabits the south-west interior of British Columbia and extends southwards of the east side of the Coast and Cascade ranges into Northern California.
- The **Rocky Mountains Bighorns** (*Ovis canadensis canadensis*) are found in Canadian Rockies and southward along the main chain of the Rockies to New Mexico.

### **Biology:**

California and Rocky species look similar but the former is slightly darker and the rams have horns that flare outward more. The horns continue to grow throughout the sheep's life, but grow slower in the winter. This lets people see out the ram's age by counting the lines. Both sexes have brown horns but the female's are short and do not curve around as impressively as the male's. Ram's horns can be as long as 130cm around the curve and as thick as 40 cm around the base.

Adults rams stand about 1m high at the shoulder and usually weigh 90 to 140 kg. Ewes are about the two thirds the size of rams. They have concave hooves with rough footpads that allow them to climb on rocky terrain.

Breeding season occurs between early November and mid of December and lambs that weigh 3 to 5 kg are born from the last week in April to early June. Lambs grow fast during the summer and weigh about 30 kg in autumn and are weaned by October. Most Ewes breed when they are 2 years old. Physiologically, rams can breed at the same age but they usually have to stay on the sidelines until they are 7 or 8 years old.

50% of the lamb die from starvation, predation, accident and disease in their first year. Cougars and Coyote are the primary predator of Bighorn Sheep and can seriously reduce the size of the herd. Bighorn Sheep are frequently contaminated by domestic sheep disease and the Rocky Mountains species is susceptible to contract pneumonia every 20 years. Bighorn normally live 12 or 14 years and the oldest sheep ever recorded was 20 years old.

### **Food Diet:**

Bighorn Sheep are suited to rugged mostly treeless terrain, to foraging sites with low-growing grasses to regions with shallow snow cover. Thus they occur in driest climate and on the south to south-west

oriented mountains.

Bighorn sheep spend usually winter on low-elevation bunchgrass ranges, ponderosa pine and Douglas fir zones. They graze cured grasses as fescue and bluebunch wheatgrass, which are key species on most winter range. A few herds of the Rocky mountain Bighorn Sheep spend winter in windblown alpine ridges.

In spring, they move at a higher elevation to graze plants in their most nutritious early growth stage. June grass and the half-shrub pasture sage are important in early spring. On alpine summer ranges, they eat a variety of grasses and sedges, together with herbs such as lupine and the tender new leaves of willows and other low shrubs.

### **Behaviour:**

Bighorn sheep usually travel by groups of 5 to 20 and occasionally up to 100. Ewes and rams occupy different ranges during most of the year. Old ewes are taking care of different nursery group composed by lamb and yearling. Locations of the seasonal ranges are learned by associating with the older and experimented sheep.

Ram groups have a well developed social rules and dominance hierarchy. The sheep with the biggest horn is usually the boss. Males with similar horn sizes, battle amongst each other for breeding privileges in a face-off- fight. Facing each other from a distance, they run towards each other with heads lowered, rearing up and crashing their horns together.

### **Management Arguments:**

Resulting from over-hunting, disease and parasites contracted from domestic sheep and grazing competition with domestic cattle, Bighorn Sheep populations were at low ebb in the early 1900s.

Until the 50s, hunting was closed or very restricted, allowing the Bighorn Sheep populations to increase. But the ranges were still in poor condition. In the 70s, government agencies supported by sport-hunting groups initiated the first significant habitat management program.

Nowadays, many ranges are reserved and managed for the benefit of Bighorn Sheep. However, the two species are still considered at risk. One of the major concerns today is the fragmentation of habitat and the preservation of migration corridors. Winter ranges still have to be protected from livestock grazing practice and burning practices.

