

Dall's sheep

Ovis dalli dalli

Classification

Is in the same genus, *Ovis*, as the bighorn sheep found in the Rocky Mountains. There are two subspecies of Dall's sheep.

Class: Mammalia
Order: Artiodactyla
Family: Bovidae
Genus: *Ovis*
Species: *dalli*
Subspecies: *dalli*

Distribution

Dall's sheep is distributed throughout Alaska, the Yukon, Northwest Territories, and the northwest part of British Columbia.

Habitat

Open alpine ridges, meadows and steep slopes, usually almost entirely above timberline in dry mountainous regions.

Physical Description

- The average height at the shoulder is 37 inches (94 cm).
- Males weigh 160-200 pounds (73-90 kg) with some large rams exceeding 250 pounds (113 kg); females are smaller weighing on average 100-110 pounds (46-50 kg).
- Dall's sheep have thick, nearly pure white fur.
- Males have thick curling horns measuring up to 34 inches (86 cm) from tip to tip.
- Females have shorter, more slender, slightly curved horns.

Diet

What Does It Eat?

In the wild: In summer they eat a variety of plants. In winter their diet is more limited – primarily dry frozen grass and sedge stems, lichen and moss. They also visit mineral licks during spring.

At the zoo: Hay, alfalfa, grain, vitamin and mineral supplements, carrots and apples for treats.

What Eats It?

Wolves, coyotes, black bears, grizzly bears prey on Dall's sheep. Golden eagles can prey on the young.

Social Organization

Adult herds consisting of females and young, range from five to 100 individuals. Males live in bachelor herds ranging from two to 15 rams, and seldom associate with females except during mating season in the fall. Rams establish a dominance hierarchy based on horn size. Butting contests can determine breeding rights and herd dominance between rams with similar sized horns.

Life Cycle

Rams are sexually mature at 18 months, but don't mate successfully until 5-7 years of age. Females are sexually mature at 30 months and will often not have their first lamb until age 3 or 4. Lambs are born in late May or early June after a gestation of about 171 days. Ewes leave the herd to give birth on secluded cliffs that provide lambs with shelter from the weather and protection from predators. Newborn lambs weigh seven to nine pounds (3-4 kg). The lambs can walk within a day and are sure-footed enough to climb steep terrain with ease by the time they are a week old. Lambs are weaned after three to five months and nibble on vegetation within a month. They stay close to their mother for the first few weeks but gradually become more independent and mix with other herd members. Female young stay with the herd. At about three years of age, young rams leave female groups and join bachelor groups. They are capable of reproducing throughout their lives. Dall's sheep may live 15-16 years in the wild and longer in captivity.

Adaptations

Growth Rings

The horns of the male Dall's sheep are thick and grow continuously throughout life forming a complete circle by the age of eight. Horns can weigh up to 22 pounds or up to 10% of the sheep's total body

weight! Horns grow during the spring, summer and early autumn when food is plentiful and then growth stops during winter. As growth starts and stops it results in a pattern of rings on the horn that can be used to determine age.

Shock Absorbers

Male Dall's sheep have thickened skulls that allow them to absorb the impact of dominance battles. To establish dominance, two males with similar sized horns will back off about 12 yards (11 meters) then run toward each other colliding headlong with a loud crash that can be heard over half a mile away. The stronger sheep establishes dominance after several crashes and the two sheep usually separate unharmed. Such dominance battles establish leadership within the bachelor groups as well as breeding rights during the rut.

Get a Grip

The hooves of the Dall's sheep are hard on the outside edges with a softer, spongy center that provides traction and grip on steep rocky terrain. Split hooves also allow them to quickly ascend or descend steep slopes to evade predators.

Bundle Up for Winter

Dall's sheep have a fine wool undercoat covered by long, stiff guard hairs. In winter the coat can be two inches (5 cm) thick. The sheep molt in late spring shedding their heavy winter coat. The white or cream-colored fur helps to camouflage the sheep against their snowy, rocky habitat.

Conservation Connection

IUCN Status: Lower Risk-Least Concern.

Dall's sheep are rare but not endangered. Most of their range is remote and uninhabited but they are at risk because they are adapted to a limited habitat that is becoming fragmented. They are threatened by trophy hunting and subsistence hunting as well human activities including mineral exploration and road construction.

Fun Facts

- Dominant rams expend a lot of energy during dominance battles and breeding season. Because they enter the difficult winter season with lower reserves, most dominant rams have a shorter lifespan than less dominant rams.
- The winter diet of Dall's sheep is determined by the accumulation of snow. They find food in areas where snow has blown off vegetation.

