ON THE COVER

OVIS CANADENSIS

BIGHORN

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Except for the Argali of Asia and eastern Europe, the North American bighorn sheep is the largest and most majestic of the world's wild sheep. This species survived the glacial periods south of the glaciers in western North America with the majority of its original range in the western U.S., but they also occur along the western portion of Alberta and in the southeast corner of British Columbia. The other species of North American sheep, the Dall's - Stone's complex occurs from central British Columbia north to the Brooks Range in northern Alaska. The ranges of the two species don't overlap. The great interest in the North American sheep stimulated the Boone and Crockett Club to sponsor a symposium in 1974 to which sheep biologists from all of the western states and provinces contributed. Biologists of the game departments of states and provinces, as well as research programs in colleges, continue to meet and publish their most impressive findings in a biennial volume. Except for the whitetail deer which occurs over much of the continent, more scientific studies of wild sheep have been carried out than any other big game species.

The bighorn is regarded as the most social of our big game animals with ewes, lambs, and yearlings living in herds throughout the year and typically the rams in herds often segregated by age. The breeding season, primarily in November, is characterized by vicious fights between rams seeking to iso-

Left: Rutting ram performing lip curl after checking the urine of an estrous ewe.

late the receptive ewes. Much has been learned of this breeding season by several detailed and thorough studies during the past 20 years. Although there is not the space here to summarize these studies in detail, we now know that the old idea that one singular mature dominant rams was able to impregnate virtually all the ewes in the herd is not what actually happens. Vigorous, younger, more agile rams are able to alter this activity and they too contribute to the gene pool.

The single lambs are born in May or June and they are subject to high mortality during their early days, much due to predation. We also now know that the sociable ewes will nurse lambs not their own. Formerly we knew that ewes produce their first lambs at three years of age, but now know that in healthy herds many ewes have their first offspring at two years.

Wild sheep are particularly susceptible to disease and management efforts are designed to study intensively disease outbreaks which may result in severe die-offs. Virtually all bighorns are afflicted with lung worms, tiny nematode parasites, that live in the lungs and produce lesions which healthy sheep are able to tolerate. These worms pass through land snails as their intermediate hosts. Pneumonia and other bacterial and viral diseases are serious problems in sheep management and are often associated with high levels of lung worms. These diseases may spread rapidly amongst the individuals causing severe die-offs, which may in unusual cases decimate the entire herd. The die-offs are being intensively studied in the states and provinces where they may occur. Montana sheep biologists are currently involved with the use of medicated salt blocks on the sheep range where an outbreak is in progress. It is too early to tell how successful this effort may be, but the results seem to be promising. The precise cause of the die-offs may differ markedly from one case to another. It is also known that bighorns may acquire diseases by contact with domestic sheep. Disease outbreaks are more apt to occur in over-populated herds and management by the game departments has also centered around keeping the herds at reasonable levels by removal of both ewes and rams by hunting or by capturing and transplanting the excess animals elsewhere.

Although typically living at high altitudes during the summer, bighorns descend to lower elevations during the winter where much of their winter range has been grazed by domestic animals. The numbers of bighorns declined sharply during the settlement of the west. In addition, many of the various herds have been geographically isolated which has resulted in lower genetic variability. The Game departments of the western states and other big game biologists have devoted great effort to restore them to former numbers. No state has been more successful in reestablishing bighorns than Montana and of the some 20 different populations now being hunted here, no less than 10 of them are from these herds. All of the biggest rams taken in Montana during the 22nd Awards Period just completed were from transplanted herds. In future issues of this magazine we will attempt to look in more detail into aspects of the management and biology of this remarkable animal.

LEFT: A DOMINANT RAM TOWERS OVER A SUBORDINATE RAM.

MINIMUM SCORE

Awards Records Book
175 points

All-Time Records
180 points

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TOP FIVE BIGHORN

208-1/8 ▲ Clarence Baird
Blind Canyon, Alberta
1911

207-2/8 ▲ Martin Bovey
Oyster Creek, Alberta
1924

206-3/8 ▲ Gordon Magnussen
Burnt Timber Creek, Alberta
1955

204 ▲ Am. Mus. Nat. History
Sheep Creek, B.C.
1920

202-2/8 ▲ Unknown
Panther River, Alberta
1918