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BONE CHEWING BY ROCKY MOUNTAIN BIGHORN SHEEP

K. A. Keating¹

Bone chewing has not, to my knowledge, been reported in wild North American bovids. Herein I describe an instance of bone chewing by a Rocky Mountain bighorn sheep (*Ovis canadensis*). An adult female consumed two bones on Mt. Evert's winter range in Yellowstone National Park during winter 1980–81. The bones apparently were from a small ungulate, probably bighorn sheep, mule deer, or pronghorn antelope. The first bone was consumed in 5–10 minutes; I interrupted consumption of the second. Sekulic and Estes (1977) report that sable antelope frequently spend ≤ 1 hr chewing a bone and described a case of a yearling male chewing on the same bone for 5.5 hr. The rapid consumption observed here was likely related to the weathered, brittle condition of the bones. Sekulic and Estes (1977) also report at least two instances in which bone possession by sable antelope led to aggressive displacement of younger animals by adult females. During my observations, several other bighorn sheep continued to feed nearby but showed no interest in the bone. Bone chewing was observed during the second of two unusually mild winters in which forage was generally free of snow and range use by elk was minimal. Indices of population quality are believed to reflect the nutritional status of a population (Geist 1971). In this study, high young:adult

female ratios, long suckling times, male maturation rates, and low concentrations of lungworm (*Protostrongylus* spp.) larvae in bighorn feces were all indicative of a high-quality, expanding population (Keating 1982). This suggests that bone chewing was not a result of general nutritional deficiency in the population, though deficiencies in individual animals or in specific dietary components cannot be discounted.

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