

## MOVEMENTS OF BIGHORN SHEEP IN WESTCENTRAL MONTANA<sup>1/</sup>

By  
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A study was conducted in the Sun River area of westcentral Montana during summer and winter to obtain quantitative data on the daily and seasonal movements and range use habits of bighorn sheep. This paper also presents data collected during the fall of 1972 and spring of 1973 by Mike Frisina (M.S. Thesis Montana State University, Bozeman).

Vegetation was classified as to seven major habitat types, of which five were extensively studied.

Sex and age composition of the herd was determined from 5,165 observations. Numbers per 100 ewes for rams, lambs and yearlings were 45, 55 and 37 in summer and 27, 40 and 23 in winter, respectively. Group constancy, as determined from the analyses of 326 associations of marked bighorn sheep, indicated there was no great attraction between any two individuals.

The winter home range for each of 41 marked bighorn sheep was determined by using the center of activity and standard diameter. Pooled standard diameters in each of the three wintering areas were 1.48, 1.56 and 1.37 miles.

The summer distribution from the three wintering areas was described from relocations of 31 marked animals. Distances between consecutive relocations averaged .67 and 1.78 miles in winter and summer, respectively. Throughout the spring period bighorn sheep confined their movements within the winter concentration areas. Distances between consecutive relocations on the fall range were much larger than any of the other seasons, ranging from 0-12.50 airline miles and averaging 2.00 airline miles.

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