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Carrying Capacity of Summer Elk Range James E. Guest Division of Plant Sciences University of Wyoming Project Number 171

A study was initiated in the spring of 1969 to evaluate the carrying capacity of summer elk range in Teton County, Wyoming. Data collection for the first two years of the study was primarily associated with type classification, animal numbers, use patterns, and forage production and utilization.

The area studied included all summer elk range in Teton County with emphasis placed on the Huckleberry Ridge area. This area was selected because of logistic reasons and provided essentially comparable resources to other areas of summer elk range. Management decisions concerning the Huckleberry Ridge area could in effect be employed for similar summer range.

Survey trips were made to the area during May of 1969 and early June of 1970 to study elk migration and numbers as well as their effect on the early spring flora. This was followed by type classification mapping and unit measurements from aerial photographs. Animal numbers and use patterns were studied by sightings, tracks, and pellet groups. Forage production was achieved by use of a square foot microgrid placed at random on various types seen previously to be extensively used by elk. A double sampling procedure was employed in conjunction with the microgrid which estimated individual species weight. Utilization percentages were also estimated at the same time the other sample measurements were made.

During the summer months of 1969 and 1970 approximately 3,000 samples were taken to determine utilization and production. The area was also typed and classified and observation notes were kept on animal numbers and their pattern of use. Sample results are currently being compiled and analyzed and are to be presented in a Ph.D. thesis. The final results of the study should be available by the first of March, 1971.

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