

-4-

Control observation and repeats on last year's data have strengthened the evidence for many findings and yielded comparisons with other ungulates. The most startling fact emerged that the moose has phases of very contrasting behavior types. Social and solitary, cooperative and aggressive behavior phases all in one year's cycle. On the basis of these findings work is continued at a high intensity. The change of the original research program to permit continuation of this project into the fall and winter situations is therefore highly appreciated.

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Ecology and Behavior of the Yellow-bellied Marmot  
(*Marmota flaviventris*)  
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#### Ecology

Several marmot colonies were visited in the Teton Mountains for the purpose of making a subjective analysis of habitat selection. All of the colonies were centered on the south facing slopes where there was grass and sufficient talus to provide burrow sites. All sites which have been visited in the two years of study have been located where the snow is likely to melt comparatively early, where there are food plants, and where there is something (boulder, cabin, fallen tree) to burrow under.

#### Melanism

Several sites where melanistic marmots are found were visited to determine the relative abundance of the melanistic form. They averaged about 25% of all the animals which were observed during the visit.

#### Population and Behavior

The adult population at the colony site decreased by one third between 1955 and 1956. There were forty-five young in 1955 and nineteen in 1956. The sex distribution in the young of 1956 showed nine males, five females, and five undetermined. In the two years of study, sixteen adults have been identified and all of them were females. Only one adult marked in 1955 was recovered in 1956.

Female 524 changed her home range in 1956 from the observed home range in 1955. The home range pattern during the summer was essentially of the same nature as in 1955. However, during the



-5-

period that the animals were going into hibernation, the home range pattern broke down and several animals visited areas where they had never been seen previously. Dominance relationships between individuals also broke down during this period.

During the summer, observations further substantiated the previous observations that some animals are dominant to others, but no "peck" order has been distinguished. Female 524 had dominated the adults at two burrows in 1955, but in 1956 ignored those sites, but added a different burrow north of the previous ones and by her aggressiveness, caused a small adult to abandon the new burrow.

Several postures were described and photographed: two sunning postures, a standing and sitting alert posture, a greeting posture, dominant and recessive postures, and two forms of locomotion.

Some of the calls were tape recorded, but this project must be pursued further.

Considerable data on the summer movements of the young were collected. The young still tended to maintain their family groups by late August. This was evident when the young first emerged in the morning. During the day the groups tended to disperse.

Temperature data for 1955 and 1956 indicate a gradual rising of the temperature through July and a drop in early August. The latter might be the stimulus for hibernation for those animals physiologically prepared.

Among others future study should include factors which initiate hibernation, population changes, movement of the young in early summer, analysis of calls, and individual relationships.