

SUMMARY OF RESEARCH PROJECTS CARRIED OUT IN 1956

A Study of Social Behavior Patterns in Moose of Wyoming Dr. Margaret Altmann Project Number 77

The project in its second summer was carried out according to plan from May 21, 1956 to September 5, 1956 at the Research Station. The resulting data and material were highly satisfactory. Moose individuals as well as moose groups were found to be well within reach. The information from previous research years made it possible to save much time and effort in locating suitable moose cases for observation. Because the principal investigator was able to be present earlier than expected in the moose habitat it was possible to observe moose just before, during and after parturition. The various stages of calf rearing and integration into social patterns could be followed in detail.

During this season the marking of moose was purposely discontinued in order to prevent behavior disturbances. Recognition of individuals was possible in most cases by an improved method of observation and record keeping. The head features, in particular the "bell" and dewlap provided a good marker for individuals. A new Bausch and Lomb Balscope Sr. (30X) made it feasible to observe details at long distance from vantage points at will.

Among the results of this summer's investigation are some findings on "sliding territoriality" of the moose cow with a calf. It became apparent that the defense of a zone around the calf is practiced by all moose dams. This defense reaction is in most cases one of gesture threat, not an actual fight. The ears are folded back, the head is raised to level it with the neck and the front feet are stamped. The reaction of the intruding moose was, even if it was a large, powerful bullmoose, a hasty detour in small steps with slightly folded back ears. No attempt to fight or retaliate was seen. The extent of the defense area was decreasing toward fall. Current observations are conducted to trace the extinction or transformation of this reaction at the onset of the mating season.

An interesting sidelight on variations of behavioral patterns was provided by a young moose cow in a tourist area of Yellowstone Park. The investigator stood silently in cover observing this moose, when it showed distinct signs of alarm and flight. A few moments later three cars with noisy tourists (14 people) stopped, unloaded and approached the animal without cover. The moose recovered composure, walked back close to the highway and resumed grazing. Careful approach was in this case the aggression, noisy approach the harmless event.

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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.

(Grant from National Science Foundation.)

Ecology and Behavior of the Yellow-bellied Marmot

(Marmota flaviventris)

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Project Number 82

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