

Dominance relationships in female groups of semi-domesticated reindeer: changes after antler removal.

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Abstract: The study of dominance relationships and effects caused by antler removal was made for reindeer hinds in Kaamanen Reindeer Research Station in winter 1989–90. A total of 24 pregnant hinds were divided into equal three groups and placed into corrals. Several body and antler measurements were taken from hinds. The division of the groups was: Group 1, control, antlered during the whole study; Group 2: antlers were removed at the same time; Group 3: antlers were removed separately according to the rank order. During the study the hinds were weighed weekly and daily feed consumption was measured. The social rank order of the groups was evaluated during intense observation before and after antler removal.

The rank order differed from ideal straight-line organization in the groups and there emer-

ged more complicated links in dominance. The dominance of hinds was explained best by the age, body weight and size of antlers (weight and height). When the hinds gained weight in abundant feeding the relation between dominance and body weight disappeared. Body structure was a determining factor in fights between hinds of same weight and antler size. Hinds of heavier body build were higher in rank order. No dominance changes were noticed in the antlered groups. The dominant hinds lost part of their status, while some hinds earlier lower achieved higher rank order. Age of hinds explained dominance in the deantlered groups, but body weight had no effect. Body structure was again a determining factor in fights between deantlered hinds.