

SOCIAL AND SPATIAL STRUCTURE OF ‘KONIK POLSKI’ HORSE GROUPS AT ĶEMERI NATIONAL PARK. FIRST RESULTS

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With restoration of floodplain system of river Slampe, large herbivores (‘Konik Polski’ horses and Heck cattle) were introduced in Dunduru meadow located at Ķemeri National Park. Both horses and cattle are used for natural floodplain meadow recovery and maintenance, as well as a “tool” for increasing biological diversity. A lot of studies in European countries have been made about effects of grazing by large herbivores on grasslands, but only few about the behavior and social structure of these semi-feral animals, including horses. Certain dominance hierarchy is mostly important in groups of horses. Knowing the social structure of horse groups is essential for cases, when total number of animals has almost reached the site’s maximum and some of them are needed to be transported elsewhere.

During this study, three groups of horses (total 20 individuals) were researched from three aspects: 1) individual ranking and linearity of dominance hierarchy, 2) association of individuals within the group and 3) spatial structure between groups. The collection of data was done in two sessions: from 21th to 30th of August and 31st of October to 06th of November (total 79h for nearest-neighbor and 93h for GPS data).

Observations were made from watchtower using telescope and binocular in daylight between 9.00 and 19.00. Each individual was identified by special and unique marks. GPS data for every group location were collected every hour using Androzic application. 1st and 2nd nearest-neighbor for each group member were recorded every 10 min; however aggression-submission behaviors were recorded using *ad libitum* sampling (Lehner 1996).

Results of this study give an insight on how all three aspects of this research differs among groups of varied individuals and social structure. Both spatial structures between group individuals and between groups showed impression of season change. In spite of previous stated hypothesis no territoriality was expressed.

Reference

Lehner P.N. 1996. Handbook of ethological methods (2nd ed.). Cambridge: University Press, pp. 672
