

Reproductive behavior of farmed female and male American mink (*Neovison vison*) based on observations of video material from cameras placed in cages

M.Sc. Aleksandra Maria Wojciechowska

### **Abstract**

The objective of the study was to observe and analyze the behavior of farmed American mink based on the video material, to create an ethogram of reproductive behavior as well as to analyze factors affecting reproduction of these animals. The research was carried out on a group of 12 male and 30 female farm pearl American minks. During the experiment, the animals were monitored by cameras recording the image from 06:00 to 18:00, during the breeding season lasting from 6th to 17th march.

By analyzing the footage 7 most common categories of behaviors were identified: copulation behavior, resting, grooming, observation, play time, staying in the nest box and other behaviors. Based on the analysis of the collected video material, 18 reproductive behavior characteristics of the *Neovison vison* were identified and classified and presented in the form of an ethogram. These are as follows: acceptance of the male by the female, attack/aggression, non-acceptance of the male by the female, intentional approach to markings, intentional approach to the partner, mounting, chasing, tail biting, intromission, copulation, neck/fur sniffing, genital sniffing, rubbing against the partner, grooming, looking for the mate, neck biting, end of copulation and marking the cage. Similar reproductive rituals are also observed in free-ranging minks, which confirms the research hypothesis that the reproductive behavior of farmed minks has not changed compared to that of the free-ranging minks.

The following factors affecting the duration and number of copulations were included in the analysis: date of mating, time of the day, familiarity between mating partners, latency to mate as the interval between female entrance to cage and mating. The behavior of the males during each mating week and time of day was also analyzed. The results were statistically analyzed. Animals with the highest number of matings (26 and 24 matings) showed reproductive behaviors such as chasing, biting the neck or mounting the female much more often, compared to the animals with the lowest number of matings (10 and 7 matings). There was no significant effect of mating date (first and second week of mating) on the mean time and number of matings in individual males. Furthermore, the time of the day (morning and afternoon) did not significantly affect the average time and number of matings recorded for

individual animals. However, in the case of the mean for the whole group of animals studied, the date of mating had a statistically significant effect on the average time of copulation, while the time of the day did not significantly affect the duration and number of matings.

There was also a gradual increase in the length of copulation on the subsequent days of the breeding season. Other factors that significantly influenced the time of mating were: the time of sniffing the female, body rubbing against the opposite sex, staying in the nest box, and the time from entering the male cage to the beginning of copulation.

Keywords: American mink, reproductive behavior, ethogram, ethology

07.09.2021 Helisandra Wojciechowska