

Social Interactions of the Striped Field Mouse *Apodemus agrarius* (Mammalia: Rodentia: Muridae)

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Abstract: To gain insight into the social organization of *Apodemus agrarius* the social relationships were studied in male-male, female-female and male-female dyadic encounters during spring and autumn. The striped-field mice were captured from a wild population in North-Western Bulgaria. A total of 47 adult *A. agrarius* individuals were tested in the laboratory experiment. The experiments were carried out in 50 x 50 cm glass cages. The results showed that in the spring the aggressiveness was increased and males were more aggressive than females. Probably the higher aggressiveness of males contributes to increasing of their reproductive success. The events such as following, nose-anal, nose-body, were observed more frequently in male-female encounters than in male-male and female-female ones. This confirms the essential role of odours in reproduction. In the autumn the amicable events, demonstrated by striped-field mice were significantly more than those, registered in the spring. On the basis of these findings it could be assumed that the changes in the social behaviour of *A. agrarius* are linked with the seasonal variation in its life-cycle and reproductive strategies.

Key words: *Apodemus agrarius*, social relationships, dyadic encounters, aggressiveness, mating system