

ABSTRACT

The term „personality“ nowadays occurs more often not only in psychological studies of humans but also in animal studies. Studying of personality help us to define the behavioural characteristics which can vary within the age, sexes, species or enviroments. Behavioral experiments are used to detect these behavioral patterns and they can divide the animals into the different groups.

The subject of our research became three populations of house mouse (*Mus musculus* sensu lato) which we tested in a series of experiments involving free exploration, forced exploration, hole-board test, test of vertical activity and Elevated plus-maze. These experiments should reveal wheter the mice differ in their behaviour through the context of sex, comensalism or subspecies. We found (with in excepcion of one test) that intrapopulation variability differences are very small but interpopulation differences purely increase in the cas of comensalism and effects of subspecies.

Keywords: *Mus musculus*, comensalism, open field test, Elevated plus-maze, Principal Component Analysis (PCA)