

## DESCRIPTION FOR THE GENERAL PUBLIC (IN ENGLISH)

(State the objective of the project, describe the basic research to be carried out, and present reasons for choosing the research topic - max. 2 standard type-written pages)

Animals, similarly to us people, have their own personalities. In human we can define personality as individual differences in the way people tend to think, feel and behave. The most studied traits of human personality are: neuroticism, extraversion, openness to experience, agreeableness and conscientiousness. Animal personality means consistent behavioural differences among individuals that persist through time and/or situation and the most studied personality traits include boldness, aggressiveness, exploration, activity and sociability. Therefore, when we say that one animal is bold it means that it behaves in this way both when it tries to get a food as well as when it is looking for mate.

Studies concerning animal personality are quite new topic in evolutionary biology. The growing number of researches documented existence of personality in many animal groups like mammals, birds or fish. Lastly also the number of studies on invertebrate personality is increasing and they found support of existence of personality differences in such "simple" organisms like e.g. in crustaceans or insects. Very interesting study system presents animals living in social groups because we can study both personalities of particular group members as well as the personality of the whole group. We can find out how personalities of animals living in group influence division of labour and group efficiency, which in turn can affect its survival and reproduction success. Social insects like ants or honey bee are one of the best examples of animals living in social groups. In our project we will study personality of ants both on individual as well as in colony level. We would like to find out more about factors that determine and maintain interindividual variability in social insects. Moreover, we would like to check how ant worker personality change during life time and how its personality traits affect the fact of being lazy or hardworking and which tasks ant prefers to perform. Additionally, we will study how habitat quality can influence personality of the whole ant colony. This seems to be crucial in the modern world where many human-induced changes like occur. Thus, we would like to know if and to which extent animals living in groups can change their behaviour to adapt for changing environmental conditions.

In order to get knowledge on ant personality we will make behavioural experiments in laboratory. We will use three various ant species and some of them we plan to observe throughout most of their lifespan. We will check different personality traits like: aggressiveness, exploration skills, how fast and how much ant is moving (mobility) and how much time it spends on interaction with other nest-mates (sociability). We will use video cameras for our observations and then ant behaviour will be analysis by special software which serves to analysis animal behaviour. Results of our project can shed light on possible mechanisms creating differences of behaviour among members of social insect colony. We believe that we can find out more not only about rules of ant personality but also many other animals living in social groups.