

## **Abstract:**

In group-living species, social interactions with conspecifics play a crucial role in group formation and the ability to make consensus decisions, which far-reaching consequences for ecological and evolutionary processes in natural populations. Individual recognition and partner preferences based on social familiarity are important mechanisms driving a range of interactions between individual fish as well as social structure in fish populations. However, social interactions of gregarious species are also influenced by the ecological environment experienced by individuals. My thesis aimed to define how the social structure of fish shoals is shaped by environmental based constraints presented by increased turbidity in anthropogenically impacted rivers. A freshwater, shoal-forming, visually orientated pelagic fish – bleak (*Alburnus alburnus*) – was used as a model organism. In the laboratory experiment behaviour of 40 individuals at three different levels of turbidity (0 NTU, 30 NTU, 60 NTU) were observed. My thesis aimed to find out how increased turbidity influences the shoals' structure, specifically if the turbidity reduces between individual distances in response to the deteriorated visual conditions. The results show, that bleaks increase compactness of the shoal even at the medium level of turbidity (30 NTU). Such results indicated high phenotypic plasticity of the bleak and, therefore, a high ability to adapt to anthropogenic changes in riverine environment.

Key words: turbidity, social behaviour, shoal, common bleak, freshwater fish, river