

Biological invasions of alien species, including variety of fish species, are treated as one of the biggest challenges for modern ecology. Invasive species pose a threat to the native species by competing with them or by hunting for them. Alien invasive species are the second, after habitat fragmentation, the most serious threat for global biodiversity, so their study and understanding the causes of their invasive success are important to fight with effects of these invasions. It is known that species differ from each other in their morphology, physiology, behavior and the ability to learn. This research project is aimed at testing if one of the key causes of freshwater fish species invasion success may be: (I) competitive superiority resulting from their ability to learning faster (individually and socially) and (II) greater proportion of bold personality types (recurrent, constant in time behavior as a response to environmental factors) in populations of invasive species and (III) if competitive advantage is a result of greater differentiation in learning rate and greater differentiation in personality types within invasive populations than within native species populations. Also, we want to test if there is any correlation between learning rate of an individual and its personality type.