

## **Abstract**

*Cyprinidae* is an important family of fish as far as ecological and economical aspects are considered. Studying feeding ecology of this family in aquatic ecosystems and integration of the findings into the overall image of trophic relationships are the fundamental prerequisite for the right interpretation of its ecological role. Stable isotope analysis is one of the methods capable of elucidating such relationships. In this thesis currently used methods and approaches in applications of stable isotope analysis in feeding ecology of fish are summarized. These vary among individual authors and include sampling of different fish tissues and different methods of preparation of samples before analysis, e.g. lipid extraction or carbonate removal. Certain mechanisms and phenomena which need to be taken into account to avoid biased results are also outlined in this thesis, among all tissue turnover and isotopic routing in particular. In the thesis current findings on food resources, trophic level and trophic niche of cyprinid fishes in freshwater ecosystems based on stable isotope analysis were summarized as well. Despite such findings being partial to date and the potential of the method not yet being fully exploited in many species, stable isotope analysis provide an important and useful tool alongside traditional methods.

**Keywords:** stable isotope analysis, fish feeding ecology, *Cyprinidae*, european freshwater fishes