

## Prioritization of river protection measures and strategies

S. Muhar, M. Poppe, S. Preis, M. Jungwirth, S. Schmutz

### Keywords

river, conservation, protection, prioritization, criteria, scale, planning instrument

### Abstract

The use of running waters is further being intensified on both global and national levels. This process is affecting increasingly aquatic ecosystems and is threatening those ecosystems of running water bodies, which are still intact although already substantially reduced in number and size.

In contrast to modern legislative and policy strategies at both the international and national level, which provide at least theoretically a useful framework for conservation and restoration there are still great shortcomings in addressing conservation in a systematic manner. Protecting biota and their habitats requires controlling upstream river sections and catchments, the surrounding land, and, concerning migrating aquatic fauna, downstream reaches. Accordingly, beyond the traditional criteria that represent 'rarity' or 'naturalness', adequate criteria must be chosen to capture freshwater dynamics, processes and threats at a catchment scale.

Consequently, first priority in freshwater conservation has to be dedicated to the assessment of conservation value and protection in the form of a comprehensive, adequate and representative network of conservation areas and the identification of threatening processes and protection against these. New approaches are being discussed for the first time both on the European and national levels to develop supra regional and interdisciplinary pre-planning instruments for this coordination and the subsequent prioritization process. The aim is to identify river sections where the maintenance and protection of ecological sensitive river stretches takes priority.

In this presentation we discuss protection values and criteria for running waters following the principles mentioned above. The process of prioritizing river protection measures and strategies is exemplified by the help of case studies.

### Contact

Susanne Muhar

[susanne.muhar@boku.ac.at](mailto:susanne.muhar@boku.ac.at)

Institute of Hydrobiology & Aquatic Ecosystem management  
University of Natural Resources and Life Sciences  
Max Emanuelstraße 17  
1180 Vienna  
Austria

