



Hyporheic network (Hyporheisches Netzwerk)

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The transition zone between surface waters like streams and rivers and the adjacent aquifers is a zone of paramount ecological importance. Due to the complexity of exchange processes, their temporal variability, and the spatial heterogeneity of the ecotone, the understanding and ability to model the hydrodynamic, hydrochemical, and (micro-)biological processes is still limited. Therefore, a network of scientists and practitioners involved in research and management of hyporheic zones in German-speaking countries (Germany, Switzerland, Austria) is proposed in analogy to the hyporheic network (www.hyporheic.net) in the UK. The initiators of the network anticipate that an intense scientific exchange of knowledge and methods will improve our understanding of hyporheic processes and in turn our ability to manage them. The network will facilitate the formation of research groups to identify and understand key processes and their interactions. Research will be focused at a few major study sites, to bring together different expertise to allow more detailed, interdisciplinary investigations. Those sites can serve as crystallisation points for new research projects. Exchange within the network will be organized via an internet platform (www.hyporheisches-netzwerk.de), regular workshops, and several working groups dealing with different topics. A fast knowledge transfer is a further aim of the collaboration in order to shorten the time-lag between scientific findings and their implementation into management practice. Water resources management authorities should also be involved in the network to address urgent problems and direct some capacities to answer those questions. For instance, changes in geomorphology, water and temperature regimes as well as other anthropogenic impacts might increase the need for cold water refugia and altered flow regimes to maintain biodiversity. Additional qualitative improvements are required by the EU water framework directive.