



## **IMPACT project: catchment modelling as a first step in an integrated model approach to couple abiotic and biotic habitat conditions under consideration of climate change effects**

Björn Guse and Nicola Fohrer

Institute of the Conservation of Natural Resources, Department of Hydrology and Water Resources Management,  
Christian-Albrechts-University of Kiel, Germany (bguse@hydrology.uni-kiel.de)

Due to the requirements of the European Water Framework Directive (WFD), hydrological processes in the catchment and the nutrient input into the rivers need to be modelled. The recently started IMPACT project aims to model the whole chain of the WFD from the abiotic processes in the catchment to the habitat and biotic conditions in three European rivers with different stream characteristics.

In a first step of this project, three catchments are modelled using the ecohydrological model SWAT. This poster is focused on the water balance modelling in one of the three study areas, the Treene catchment in the North of Germany. In addition to that, a water quality sampling with daily resolution was started at the outlet of the catchment. First model results are here presented. The SWAT model will be used for scenario runs in the course of the project to estimate the impact of climate and land use changes on the abiotic and biotic habitat conditions.