

Study of fish Mesohabitat dynamics in the Vorderrhein river

In recent years the understanding and modelling of the ecological functions of rivers has received more attention. Among different available approaches, Mesohabitat analysis focuses on the recognition and measure of specific river elements which are linked to species presence. This method is most commonly applied for fish species. Using numerical hydrodynamic modelling to obtain the data on which the recognition of these elements is based, allows for the investigation of habitat differences between discharge stages and eventually the prediction of habitat suitability of the investigated reach. The main goal of this project is to evaluate the ecological status of a reach in the Vorderrhein river, located in canton Graubünden, close to Ilanz (Fig. 1).



Fig 1 The study site: Vorderrhein river at Ilanz

The project includes two main parts: i) the setup and run of the BASEMENT numerical model, and ii) the evaluation of Mesohabitat dynamics from the numerical model results. The first part will be conducted in close collaboration with Dr. Davide Vanzo (EAWAG) and will include fieldwork, specifically the measurement of grain size distributions. In the latter part a tool recently developed by VAW will be applied for a specific fish target species.

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Notes:

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