

LaP 4 natural sciences: Investigation of the river Birs

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Rivers are dynamic natural systems that shape the landscape in which they flow. From source to mouth they collect and transport water, they grow and change in energy, velocity and discharge. But rivers can also be forced into straight artificial beds, or later be re-naturalized – like the river Birs. How do these man-made changes influence the river’s flow characteristics? How can we measure rivers and draw conclusions from data we collected in the field? We will answer these questions by investigating the **lower course of the river Birs**.



Fig. 1: Students measuring river depth and flow velocity. Source: Eder, S. (2015).

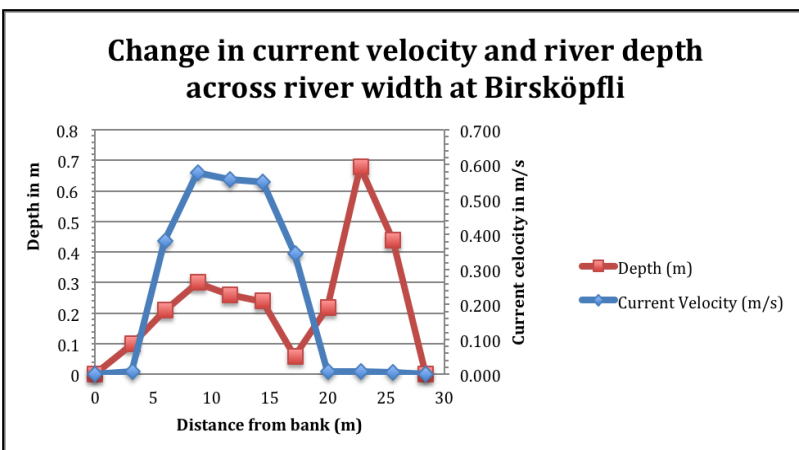


Fig. 2: Comparison of two river parameters: velocity and depth. Source: Eder, S. and LaP course 4E (2015)

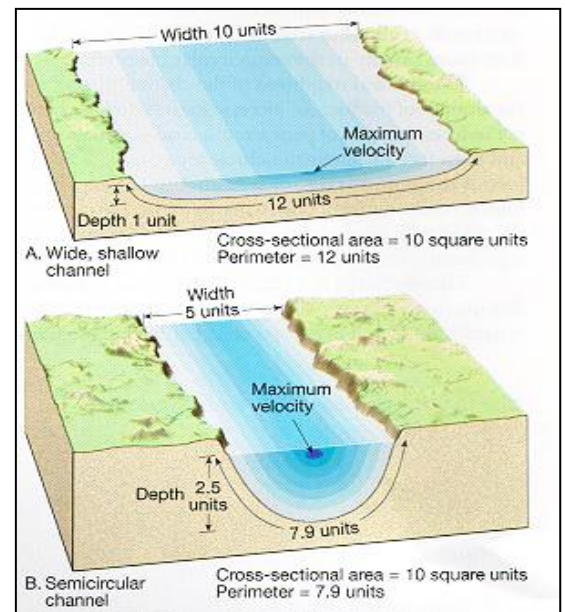


Fig. 3: Cross section of a straight stream showing the effects on stream flow capacity and velocity.. Source: <http://geologycafe.com/class/chapter11.html> (02.06.2016)

In this immersive course you will learn

- ... about natural rivers’ characteristics
- ... how to investigate/measure a river
- ... how to process/display primary data (Excel)
- ... how to compare reality with models
- ... how to plan, structure, write up a **natural scientific paper** (research question, hypothesis, data analysis and evaluation of results)