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Bed dynamics of the River Raba in the semi-natural hilly stretch from the mouth of Lubienka to the mouth Krzczonówka

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ABSTRACT

The article discusses the problem of determining the proper hydromorphological parameters of the gravelbed river. To riverbed was in hydrodynamic equilibrium it is necessary to balance supply with the erosion forces present in the river. Today, many of the Carpathian rivers flow in incised channels. Also the Raba River on the test section is lowered relative to the valley over 2 meters. Simultaneously there is the pressure of local community on the channel migration inhibition using technical methods. Determination of hydrodynamic equilibrium conditions is often discussed. Determination of transport capacity dynamic was made here basing on field measurements, survey data (high resolution DTM) and computer modelling of water flow (2D model). Also analysed were the stresses of the riverbed as well as the physical parameters in horizontal, vertical and transverse sections. This analysis let to describe the current dynamics of the river but also outlines it's possible changes resulting to the increasing anthropopressure.