



Possibilities of saturated areas observation

Alena Kulasova (1), Keith Beven (2), and Sarka Blazkova (1)

(1) T.G. Masaryk Water Research Institute, Hydrology, Prague 6, Czech Republic (sarka_blazkova@vuv.cz), (2) Lancaster Environment Centre, Lancaster, UK

Possibilities of saturated areas observation

Kulasova A, Beven, K.J., Blazkova, S.D.

One of the major sources of uncertainty in hydrological modelling is the incommensurability of catchment wetness in reality (grids e.g. 10 m) and in soil samples. The extent of saturated areas, which are the source of direct runoff, can be estimated based on topographic index. Since we want to keep only such hypotheses about the functioning of the catchment which give good results for the right reason it is advisable to check the dynamics of the saturated areas in the field. In the Jizera Mountains and its foothills it has been done by several ways (Blazkova et al., 2002ab). The experience is presented in the contribution.

This research is supported by the Czech Grant Agency (P209/11/2045).

Blazkova, S. , Beven, K.J. and Kulasova, A.: On constraining TOPMODEL hydrograph simulations using partial saturated area information. *Hydrological Processes*, 16, 441-458, 2002a.

Blazkova, S., Beven, K., Tacheci, P. and Kulasova, A.: Testing the distributed water table predictions of TOPMODEL (allowing for uncertainty in model calibration): the death of TOPMODEL? *Water Resour. Res.* VOL. 38, NO. 11, Doi: 10.1029/2001WR000912, 2002b.