



The TERENO Harz/Central German Lowland Observatory: Overview of the intensive hydrological research sites

Ute Wollschläger, Peter Dietrich, Steffen Zacharias, and the UFZ TERENO Team

UFZ - Helmholtz Centre for Environmental Research, Permoserstraße 15, D-04318 Leipzig, Germany

The Bode river catchment in the TERENO Harz/Central German Lowland Observatory is the central study site for water-related research at the Helmholtz Centre for Environmental Research - UFZ. As integral part of the TERENO observation network of the Helmholtz Association, an integrated monitoring and research concept joining hydrological, atmospheric, biodiversity related, and soil physical research is currently being implemented. This will lead to interdisciplinary research activities at different spatial scales ranging from point sampling up to remote sensing, following a nested approach.

We present an overview of the smallest units contributing to the nested approach: three highly instrumented sub-catchments, which are laid out for detailed process-based studies. Research in the intensively agriculturally used Sauerbach catchment focuses on the quantification of water and solute fluxes at the small catchment scale. In the forest stand Hohes Holz, detailed investigations of water and trace gas fluxes will be conducted including Eddy flux measurements and a wide range of auxiliary measurements. Within the Schäfertal catchment, several technologies for soil hydrological monitoring are combined in order to observe meso-scale vadose zone hydrological processes.