NUTRIENT RETENTION IN 17 EUROPEAN CATCHMENTS

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ABSTRACT

One major research challenge in the 5th FP EUROHARP project is to develop an expert tool for quantification of nutrient retention in streams, rivers, lakes and reservoirs. An Expert Group on Nutrient Retention has worked within the EUROHARP project to identify models and extract data from the international literature on nutrient retention for use in the development of suitable simple functions that can be applied in European catchments. In the poster we will present the developed expert tool and the results of applying the tool in the 17 EUROHARP catchments which cove north-south and east-west gradients in European landscapes, climate, etc. Nitrogen and phosphorus retention estimates will together with a knowledge on measured nutrient export from the 17 catchments enable us to assess the importance of nutrient retention processes for the entire nitrogen and phosphorus cycling in different European catchments. The developed expert tool is a decision-support scheme that enables catchment managers to conduct a robust and quick assessment of nutrient retention in river basins. This could be a valuable support for the initial Pressure/Impact analysis under the EU Water Framework Directive that has to be conducted before the end of 2004.

KEYWORDS: Nitrogen, phosphorus, retention, European catchments, nutrient cycling, EU Water Framework Directive.