



Changeability of phosphorus concentration in upper part of Zagożdżonka river catchment, Poland

L. Hejduk and K. Banasik

Warsaw University of Life Sciences (SGGW), Poland (leszek_hejduk@sggw.pl)

One of the most important sources of phosphorus in the agricultural areas is diffuse sources. The Zagożdżonka river catchment is a lowland catchment located in a central Poland about 100km south from Warsaw – capital of Poland. Typical for this region agricultural catchment, where 70% of area are under cultivation is investigated since 1991 (three investigation periods 1991-1995, 1999-2000, 2008) to monitor the phosphorus transport in river. The results of dissolved phosphorus and total phosphorus concentration during three research periods in upper part of Zagożdżonka river will be presented. The results concern two gauging stations: Płachty Stare (area of the catchment 82,4 km²) and Czarna gauge (1,9 km upstream of Płachty Stare gauge, subcatchment of 23,4km²). The maximum observed concentration of dissolved phosphorus reached 1,95 mgPO₄/l for Czarna gauge and 1,22 mgPO₄/l for Płachty Stare gauge. Total phosphorus concentration reached 5,78 mgP/l for Czarna gauge and 4,43 mgP/l for Płachty Stare. The decrease of concentration between gauging stations and research periods has been noticed.