



## **Seasonal variation of suspended sediment grain size distribution**

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The suspended sediment (SS) grain size distributions have been investigated in a small lowland river in Central Poland for determination of seasonal grain size variation. A time integrated sediment sampler has been developed and applied for suspended sediment sampling and low angle scattering method has been used for SS grain size determination. Data from lowland catchment of the upper part of Zagóńka river at the two gauging station - Czarna (23.4 km<sup>2</sup>) and P<sup>3</sup>achty Stare (82.4 km<sup>2</sup>) collected by the Department of Water Engineering and Environmental Recultivation Warsaw Agricultural University in the period 2003-2004 has been used in the investigation. The characteristic diameter d<sub>50</sub> varied from 54 μm to 58 μm during winter- spring season and from 92 μm to 124 μm during summer-autumn season. The possible explanation of this phenomenon is the influence of seasonal flow formation on SS sizes. The comparison of SS size distribution between gauging station indicates the significant smaller particles at downstream gauge. It could be explained by reducing of flow velocity at downstream gauge and in consequences siltation of bigger suspended sediment fractions.