

Summary

Research concerning temporal variations of suspended sediment concentration during period of high water stages was done in the lower course of the Odra River near Międzyrzecz (Western Poland). The analysis regarding dependence of mean suspended sediment concentration and discharge allowed to determine the way of suspended sediment supply to the river bed during high water stages. It was supposed that exposures of glacial and fluvioglacial sediments in high concave banks could be an important factor influencing the amount of delivery of suspended material. Besides, normal hysteretic loops (oriented clockwise) were observed in cross-sections 4 and 5. That fact would suggest that transported material originates from the Odra River bed or its vicinity. The process of sediment accretion was observed on a fragment of drowned floodplain during high water stages. Collection of samples of freshly deposited sediment and grain size analysis allowed to illustrate the mechanism of forming floodplain sediments. It also was possible to draw near conditions of forming such sediments in the past.