CHARACTERISTICS DETERMINING THE STABILITY OF WOODY DEBRIS ON THE EXAMPLE OF MORAVA RIVER IN THE LITOVELSKÉ POMORAVÍ

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Wood is an important part of streams, affecting their hydraulic, morphological and biological features. For the stream management and flood risk reduction it is important to know the characteristics that increase the stability of wood and prevent its flushing at high water stages. By the analysis of 160 pieces of woody debris in the Morava River in Litovelské Pomoraví PLA the features important for wood stability in this area were identified. The analysis by the logistic regression model identified statistical significance of the following characteristics: log length, elevation according to the common water level, burial, presence of roots and whether the piece is living or dead. Application of the model to a specific wood piece enables to calculate modelled probability of stability. If the aim is to maintain stable wood in stream according to the natural status of stream, these characteristics should be respected. The stability probabilities of the model correlated with subjective probability estimate with the coefficient of determination $R^2 = 0.57$.