



## **Impact of land uses on fish, macroinvertebrate and diatom communities in the Wei River basin, China**

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Rapid development of economics and society in China has made a great changes of land uses, which damaged the intrinsically balance of aquatic ecosystem, consequently affected the communities of freshwater biology. Wei River is the largest tributary of the Yellow River, located in the northwestern China. The disturbance by anthropogenic activities was strong in the upstream of the Wei River basin during the past decades. In this study, sixty sites were investigated in October 2012 and April 2013, distributed widely throughout the Wei River basin. Forest land, grassland, agricultural land, and urban land were selected as the land use variables to investigate the relationship between fish, macroinvertebrate, diatom communities and land uses by using Pearson correlation analysis and canonical correspondence analysis methods. The purpose of this study was to understand the relationship between land use patterns and aquatic biology communities in the Wei River basin, which was useful for effective landscape planning to protect the health of stream ecosystem.