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# ZAPADNA MORAVA RIVER: A NEW ROUTE FOR SPREADING OF ALIEN AQUATIC MACROINVERTEBRATE SPECIES IN SERBIA

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## INTRODUCTION

Zapadna Morava is 184 km long river system in Central Serbia. Together with Južna Morava River it constitutes the Velika Morava River, which is one of the main tributaries of the Danube River.

While the aquatic species of the Velika Morava is well studied, investigations on Zapadna Morava are scarce with no precise data about distribution and population status of alien macroinvertebrate species.

With 33 alien species of macroinvertebrates recorded in the waters of Serbia, it can be said that this area is moderately affected by biological invasions. Most of these species have been recorded in the Danube River, which is the main corridor for the spread of aquatic alien species in Europe.

## MATERIALS AND METHODS

During October 2020, research was conducted on the Zapadna Morava at 24 sampling sites from Čačak to Kruševac in a total length of 112 km, as well as two sampling sites per tributaries, Ibar and Rasina.

Kick-and-Sweep method was used, which is a standard method for macroinvertebrate sampling. Further, during the investigation, 10 LiNi traps were placed along the watercourse and left overnight. All sites were also checked by hand search.

## RESULTS AND DISSCUSSION

In the most downstream section, from Pojate to Kruševac the presence of two invasive mussels *Corbicula fluminea* and *Sinanodonta woodiana* has been detected, together with native and protected *Unio crassus*. Also, in this section highly invasive crayfish species *Faxonius limosus* has been observed. Although suitable habitat exists throughout the entire area of assessment the presence of noble crayfish *Astacus astacus* was not confirmed.

Recent research has already shown the presence of mentioned invasive species along the Velika Morava River and the findings presented here pointed out that species are well adapted to the habitat conditions in the downstream section of the Zapadna Morava too. In the near future it may be expected further spreading of neobiota along the course of the Zapadna Morava and adjacent, closely connected watercourses.

## INCOMING ACTIVITIES

Having in mind that previous data are not available, these results should be considered as a starting point for future work in order to enable more accurate evaluation of biocontamination of the Zapadna Morava River.