COVER LETTER

Dear editor,

I am submitting a manuscript entitled “Use of honeybees (*Apis mellifera* L.) as bioindicators of spatial variations and origin determination of metal pollution in Serbia” to be considered for publication in Journal of the Serbian Chemical Society. This is an original paper dealing with honeybees as bioindicators of metal pollution in Serbia, which has not been published elsewhere and is not under consideration by another journal.

Honeybees have been used as bioindicators in the past, however, until recently honeybees have not been used to determine origin of the detected pollution.. In this research we used honeybees to determine the levels of pollution at different locations in Serbia and we also determined the origin of metal pollution. Our findings suggest that urban and industrial regions are more polluted compared to agricultural regions where there is no industry or traffic. In this paper we used multivariate statistical methods (PCA – principal component analysis and CA – cluster analysis) to help us determine the origin of metal pollution. To the best of our knowledge we are the first authors that are using these methods in combination with honeybees as bioindicators. This study showed that there are different sources of metal pollution; For most of the analyzed metals (Al, Ba, Ca, Cd, Co, Cr, Cu, Fe, Mn and Ni) it was suggested that they are of anthropogenic origin, mainly from agriculture, intense traffic and coal combustion.

Considering that the Journal of the Serbian Chemical Society that publishes papers in the field of environmental chemistry, we feel that our results on the origin of metal pollution in Serbia are appropriate for the journal.

The potentially independent reviewers that have expertise in this field are:

Dr Olga G. Cvetković, Scientific Counselor IHTM, [olgacvet@chem.bg.ac.rs](mailto:olgacvet@chem.bg.ac.rs)

Prof. dr Jevrosima Stevanović, Associate Professor & Senior Research Associate at the Faculty of Veterinary Medicine, University of Belgrade, [rocky@vet.bg.ac.rs](mailto:rocky@vet.bg.ac.rs)

Thank you very much for your consideration.

Sincerely yours,

Nenad M. Zarić