



Confidential

Supervisor's Review of USB RIFCH PhD Thesis

Name of the PhD student: Shakhawate Md Hossain	Name of supervisor: Miloš Buřič
Title of PhD thesis: The marbled crayfish: parthenogenetic invasive species as an applicable biological model	

OVERALL COMMENTARY ON THE PhD THESIS

Ph.D. thesis by Shakhawate Md Hossain is focused on feasibility of the parthenogenetic crayfish as a model species for various scientific topics. The solved problematic involved the theoretical point of view, methodological topics and their application in ethological studies targeted on species interactions as well as for ecotoxicological studies.

First of all, Shakhawate reviewed the theoretical background to marbled crayfish biology, its distribution, ecological roles as an invasive species, and its potential to be a promising model species for many scientific topics. Together with the second paper targeted on morphological and reproductive patterns it represents very solid background for application of the model species described in following two chapters. The first of those illustrates marbled crayfish as serious threat for freshwater ecosystems providing its comparison with two aggressive crayfish invaders and his usability as model species in biological invasions research. The second one shows marbled crayfish as suitable model for eco-toxicological research with the special interest on the effect of pharmaceuticals on its behavioural patterns.

Selected six papers which Shakhawate published as the first author are only representatives of his works, not all of his outputs. All presented works were made with high diligence and hard work which resulted in high quality outputs. Obtained findings are raising new questions and providing baselines for future studies.

Personally, Shakhawate is friendly and a highly collaborative person who can work independently in laboratory experiments and writing, but can be very helpful in the field work. His collaborative approach lead to publishing of six papers and submission of another two papers as a first author together with another four published and three submitted co-authored papers. His work also bring us very good reputation at the Bowling Green University in USA and University of Hull, where he spent an internship.

From the position of the head of the Laboratory and supervisor I feel, that Shakhawate's work surpassed our expectations and I can evaluate his thesis as excellent and recommend it for defence.

FINAL RECOMMENDATION

- can be recommended for defence of PhD Thesis
 can be recommended with reservations for defence of PhD Thesis
 can not be recommended for defence of PhD Thesis

17.2. 2020, Vodňany
Date and place

Miloš Buřič
surname and signature