



Fakulta rybnářství  
a ochrany vod  
Faculty of Fisheries  
and Protection  
of Waters

Jihočeská univerzita  
v Českých Budějovicích  
University of South Bohemia  
in České Budějovice  
Czech Republic

**Confidential**

### **Supervisor's Review of USB RIFCH PhD Thesis**

Surname of the PhD student: Ing. Roman Lunda	Name of supervisor: <b>doc. Jan Mráz, Ph.D.</b>
Title of PhD thesis: Aquaculture waste valorisation	

#### **OVERALL COMMENTARY ON THE PhD THESIS**

The thesis of Roman Lunda is dealing with an important issue of waste generated by aquaculture and possibilities of its valorization. Aquaculture is the fastest growing sector of animal food production. As aquaculture production grows environmental concerns related to its waste generation and disposal such as eutrophication of waters and greenhouse gasses emissions are rising. Roman Lunda well addressed these issues in his thesis and 3 articles published in prestigious journals. Quality of wastewater and sludge from 3 different RAS farms was analyzed and possibilities of their use for aquaponics were assessed in paper I (published in Journal of Environmental Management; IF 2019 = 5.647). Aquaculture sludge as a source of nutrients for vermicomposting was successfully applied in paper II (published in Journal of Cleaner Production; IF 2019 = 7.246). Possibility to use waste biomass from biofloc system as a novel feed ingredient in crayfish diet was assessed in paper III (Scientific Reports; IF 2019 = 3.998). The thesis is thus composed of 3 published articles in excellent journals. In addition to these included papers, Roman has authored 1 article and coauthored 3 other articles published in journals with impact factor and participated in 3 applied outputs. Overall, he has published 7 papers in scientific journals, out of them 2 in Q1 journals. In conclusion I strongly recommend his thesis for defense.

#### **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

18.5.2021, České Budějovice  
Date and place

  
Mráz.....  
surname and signature