

### lihočeská univerzita v Českých Budějovicích

Faculty of Fisheries University of South Bohemia

### **Confidential**

# Supervisor's Review of USB RIFCH PhD Thesis

supervisor: Prof. Pavel Kozák, Ph.D.
g of river fish species

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

The Scientific and practical value, originality and quality of processing of PhD thesis are in a good quality. It is a complex of review, laboratory studies and development of practical fish rearing technology. The aim of the thesis was to develop and evaluate sustainable management of RAS for rearing of riverine species with emphases to economical sustainability and profitability. The first part of thesis review the trends in RAS. Second part is, in my opinion, the main part of study, focused on intensive winter culture of nase (Chondrostoma nasus) and vimba bream (Vimba vimba) for spring restocking. It was long term complex study which help to fulfil the technology of rearing of the riverine species for both commercial and protection purposes, as well. Unfortunately, it is still not publish. The second study was focused on using of vimba bream as a training fish for pikeperch, which could improve the technology of pikeperch rearing and could provide additional economical value in intensive RAS systems. Because of stress during the manipulation with fish during the rearing in RAS and the fact that welfare of fish is one of the most important factor in RAS, a short laboratory experiment focus on comparing stress impact of four anaesthetics on vimba bream was also made as a part of dissertation.

I hardly believe that the results of the thesis are highly applicable and up to date for aquaculture sector. I evaluate this PhD thesis as successful.

About Pavel personally, he worked on his topic independently and hardly, every time also ready to help all other colleagues working on their experiments in "his" recirculating systems. He has a long term practical experience with RAS and fish breeding, as well. Even he was busy in his job, he was able not only fulfil his dissertation thesis including publications, but also to pass all exams including English, which is unbelievable. We often discussed the main idea and direction of his research or direction but he always solved the problems independently inc. management of labour. His publication activity is in the average level but the practical work and results with impact on aquaculture are without any doubt. To finish it, Pavel has excellent abilities of human relations and it was real pleasure and I am proud to be his supervisor.

#### FINAL RECOMMENDATION

can be recommended for defence of Pl can be recommended with reservation can not be recommended for defence	s for defence of PhD Thesis
2.5.2017	Pavel Kozák
Date and place	surname and signature