

Confidential

Supervisor's Review of USB RIFCH PhD Thesis

Surname of the PhD student: Ing. Jiří Kříšťan	Name of supervisor: doc. Ing. Tomáš Polícar, Ph.D.
Title of PhD thesis: Optimization of reproduction and gamete quality in percid fish	

OVERALL COMMENTARY ON THE PhD THESIS

Ph.D. thesis with the title "Optimization of reproduction and gamete quality in percid fish" written by Dipl.-Ing. Jiří Kříšťan describes very interesting aspects of percid culture related to broodstock management, reproduction, the using of anesthetics during broodstock manipulation, gamete biology and physiology and new approach for the elimination of stickiness in pikeperch eggs.

The whole Ph.D. thesis includes 8 chapters in 115 pages. In total, three published scientific papers in peer-reviewed journal with IF, one published practical handbook and two submitted scientific papers in peer-reviewed journal with IF are included and discussed parts of mentioned Ph.D. thesis. Therefore I can state that this Ph.D. thesis brings new and scientific results and practical knowledge for successful protocol of: 1) controlled reproduction and 2) gently broodstock manipulation of both percid fish species, 3) elimination of egg stickiness and 4) evaluation and control of sperm quality in pikeperch. Enough number of published or submitted papers indicated very good scientific skills of candidate. I have only comments related to the scope and quality of the first chapter "General Introduction" and last chapter "General Discussion". Both mentioned parts of Ph.D. study are very limited and brief.

I think, that all or the most obtained and published data and results of rated Ph.D. thesis can be used for new development of intensive or semi-intensive perch and pikeperch farming in Europe. Both mentioned species – perch (*Perca fluviatilis* L.) and pikeperch (*Sander lucioperca* L.) are among the most valuable freshwater fish in Europe and highly sought by the European market. Current market of both fish species is undersupplied and European perch and pikeperch farming and commercial production need still new innovation and development. I hope that some protocol included in this Ph.D. study will help to increase and optimize Czech or European percid farming in the future. Innovation potential of rated Ph.D. thesis was confirmed by scientific committee of the conference AQUA 2012, when Jiří Kříšťan received an award "Best Student's Innovative Poster in Aquaculture" for presented poster with the title: "Kříšťan, J., Stejskal, V., Polícar, T., 2012: The alcalase enzyme treatment for elimination of egg

stickiness in pikeperch, *Sander lucioperca* L." during mentioned conference.

At the end of my review report, I can note that Ph.D. thesis written by Jiří Kříšťan is interesting scientific and applied work and I recommend it for final 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

26.6. 2013, Vodňany
Date and place

Tomas Policar
surname and signature

