



Review of USB FFPW PhD thesis

First name(s), surname, titles of the PhD student: Dinara Bekkozhayeva, M.Sc.	First name(s), surname, titles of supervisor: Dipl.-Ing. Jan Urban, Ph.D.
Title of PhD thesis: Fish biometric using machine vision	

REVIEWER:

Surname: Ibáñez	Institution: Universidad Autónoma Metropolitana, Iztapalapa, Mexico
Name: Ana Laura	
Titles: Prof.	E-mail: ana@xanum.uam.mx
Please describe your professional relationship to the PhD student: We had an advisory interview on the shape analysis of fish scales.	Please describe your field of expertise: My professional experience is related to fish biology, in particular with the use of morphometry to discriminate fish stocks.

QUESTIONNAIRE

Originality, scientific importance, perspectives and impacts of results presented in the PhD thesis for basic and/or applied research

Evaluate competitiveness of the PhD thesis in the international context and compare its level with the current state of the art in the field (**extent ¼ – ½ page**):

The analysis presented in Dinara's thesis is novel and consequently explores the benefits of the methodology. I am not aware that there is another study on this topic on machine vision, that is therefore one of the relevant aspects of her research. Additionally, its results are encouraging in the field of knowledge because it can discriminate individually against organisms, this is much more than the scope of other methodologies currently in use. In this sense, the student's research is outstanding in its field of development and there would be no inconvenience because she obtained her doctoral degree with this thesis.



Elaboration of the PhD thesis, objectives of the work and deliverables

Evaluate the overall level of elaboration of the PhD thesis (structuring of the main text, comprehensibility, logicity of the chapters and their ordering) and the originality of the selected approaches to solve the objectives; evaluate publications and whether the results described correspond to objectives of the PhD thesis (extent ¼ – ½ page):

The structure of the thesis is adequate and conventional in relation to doctoral theses. The order of the chapters is also adequate given the complexity of the methodology which, particularly for readers not accustomed to the subject, can be a bit labyrinthine. The publications that resulted from the research are of quality by the scientific journals evaluated. There is a clear correspondence between the objectives and the results, in that sense it is that the understanding of the thesis is possible.

OVERALL COMMENTARY ON THE PhD THESIS

Please write in the box specific comments concerning the PhD thesis in extent of 1-2 pages:

I consider that the thesis is already in form and ready for defense, it is clear that it has had many and extensive reviews, probably by its committee, so the version that they sent us to review is already very finished and complete.

My suggestion would be to expand the explanation of the method, due to the novelty of the study, I suggest that the elementary principles on which the analysis is based be added. There is this explanation in the thesis but if a brief explanation of the material used and the scientific basis were added I consider that the thesis would be much more complete.



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

FINAL RECOMMENDATION

- ☐ **PhD thesis can be recommended for defence**
☐ **PhD thesis can be recommended for defence with reservations**
☐ **PhD thesis cannot be recommended for defence**

Ana Laura Ibáñez A.

Mexico City, July 6th, 2022

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Date and place

Dr. Ana Laura Ibáñez A.

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Name and signature