

## Interactive comment on "A freshwater biodiversity hotspot under pressure – assessing threats and identifying conservation needs for ancient Lake Ohrid" by G. Kostoski et al.

## G. Kostoski et al.

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We thank the anonymous reviewer for the careful assessment of our manuscript. In the following, we address all points raised by the reviewer.

Abstract: P. 5348, Line 8: It would be good to mention where this lake is situated.

Done

P. 5348, Line 21: Should read: "Of the 11 classes of the IUCN (International Union for Conservation of Nature) threat classification scheme scored (Salafsky et al., 2008),....."

Changed, but without citation.

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Threats: P. 5352, Line 2: Should read: "..the International Union for Conservation of Nature (IUCN)...."

Changed.

P. 5352, Line 3: Should read "IUCN threat classification scheme was...."

Changed.

P. 5352, Line 3: it is not very clear to me why this threat classification scheme is used, as it is not mentioned anymore in the following text and the discussions are based on a different set of threat denomination (see Table 2).

Chapter 2.9 was basically based on this assessment. This part has now been enhanced and elongated. The classification scheme has been used since it appears to be widely used and since it is comprehensive. It is also used for an overview of "all" potential threats. The discussion is restricted on purpose to a subset of relevant threats for the Lake Ohrid system.

P. 5352, Line 8: replace citation with (IUCN, 2001)

Replaced.

P. 5352, Line 21: Where do the major conservation concerns come from? On what basis were they selected? They are not independent from each other and are not related to the threats scoring. They would need some more explanations.

Those major concern stem from the methodology used in this review, i.e. they come from a combination of own long-term observations, expert interviews, and the extensive published record. Naturally they are partly somewhat intermingled but represent the reality and relevance for the Lake Ohrid system. This cannot be circumvented in our opinion. However, we follow the reviewer's suggestion and now introduce these concerns more explicitly. Additionally, we have filled in more explanations at appropriate places.

2.1. Watershed impacts P. 5353, Line 26: The previous paragraphs all describe a specific threat, but this one describes a part of the ecosystem and not a threat and is somehow confusing.

We agree, however, we talk about impacts which are not necessarily threats. These springs are of eminent importance for Lake Ohrid since they account for the majority of the water balance. We now state more clearly how these springs affect indeed the lake.

P. 5353, Line 28: It is not clear what is affecting the springs or how they are affected.

These springs themselves are heavily impacted by adjacent settlements and touristic facilities (e.g. pollution) but also in a much more complex way due to the underground connection with Lake Prespa, which is heavily eutrophicated. These links are now more explicitly described in the text.

2.2. Agriculture and forestry: P. 5356, Line 3: Logging and subsequent silt runoffs are already mentioned in the paragraph 2.1., p.5353. This is related to the fact that the conservation concerns chosen, even if adapted and interesting for the various stakeholders active in this region, are not independent from each other.

This is now deleted in 2.1. and it is extended in 2.2.

2.3. Tourism and population growth: P. 5357, Line 10: What are the impacts of the noise emission?

This part was specified since these emissions that are really heavy during the season certainly have an impact on breeding birds and most likely on spawning shallow water fishes.

3.4. Biodiversity and species measures: P. 5365, Line 11: I don't have access to this paper (Talevski et al., 2010), but after checking the IUCN Red List data, I found some discrepancies, with only 1 species assessed as Critically Endangered and 5 species assessed as Vulnerable (but no species assessed as Endangered). It might be worthy

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to add in the SOM (supporting on-line material) the list of the species occurring in the Lake and their Red List status.

There certainly is a discrepancy that Talevski et al. (2010) are referring to particularly. The paper is freely downloadable. We do not see the reason for re-publishing published data and in the context of our paper, at least in our opinion, it is not really necessary. For these reasons, we prefer to leave this part as it is.

3.5. International activities: P. 5366, Line 6: Should read: "IUCN Red Listings...".

Changed.

P. 5366, Line 6: replace citation by (Kottelat, M & Freyhof, J., 2007)

Replaced.

Tables and Figures: Table 1: Should read: "Summary chart of IUCN threat classification scheme,...."

Changed.

Table 1: It is not clear how the scores were attributed to each threat category. The average seems somehow strange, especially as threats classes having single key threat seem over-represented in the most impacting threats.

We agree and we recalculated all relevant average scores. In addition, a column was included that gives the maximum scores of each category (see also reply to review by A. Matzinger).

Fig. 3: It would probably help to mention the name of the countries on this figure. The representation of the various areas is not very clear.

Names have been included and the overall visibility of the various areas has been enhanced.

Technical corrections: The English language of the ms should be improved, as there

are some grammatical errors.

The English has been checked by a native speaker (Elizabeth Regan).

P. 5356. Line 3 ".... into Lake Ohrid are causes for concern."

Changed.

P. 5356, Line 21: Should not start the sentence by "Again". I don't think that this point was mentioned earlier.

Deleted.

p.5363, Line 28 "...agricultural and forestry practices."

Changed.

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