

Editor comments on HESS 2017-179

29 Aug 2017

Dear Dr. Song

Thanks for your revision of the manuscript. I think you have addressed most of the concerns and improved the manuscript substantially. Before I can accept it for publication though, some minor aspects need to be rectified. I first list issues related to your answers, subsequently I add those points that refer directly to the manuscript.

Comments on your response:

L. 1562: I did not find such a map. Could you include it into the Supplementary Information? Is there a reason not to provide the coordinates in a table as well?

L. 1604: I did not find these hypotheses. Can you clarify?

L. 1624: Perhaps I missed these metrics in the revised version. If not, please add them.

Comments on the manuscript:

L. 23: Do you mean stronger in a statistical sense or a steeper slope of the regression?

L. 25: Replace *tracer* by *measure*.

L. 61: Insert *natural* before *external*.

L. 68: *Originating* instead of *originates*.

L. 69: Insert *sources* after *anthropogenic*.

L. 74 – 75: Mention also land use and travel times.

L. 86: Changes over what?

L. 98: What do you mean by *circumstances*?

L. 101: ... *regions are generally exposed to* ...

L. 104: ... *of CDOM,* ...

L. 104: ... are much *more* ...

L. 105: Replace *substance* by *factors*.

L. 109: Sentence is not clear.

- L. 121: Why *The* significant relationship? Should it not be *A* significant
- L. 132: Replace *However* by *In addition* or a similar wording.
- L. 186: Move *in the laboratory* to the line above after the parenthesis.
- L. 232: Replace *changed* by *ranged*.
- L: 242: Reduce the number of digits.
- L. 253 – 255: This is a weird sentence, reword.
- L. 287: Skip *spectra*.
- L. 290: What do you mean by stable?
- L. 292: *participation* sounds weird in this context, reword.
- L: 295 – 297: What is the linkage between the slope and the trophic state of the water bodies?
- L. 316 – 320: Reword these sentences; they are linguistically very repetitive (i.e. three times *salines lakes*).
- L. 327: Photo-bleaching is an interpretation here, not an empirical result. Add *probably* to the sentence to make this clear.
- L. 371: The reason for this strong (meaning here?) is not evident. Clarify.
- L. 379: Where can one see that? Why is it a case in-between? Clarify.
- L. 387 – 397: This paragraph is poorly structured. Its logic is not obvious since it combines different aspects. Rephrase.
- L. 431: What does *its* refer to?
- L. 436 – 438: Where can one see this? Perhaps include a table in the Supplementary Material that compares the different slopes.
- L. 479 – 483: I suggest that you combine all data in one single figure displaying the data of the different clusters by different colours. By doing so, it should get evident that the data fall into separate groups. You may consider using an in-set to account for the different ranges covered by the different M classes.
- L. 541 – 542: This is repetitive.
- L. 557: Why *Similarly*?
- L. 590 – 602: This is repetitive.
- L. 608 – 617: This is repetitive, shorten.
- L. 615 – 618: This sentence is weird, reword.

L. 629: What is close, what is scattered? Without any quantitative metric it is a trivial statement that holds true basically for every regression.

L. 653: Insert *probably* after *values*.

L. 654 – 665: This is repetitive, shorten or skip.

L. 683: Acknowledge also the reviewers of the previous version.

Fig. 1: CDOM sources are a subset of DOC sources. This should be made clear in this figure.

Fig. 2: The colours of the different regions and the lines indicating boundaries between them seem not to match. Please clarify in the figure or text.

Supplementary material:

Tables S1 – S3: Replace *Water types* by *Water body type*.

Table S1: There is no specific date for the sampling at the Three Gorges sites. Why?

Table S3: What is the meaning of *Water number*?

Sincerely

Christian Stamm, Editor HESS