

Review of: "Estimating the Fish Stocks of Six Commercial Species in the Middle Madeira River, Southwest Amazon"

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Potential competing interests: No potential competing interests to declare.

The authors estimated the stocks of six commercial freshwater fish species and the changes in catch (CPUE) relative to cumulative fishing effort using one year of refined catch data. Based on these results, the authors also qualitatively assessed whether the current catch exceeded the maximum sustainable yield (MSY) and discussed briefly how this could help adjust the catch. I think this paper is a trial study on stock estimation contributing to the sustainability of inland fisheries and is expected to be of interest to fishermen and resource managers. On the other hand, there are significant concerns about the validity of the stock estimate.

My major concern is that the time period (one year) and area for which catch data were collected may be too narrow relative to the life history (life span and reproduction cycle) and inhabitation range of each fish species. For example, from a longer-term perspective, stocks of fish species that have declined in CPUE during the study period may recover (i.e., CPUE may increase again) through reproduction and immigration to the fishing site from other reaches. In other words, the metapopulation may be maintained in good health. Therefore, it would be misleading to state that the current catch exceeds the MSY based solely on the results of this study. Or, did the locations where the fish arrived at the monitoring stations were caught generally cover the inhabitation range of the metapopulation? Even if so, it is unlikely that one year of data would take into account the changes in the stocks, including reproduction.

At the very least, the authors would need to provide a full discussion related to these concerns. Alternatively, it may be necessary to clarify that this is a trial stock estimation from spatiotemporally limited data and present appropriate objectives and discussions.

In relation to the above concerns, the authors need to describe the ecological information of the target fish species, their inhabitation range, and the extent of the fishing grounds from which the data were obtained.

Specific comments:

Figure 2 caption is missing.

"P. punctifer" in the third paragraph of the Discussion is not included in the target species. "B. amazonicus" is correct?