



SDI Review Form 1.6

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_29744
Title of the Manuscript:	Fish Yields in Relation to Water Quality and Plankton Production in Managed and Unmanaged Fresh Water Ponds
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<u>Compulsory</u> REVISION comments	Abstract P1 L18-20 : It is incorrect conclusion. Multivariable relationship can be detected by statistical multivariate analysis. Introduction P2 L45-47: Not all of reader will come from India. therefore, contrasting between religious area and “blue revolution” in this sentence is not understandable. Unless it is an important information regarding water quality or fish yield results, Further explanation is needed. Methodology P3 L59-68 : It will be better if authors present a map about study area. It will give readers a better view about where studied sites. P3 L70: “Bulk weighing of fish was conducted by recurrent netting on fortnightly basis.” With how many temporal replications? How long the monitoring had been conducted? E.g. 12 month observation with fortnightly basis will gain 24 dataset. P4 L83: “Two litre plastic bottles were used to collect water samples on bimonthly basis.” With how many temporal replications? – the same as previous comment. P4 L95-96: “This was performed at 60 day interludes” – the same as previous comment.	This was corrected in the manuscript. The information was added in the Abstract section. The information was removed from the introduction section to avoid confusion among readers. It was not vital information so removing it did not affect the impact the introduction was intended to make. A map was added to into the manuscript. This information was added in the Methods section. This information was added in the Methods section



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	P5 L128-129 : How to calculate the overall water quality rating? WQI (Water Quality Index)? The method to calculate the water quality rating should be explained in experimental section. Results While there are a bulky data derived from authors monitoring activities, however the results only presents "raw" data of monitoring activities. It does not shows any adequate statistical analysis to relate the variables of fish yields to water quality and plankton production. "r" correlation is only a partial or single variable effects between 'x' and 'y', and therefore, in this type of multi 'y' variables and 'x' variables data this type of analysis is not adequate. Authors should apply multivariate correspondence analyses to relate between observed variables. Results may separate into two sections. First is explanatory results of fish yield, plankton, and water quality. And the next section is multivariable analysis to correlate between those parameters. See Huang et al. (2011) <i>Mar Ecol Prog Ser</i>, 423:83-93, for a reference to process statistical multivariable data. Beside SPSS, author can try PAST Statistical software (http://folk.uio.no/ohammer/past/). It is a free statistical software which adequate for multivariate analysis. Here's my suggestions: 1. Discriminant Canonical Analysis (DCA) will be a powerful multivariate method to specifically separate the characteristics between water quality and plankton diversity variables in K1, K2, K3, and K4. Each pond may serve as a group in DCA analysis. Or, a simple Principal Component Analysis (PCA) to find/group any of variables into one or two principal factors. 2. Author may tried to test two or three	This information was added in the Methods section The method for estimation of water quality index was added in the methodology section. We are very appreciative to the reviewer for the suggestions. The authors have considered this suggestion and share the view that there is sufficient analysis and explanation in the manuscript to support the finding and concluding statements. This is a preliminary work on the ponds and the authors feel that this is sufficient for the intent of the present work. The suggestion of the reviewer is excellent for further work which will be carried out on a significant number of managed and unmanaged ponds and such statistical analysis will be appropriate for species modelling in the ponds.
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	hypothetical correspondence between fish yield and water quality and plankton data. Be careful with autocorrelation on each variable in multivariate analysis. A function of water quality (x) may result into plankton diversity (y) and plankton diversity may result into fish yield (z). Or $z = f(y) = f(x)$. Or directly related from x to z. It is an interesting to see the results from these multivariate correspondence. Canonical Correspondence Analysis (CCA) or Multivariate Regression Analysis may reveal the most importance variables that effects to fish yield. By using this kind of data processing, than the "relation" stated in title may scientifically gained. Discussion It is more appropriate, any statements about result are not duplicate any more in discussion part, such as "...pond K-3, with 7666 Kg/h/year." Statistical correlation should be presented in results section – not in discussion part.	The discussion section was edited and such information was removed and added to the results section.
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<u>Minor</u> REVISION comments	Recheck Hypo. Mostly uppercase are seen in a word on the middle of several sentences in the manuscript.	All typos and grammar were re-checked in the manuscript.
<u>Optional/General</u> comments	In general, it is an interesting manuscript and does have a prospect to be a good scientific paper that relate scientifically between economic values gained from sustainable environmental conservation. However, authors presents the results as “raw” data. Multi-variables analyses were conducted, but interaction between data only presented as partial correlation (r) between each data. A serious major revision is needed to process the data by further statistical multivariate analysis, i.e. canonical correspondence analysis, discriminant correspondence analysis, and principal component analysis, to present interaction between the analysed data and match to the title of “in relation”.	Please refer to the response for the results section.