



SDI Review Form 1.6

PART 1:

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	MS: 2012 AJEA 2718
Title of the Manuscript:	Diversity and Community Structure of Benthic Insects in Fish Farm Ponds in Southern Côte d'Ivoire, West Africa.

General guideline for Peer Review process is available in this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

- This form has total 9 parts. Kindly note that you should use all the parts of this review form.



SDI Review Form 1.6

PART 2: Review Comments

	Reviewer's comment	Author's comment <i>(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)</i>
<u>Compulsory</u> REVISION comments	This paper presents results about a biological sampling survey of aquatic insects carried out in some ponds of Ivory Coasts. Despite being an interesting research topic, the outcome is of little interest for a general audience and may fit better on a local or more specialized journal. My main concerns are the following: - English expression needs an exhaustive review prior to any further consideration. - The aims of the study and the underlying hypotheses tested are not adequately addressed in the text. The reasons leading to this specific sampling design remain unknown. - The results are merely descriptive. What can be inferred about the ecology of the different insect groups or the environmental conditions of the studied systems? Can these findings be extrapolated to similar habitats? - It is not clear for the reader which is the scientific relevance of the paper, that is, which of the findings addressed are novelties or important contributions unreported in the literature. I am not saying that there are not noticeable results, it's just that these are not adequately highlighted. To my knowledge, the relationship between environmental (mainly chemical) conditions and aquatic insect assemblages has been largely documented in the bibliography. The relationships found between	



SDI Review Form 1.6

	biological descriptors and environmental variables are not convincing at all, based on a reduced sample size and maybe spurious. It is well known that aquatic insects respond rather to micro-habitat stressors (vegetation, temporal/permanent condition of the system, etc) than to purely chemical parameters. There's no information on the text about these conditions. - I'd recommend authors to re-elaborate the sampling design with an a-priori classification of lakes in order to test for differences in biological composition between them. In its current status, the design is clearly affected by spatial autocorrelation and pseudoreplication, this putting at risk any plausible interpretation of the results. - The statistical methods are unjustified. Why did authors use these similarity/diversity metrics in particular? Do the data fulfil the assumptions of Pearson's test, ANOVA and CCA? What is the amount of variance captured by each axis/environmental variable in the multivariate analysis? - The use of diversity metrics is discouraged due to their dependence on the ecological scale of the study area. Why is diversity relevant? Which are the expected results according to previous research? - The discussion is very poor and does not take into account the current topics in lake macroinvertebrate ecology.	Shannon-Wiener diversity index was used to simultaneously quantify the taxonomic richness and distribution of taxa in the communities. Evenness was used to measure the distribution of individuals within species, regardless of species richness. Coefficient of similarity between stations was estimated following Sorensen (1948). Sorensen (1948) index was used to assess the similarity of insect communities between different stations. Analysis of variance (ANOVA) was used to determine the effects of stations and seasons on environmental variables, Shannon-Wiener diversity, evenness, density and biomass. Before performing the comparison test, the normality of data was checked by the Kolmogorov-Smirnov test. Data were $\log_{10}(X+1)$ transformed prior to analysis. In CCA analysis, the two axes accounted for 85.4% of the total variance, axis I expressed 57.4% and axis II, 28.4%.
--	---	--



SDI Review Form 1.6

		Diversity is relevant because it refers to the variety and variability of species that we have identified. We Corrected it.
--	--	--



SDI Review Form 1.6

Minor REVISION comments	- Instructions for authors are not strictly followed, some minor deficiencies were detected (e.g. “sp” should not be italicized). - More information about the taxonomic criteria and classification (e.g. the bibliography used) would have been helpful. - Graphics are blurry and of little interest. - The abstract must be rewritten. This is one of the most important parts of the paper and cannot be only a re-exposition of phrases taken from the main text but has to have consistence by its own. In its current status it is just a numeric description and does not contain the main results and conclusions of the paper. - Authors state that their results “complete the list of insects’ species from Ivorian aquatic ecosystems”. I’d say that this is only a contribution. Besides, I’d suggest to remove these faunistic aspects and focus only on the ecological part.	We corrected it. For the taxonomic criteria and classification, we use following document: Dejoux C, Elouard MJ, Forge Malsin J. Catalogue iconographique des insectes aquatiques de Côte d’Ivoire. Rapport ORSTOM. 1981; p. de Moor IJ, Day AJ, de Moor CF. Guide to the Freshwater Invertebrates of Southern Africa. Volume 7: Insecta Ephemeroptera, Odonata and Plecoptera. Report N° 207/03 WRC, South Africa. 2003a;288p. de Moor IJ, Day AJ, de Moor CF. Guide to the Freshwater Invertebrates of Southern Africa. Volume 8: Insecta Hemiptera Megaloptera, Neuroptera, Trichoptera Lepidoptera. Report N° TT 214/03 WRC, South Africa. 2003b;209p. The abstract is rewritten We replace “complete” with “it is a contribution”
Optional/General comments	In my opinion the paper cannot be recommended for publication in an international scientific journal at this stage.	