



SDI Review Form 1.6

Journal Name:	Journal of Agriculture and Ecology Research International
Manuscript Number:	Ms_JAERI_33497
Title of the Manuscript:	Pollen characterization of Rhizophora species in Nigeria
Type of the Article	Original Research Article

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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.

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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)
Compulsory REVISION comments	1) The methodological section is OK as regards the localisation of samples but lacks of any consideration regarding the methodology of treatment and observation of the pollen samples, which, indeed, is mandatory. <u>Please complete substantially this section accordingly.</u> 2) The analysis derived from observational data, in the discussion and conclusion of the manuscript, remains, from my point of view, somewhat unsatisfactory. This is because deciding which OTU(s) are different "species" and which ones belong together to a same "species" would require having defined, <i>at first</i>, a threshold distance inter- OTUs, above which OTUs would be admittedly different species and below which they would not be so (*). If the author(s) may explicitly argue objectively regarding the quantitative value of such a threshold (for example on the basis of previous references in literature), then quantitative data on inter-OTUs' distances in Table 5 may be analysed by comparisons to this admittedly shared threshold value. Then, and only then, discussing what are different species and what are not would relevantly makes sense. Also, a complementary approach would be to perform statistical tests regarding the degree of statistical significance of inter-OTUs differences in terms of Equatorial sizes and/or Polar sizes and/or Polar/Equatorial ratios. This may possibly help also to	Corrected Corrected Corrected Corrected Corrected

	substantiate a threshold level to separate or not the OTUs as different species. Also I am wondering why the author(s) do not associate the (already admitted) species designations for those OTUs (or cluster of OTUs) for which this is possible. This, in turn, would cast some light on the threshold distance that exist between OTUs already recognised as valid species. Now, if the author(s) do consider that the suggested approach(es) above are somewhat too difficult to deal with, the present study, yet, remains of real interest, by only limiting the goal to highlighting the <i>relative</i> distances between the five OTUs as they directly appear in the fundamental matrix of Table 5 (**). But, once more, in the absence of accepted shared opinion on the threshold evoked above, it seems for me irrelevant to discuss of what is a separate species and what is a conglomerate of OTUs more or less belonging to a same species. <u>Please, reconsider sections Discussion and Conclusion in some details, according to the arguments and suggestions above.</u> (*) to substantiate my comment by an example, I hardly understand why OTU2 and OTU4 (with distance $d = 0.098$, Table 5) would be separate as (close but yet) different species while OTU3 and OTU5 (with d only very slightly less : 0.084) would be so decidedly considered as belonging to a same species. One would (perhaps) agree with this classification only if <u>strong arguments</u> would support the fact that $d =$ say, 0.090, is precisely the threshold distance evoked above. (**) in fact the 10 “distances” inter-OTUs in Table 5 are, by themselves, already highly informative, in terms of	Corrected Corrected Corrected
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	pair-wise affinities among OTUs. And it is in this sense that this Table 5 (and your prior experimental work resulting in this Table 5) are both interesting and deserve consideration. Indeed, in my opinion, more elaborate taxonomic hierarchy, in term of designation of what is or is not a species in full, may probably not strongly improve the understanding of practical questions that would be related to <i>Rhizophora</i> in mangroves ...	
<u>Minor</u> REVISION comments	A series of details are to be corrected, labelled in the PDF; <u>please go through this reviewed PDF to make suggested corrections if you agree with them.</u> The format of the References to literature should be converted as per the preconisations of ScienceDomains' Journals (please refer to Authors' guide)	Corrected
<u>Optional/General</u> comments	The manuscript deals with questions of substantial interest, i.e. which number of significantly distinct taxa ("species" or OTUs of infra-specific level) may actually co-occur in the mangroves of the studied region. Yet, 1) the methodological section has to be largely completed and 2) the analysis derived from observational data, in the discussion and conclusion, remains, from my point of view, somewhat unsatisfactory and, accordingly should be revised, as detailed in the "Compulsory Revision Comments above. Thus, the manuscript should be <i>re-reviewed</i> after the suggested corrections are discussed/considered by the author(s).	Corrected