

## Answer to recommender and editorial board

### Round #3

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#### Author's Reply:

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#### Decision

by Aurelien Tellier, 2019-09-03 21:41

Manuscript: <http://dx.doi.org/10.1101/622373> version 3

#### Last minor revisions required before recommendation

Dear Thierry (and co-authors),

I thank you for answering all comments by the reviewers. Many thanks also for clarifying your position regarding issues of using other software, which has been most helpful to me.

Can I ask you to add some of the info you gave as a reply to reviewer 2 and myself (as 2-3 sentences in the manuscript)?

Providing this last minor revision, I would accept and write a recommendation of the preprint.

I copy below some parts of your reply which could be added in the manuscript to justify the difference of your aim/results to using Structure or other software. I would personally add the DAPC figure you suggested in your reply to me, but I leave it up to you if you wish to do so. "By contrast to the aim of this study, clustering techniques are useful to detect a Wahlund effect. Structure (and other software) can be very helpful to estimate the race or species assignment of different individuals of a population, but this was not the aim of the study. The fact that we obtain, with the cured data set, substantially negative *FIS* and *substantially high FST* estimates obviously argues in favour of a strong population subdivision. The estimates of  $N_m$  in an Island model (here  $N_m=1$  and  $N_e=7$ ) illustrate this point and support the idea that this tick population is strongly subdivided. This results is corroborated by a DAPC graphic (see Additional Figure XX), based on cured data, which provides quite a strong structure (mean assignment is 0.96), but, even if some geographic concordance can be noticed (Cluster8 is mainly Wisconsin), many individuals that belong to the same cluster originated from remote sites."

I look forward to accept the article and to write a recommendation,

Sincerely

Aurelien Tellier

Answer: We have added such sentences with a new figure (Figure 7) at the end of the conclusion section, just before the last paragraph.

#### Additional requirements by the Managing board:

In order to reach a better referencing and greater visibility of your recommended preprint, we suggest you to do the following modifications :

(i) add the following sentence in the acknowledgements: "This preprint has been peer-reviewed and recommended by Peer Community In Evolutionary Biology (<https://doi.org/10.24072/pci.evolbiol.100081>) »

Answer: Done

Note that this DOI is not the DOI of your article, but the DOI of the recommendation text that Aurelien Tellier will write. The DOI of your article remains unchanged. Doing so is very important because it would:

-indicate to readers that, unlike many other preprint in this server, your pre-print has been peer-reviewed and recommended  
-make visible this information in Google Scholar search (which is quite important).

(ii) In addition, we suggest you to remove line numbering from the preprint.

Answer: Done

Optional modifications

If you wish, we advise you to use templates (word docx template and a latex template) to format your preprint in a PCI style. This is optional. Here is the links of the templates:

<https://peercommunityin.org/templates/>

Answer: Done

Please be careful to correctly update all text in these templates (doi, authors' names, address, title, date, recommender first name and family name ...). Please be careful to also choose the badge "Open Code" if appropriate (in addition to the "Open access", "Open data" and "Open Peer-Review" badges).

Answer: Done

Indicate in the "cite as" box the version of the article that you are currently formatting. This should be version 4.

Answer: Done

If some of the reviewers are anonymous, indicate for example "Albert Ayler and two anonymous reviewers".

Answer: Done

If you have any question, please do not hesitate to contact us:  
[contact@evolbiol.peercommunityin.org](mailto:contact@evolbiol.peercommunityin.org)