

1. Re-used Text From Your Preprint/Thesis

As part of our pre-submission checks, we noticed that your manuscript reuses portions of text from your preprint.

- We appreciate that material from your preprint is often reused, however, it still needs to be cited appropriately.
- This is probably best addressed by citing your preprint in the first section where the reuse begins.
- Where there are multiple instances of reused text from the same preprint, please use this text and citation in the first paragraph of the Methods or the equivalent location: 'Portions of this text were previously published as part of a preprint / thesis (ADD CITATION)'

This doesn't make sense. I clarified this policy with Dr. Pete Binfield who responded as follows: "It has been a reasonably recent policy of ours to have authors mention the existence of a preprinted version of their publication, and as you note it hasn't necessarily been applied consistently. In addition, our use of the words "citation" and "text overlap" (when trying to explain the reasons for this) are not helpful or accurate, as you point out. The intention is merely to make readers aware of an earlier version which may have been available earlier. If you prefer not to mention the existence of the preprint in this publication (as has happened in other publications you have noted) then we can certainly make an exception here." I have no objection to a policy of pointing out (e.g., in the Software and Data Availability section) that the article was previously posted as a pre-print & have now added text as follows: "A previous version of this article was posted to the preprint server *bioRxiv* (doi: 10.1101/2023.03.08.531791)."

2. Figure Permissions

Please supply the original Figure 1 (from Revell and Collar, 2009) so that we can confirm that the modifications are sufficient to not require permissions from the original copyright owners. Please upload it as a confidential supplemental file [here](#).

If the modifications are not sufficient and the figure is taken from copyrighted material, we will need a copy of the written permission specifically allowing us to publish under our CC BY 4.0 license for our records uploaded as a Supplemental File [here](#). Please ask the copyright holder to complete our permission form found [here](#).

Figure 1 is not a modification of an existing figure at all. The data are public and are from existing publications (Near et al. 2005; Revell & Collar 2009; and Revell et al. 2022). This has been clarified in the figure caption and text.

3. Figure/Table Citation

The submission appears to be missing a citation for Figures 4, 6, 13, 19, 20 and 21 in the text.

Please can you add a citation for Figures 4, 6, 13, 19, 20 and 21 in your manuscript and **re-upload the document**.

Note: Citations must be organized, and cited for the first time, in ascending numerical order, meaning Figure 1 must always be cited first, Figure 2 must always be cited second, and so on. The same applies to Tables.

Done.

4. Charge for Extra-long Manuscript

We would like to draw your attention to our policy at <https://peerj.com/about/author-instructions/#manuscript-text-style> and warn you that, if accepted at this length or longer, your manuscript would incur an additional charge to help offset the production costs of a manuscript of that length.

- The initial submission is currently estimated to be between 75-99 typeset pages after typesetting. If the final accepted manuscript remains within that length, the additional fee would be \$750. Please note: a 'reviewing PDF' page is not the same as a typeset publication page, and our typical typeset article is approximately 17 pages in extent.

If the final accepted manuscript is expected to be outside of this range then you will be given a new estimate after acceptance in your production queries. This is not an additional APC and is not eligible for waivers or discounts. The fee cannot be paid using Tokens or waived when using a free APC redemption.

- **We note that you have already confirmed that you accept the additional fee - this is simply to advise you of the estimated cost.**

So advised.

5. Raw Data / Code Repository

Thank you for providing links to the data and code repository. If you generated / collected the data yourself and/or created the code yourself, then in accordance with our open data policy, we require a linked DOI to this repository. This can be generated through the data archiving tool Zenodo.

- If this is your own data/code then please provide the DOI when you resubmit. Please see our [instructions to authors](#) page for instructions on how to mint a DOI for your data/code.
- If you used data/code from a third party and a DOI is not available, then please provide as much relevant detail about the dataset owners as possible (names, institutions, URL for access) [here](#).

All of the *data* required to exactly reiterate the analyses of this article are now packaged with *phytools* (available on CRAN), and all *code* required to reproduce the analyses of the article are embedded in the publication text. To clarify, I have now modified the “Software and Data Availability” section of the manuscript as follows:

“The *phytools* R package is free and open source, and can be downloaded from its CRAN (<https://CRAN.R-project.org/package=phytools>) or GitHub (<https://github.com/liamrevell/phytools>) pages. More information about the *phytools* package can be obtained from the software documentation pages, my *phytools* blog (<http://blog.phytools.org>), or via my recent book with Luke Harmon (Revell and Harmon 2022). This article was written in *Rmarkdown* (Xie et al. 2018, 2020; Allaire et al. 2023), and developed with the help of both *bookdown* (Xie 2016, 2023) and the posit *Rstudio IDE* (RStudio Team 2020). All data used in the analyses of this article are packaged with the *phytools* R library versions on CRAN and GitHub (links above). Markdown code necessary to exactly rebuild the submitted version of this article (including its analyses and figures) are available at <https://github.com/liamrevell/Revell.phytools-v2/> (and folders therein). A previous version of this article was posted to the preprint server *bioRxiv* (doi: 10.1101/2023.03.08.531791).”

6. Remove Figure Legends from Figure Files

We note that Figure 5 and Figure 15 includes figure legends. Please remove all figure numbers, titles, and legends from the figure files. This information should not be contained in the figure file.

This comment was clarified to have been provided in error.

Please provide replacement figures measuring minimum 900 pixels and maximum 3000 pixels on all sides, saved as PNG, EPS or vector PDF file format without excess white space around the images.

Done.

7. Figure Accessibility

Please adjust the red/green colors used on Figures 7, 8, 20 and 21 to make them accessible to those with color blindness OR add labels so the figures aren't solely dependent on color to differentiate between the elements. Please review our [color blindness guidelines for figures](#). Note: Please do **not** replace the red/green colors with patterns in your figures.

Please provide replacement figures measuring minimum 900 pixels and maximum 3000 pixels on all sides, saved as PNG, EPS or vector PDF file format without excess white space around the images.

The color palette of Figures 7 & 8 was chosen to represent the corners, and intermediates, in a three-point (RGB) color space, so is not easy to update without loss of meaning. Furthermore, the color palette is distinguishable to my eye & I am colorblind (deutan – the most common form of colorblindness at about 75% of all cases). For these reasons, the managing editor gave me permission to keep this palette.

According to the *RColorBrewer* package developer, the “Dark2” palette that I used for Figure 20 is colorblind friendly. (I can also confirm that the colors used are distinguishable to a deutan.) The other non-sequential colorblind friendly palettes of *RColorBrewer* include some colors which I found difficult to distinguish from the background.

I updated the colors of Figure 21.

8. Figure Accessibility

Figure 8 relies on color to differentiate between the lines in the graphs. Please avoid using color alone to distinguish between parts of images. When color is used, we suggest that you consult the following resources to ensure maximum accessibility: J*FLY, Mapbox, and ColorBrewer. Please review our [color blindness guidelines for figures](#).

Please provide replacement figures measuring minimum 900 pixels and maximum 3000 pixels on all sides, saved as PNG, EPS or vector PDF file format without excess white space around the images.

Unfortunately, the nature of Figure 8 is such that the fine lines are meant to represent a probability density of lineages through time, and as such cannot be modified in style without loss of meaning. I can, on the other hand, confirm that the color palette used is distinguishable to a deutan: the most common form of colorblindness, at around 75% of all cases (see comments above).