

Integrative taxonomy revisits the ontogeny and trophic niches of *Rimicaris* vent shrimps

Pierre Methou, Loïc N. Michel, Michel Segonzac, Marie-Anne Cambon-Bonavita and Florence Pradillon

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Review timeline

Original submission: 19 May 2020

Revised submission: 16 June 2020

Final acceptance: 17 June 2020

Note: Reports are unedited and appear as submitted by the referee. The review history appears in chronological order.

Note: This manuscript was transferred from another Royal Society journal with peer review.

Review History

RSOS-200837.R0 (Original submission)

Review form: Reviewer 1

Is the manuscript scientifically sound in its present form?

Yes

Are the interpretations and conclusions justified by the results?

Yes

Is the language acceptable?

Yes

Do you have any ethical concerns with this paper?

No

Have you any concerns about statistical analyses in this paper?

No

Recommendation?

Accepted with minor revision (please list in comments)

Comments to the Author(s)

I have previously reviewed the manuscript by Methou et al. entitled "Integrative taxonomy revisits the ontogeny and trophic niches of *Rimicaris* vent shrimps" for Proceedings B, and I am glad to see a revised version in Royal Society Open Science. The manuscript is an integrative study which presents new and important data for two *Rimicaris* shrimps living in hydrothermal vents. Particularly of interest is the isotopic data revealing trophic shifts and insights on their life history. This revised version has adequately addressed the concern from my previous review, with really great efforts by the authors to improve both text and display items. This paper will be essential and highly useful for future workers who wishes to undertake research in hydrothermal vent shrimps. I therefore recommend publication of this manuscript in Royal Society Open Science, following considerations of final few minor points for readability.

Minor points:

Throughout: I suggest not starting a sentence with abbreviated genus (ie. R.) but write out the genus in full (ie. *Rimicaris*).

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Decision letter (RSOS-200837.R0)

We hope you are keeping well at this difficult and unusual time. We continue to value your support of the journal in these challenging circumstances. If Royal Society Open Science can assist you at all, please don't hesitate to let us know at the email address below.

Dear Dr Methou

On behalf of the Editors, I am pleased to inform you that your Manuscript RSOS-200837 entitled "Integrative taxonomy revisits the ontogeny and trophic niches of *Rimicaris* vent shrimps" has been accepted for publication in Royal Society Open Science subject to minor revision in accordance with the referee suggestions. Please find the referees' comments at the end of this email.

The reviewers and handling editors have recommended publication, but also suggest some minor revisions to your manuscript. Therefore, I invite you to respond to the comments and revise your manuscript.

- Ethics statement

If your study uses humans or animals please include details of the ethical approval received, including the name of the committee that granted approval. For human studies please also detail whether informed consent was obtained. For field studies on animals please include details of all permissions, licences and/or approvals granted to carry out the fieldwork.

- Data accessibility

It is a condition of publication that all supporting data are made available either as supplementary information or preferably in a suitable permanent repository. The data accessibility section should state where the article's supporting data can be accessed. This section should also include details, where possible of where to access other relevant research materials such as statistical tools, protocols, software etc can be accessed. If the data has been deposited in an external repository this section should list the database, accession number and link to the DOI for all data from the article that has been made publicly available. Data sets that have been deposited in an external repository and have a DOI should also be appropriately cited in the manuscript and included in the reference list.

If you wish to submit your supporting data or code to Dryad (<http://datadryad.org/>), or modify your current submission to dryad, please use the following link:

<http://datadryad.org/submit?journalID=RSOS&manu=RSOS-200837>

- Competing interests

Please declare any financial or non-financial competing interests, or state that you have no competing interests.

- Authors' contributions

All submissions, other than those with a single author, must include an Authors' Contributions section which individually lists the specific contribution of each author. The list of Authors should meet all of the following criteria; 1) substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; 2) drafting the article or revising it critically for important intellectual content; and 3) final approval of the version to be published.

All contributors who do not meet all of these criteria should be included in the acknowledgements.

We suggest the following format:

AB carried out the molecular lab work, participated in data analysis, carried out sequence alignments, participated in the design of the study and drafted the manuscript; CD carried out the statistical analyses; EF collected field data; GH conceived of the study, designed the study, coordinated the study and helped draft the manuscript. All authors gave final approval for publication.

- Acknowledgements

Please acknowledge anyone who contributed to the study but did not meet the authorship criteria.

- Funding statement

Please list the source of funding for each author.

Please ensure you have prepared your revision in accordance with the guidance at <https://royalsociety.org/journals/authors/author-guidelines/> -- please note that we cannot publish your manuscript without the end statements. We have included a screenshot example of the end statements for reference. If you feel that a given heading is not relevant to your paper, please nevertheless include the heading and explicitly state that it is not relevant to your work.

Because the schedule for publication is very tight, it is a condition of publication that you submit the revised version of your manuscript before 19-Jun-2020. Please note that the revision deadline will expire at 00.00am on this date. If you do not think you will be able to meet this date please let me know immediately.

To revise your manuscript, log into <https://mc.manuscriptcentral.com/rsos> and enter your Author Centre, where you will find your manuscript title listed under "Manuscripts with Decisions". Under "Actions," click on "Create a Revision." You will be unable to make your revisions on the originally submitted version of the manuscript. Instead, revise your manuscript and upload a new version through your Author Centre.

When submitting your revised manuscript, you will be able to respond to the comments made by the referees and upload a file "Response to Referees" in "Section 6 - File Upload". You can use this to document any changes you make to the original manuscript. In order to expedite the processing of the revised manuscript, please be as specific as possible in your response to the referees. We strongly recommend uploading two versions of your revised manuscript:

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- 2) A 'clean' version of the new manuscript that incorporates the changes made, but does not highlight them.

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- 2) A separate electronic file of each figure (EPS or print-quality PDF preferred (either format should be produced directly from original creation package), or original software format);
- 3) Included a 100 word media summary of your paper when requested at submission. Please ensure you have entered correct contact details (email, institution and telephone) in your user account;
- 4) Included the raw data to support the claims made in your paper. You can either include your data as electronic supplementary material or upload to a repository and include the relevant doi within your manuscript. Make sure it is clear in your data accessibility statement how the data can be accessed;
- 5) All supplementary materials accompanying an accepted article will be treated as in their final form. Note that the Royal Society will neither edit nor typeset supplementary material and it will be hosted as provided. Please ensure that the supplementary material includes the paper details where possible (authors, article title, journal name).

Supplementary files will be published alongside the paper on the journal website and posted on the online figshare repository (<https://rs.figshare.com/>). The heading and legend provided for each supplementary file during the submission process will be used to create the figshare page, so please ensure these are accurate and informative so that your files can be found in searches. Files on figshare will be made available approximately one week before the accompanying article so that the supplementary material can be attributed a unique DOI.

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Once again, thank you for submitting your manuscript to Royal Society Open Science and I look forward to receiving your revision. If you have any questions at all, please do not hesitate to get in touch.

Kind regards,

Anita Kristiansen
Editorial Coordinator

Royal Society Open Science
openscience@royalsociety.org

on behalf of Dr Punidan Jeyasingh (Associate Editor) and Kevin Padian (Subject Editor)
openscience@royalsociety.org

Associate Editor Comments to Author (Dr Punidan Jeyasingh):

Comments to the Author:

This ms was reviewed by two experts at ProcB earlier. I thank the authors for submitting this ms to RSOS. The authors have addressed all comments made by one of the reviewers at ProcB. Moreover, the authors responded to comments from another (more critical) reviewer. The revised manuscript was re-assessed by this expert. This reviewer is clearly satisfied with the revisions, although they have raised some minor (but useful/important) issues. With much gratitude to the expert reviewer, I am delighted to recommend this manuscript for publication after the authors have addressed these minor issues.

Reviewer comments to Author:

Reviewer: 1

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Author's Response to Decision Letter for (RSOS-200837.R0)

See Appendix A.

Decision letter (RSOS-200837.R1)

We hope you are keeping well at this difficult and unusual time. We continue to value your support of the journal in these challenging circumstances. If Royal Society Open Science can assist you at all, please don't hesitate to let us know at the email address below.

Dear Dr Methou,

It is a pleasure to accept your manuscript entitled "Integrative taxonomy revisits the ontogeny and trophic niches of *Rimicaris* vent shrimps" in its current form for publication in Royal Society Open Science.

Please ensure that you send to the editorial office an editable version of your accepted manuscript, and individual files for each figure and table included in your manuscript. You can send these in a zip folder if more convenient. Failure to provide these files may delay the processing of your proof. You may disregard this request if you have already provided these files to the editorial office.

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Thank you for your fine contribution. On behalf of the Editors of Royal Society Open Science, we look forward to your continued contributions to the Journal.

Kind regards,
Royal Society Open Science Editorial Office
Royal Society Open Science
openscience@royalsociety.org

on behalf of Dr Punidan Jeyasingh (Associate Editor) and Kevin Padian (Subject Editor)
openscience@royalsociety.org

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Appendix A

Associate Editor Comments to Author (Dr Punidan Jeyasingh):

Comments to the Author:

This ms was reviewed by two experts at ProcB earlier. I thank the authors for submitting this ms to RSOS. The authors have addressed all comments made by one of the reviewers at ProcB. Moreover, the authors responded to comments from another (more critical) reviewer. The revised manuscript was re-assessed by this expert. This reviewer is clearly satisfied with the revisions, although they have raised some minor (but useful/important) issues. With much gratitude to the expert reviewer, I am delighted to recommend this manuscript for publication after the authors have addressed these minor issues.

Author's response: We are grateful to the editor for his acceptance of our manuscript for publication at the Royal Open Society Science journal. We have provided to our manuscript the additional minor corrections according to the recommendations of the first reviewer. We also provided the doi code of the isotopic dataset used in this study (SEANO database) according to the data accessibility conditions for publication at Royal Society Open Science.

Reviewer comments to Author:

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Author's response: All the minor corrections were made according to the recommendations of the referee.

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Author's response: Minor corrections on figures and tables were made according to the recommendations of the referee.