**Global Change Biology submission**

**Submission website:** <http://mc.manuscriptcentral.com/gcb>

**Contact information for at least 5 suggested reviewers (selection is at the Editor's discretion) [Any suggestions?]**

o First and last name

o Institution  
o E-mail address  
o These must have no conflict of interest with the authors including former or current coauthors (within the past 4 years), students, mentors and members of the same academic institution

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**Answers to the following questions (max 50 words per answer)**

* + What is the scientific question you are addressing?

How do abiotic and biotic factors determine changes in composition of ecological communities along thermal gradients?

* + What is/are the key finding(s) that answers this question?

Rainforest *Drosophila* distributions along an elevational gradient can be explained by small but significant differences in upper thermal limits at their hot, low-elevation range margins, and by interspecific competition at their cool, high-elevation range margins.

* + Why is this work important and timely?

Our results challenge the common assumption that the positions of low-temperature boundaries to species’ ranges in species-rich tropical ecosystems are constrained abiotically, while biotic interactions define their high-temperature range boundaries. The results highlight the threat that climate warming and heatwaves pose to species in tropical lowlands.

* + Does your paper fall within the scope of GCB; what biological AND global change aspects does it address?

Yes: our paper examines the rules governing species distributions in tropical rainforest using a *Drosophila* community, where population-level performances are largely influenced by abiotic factors and intra-specific competition. It provides a foundation to evaluate the threat that intensifying warming poses to ecological communities in tropical mountain systems and more generally.

* + What are the three most recently published papers that are relevant to this question? This information will assist the Editors in selecting reviewers.

Paquette, Alexandra, and Anna L. Hargreaves. "Biotic interactions are more often important at species’ warm versus cool range edges." *Ecology letters* 24.11 (2021): 2427-2438.

Amundrud, Sarah L., and Diane S. Srivastava. "Thermal tolerances and species interactions determine the elevational distributions of insects." *Global Ecology and Biogeography* 29.8 (2020): 1315-1327.

Overgaard, Johannes, Michael R. Kearney, and Ary A. Hoffmann. "Sensitivity to thermal extremes in Australian Drosophila implies similar impacts of climate change on the distribution of widespread and tropical species." *Global change biology* 20.6 (2014): 1738-1750.

Reasons:

(Paquette and Hargreaves 2021): a recent global synthesis showing that the difference in the contribution of biotic factors to warm versus cold boundaries disappears toward the equator [big picture]

Amundrud, Sarah L., and Diane S. Srivastava. "Thermal tolerances and species interactions determine the elevational distributions of insects." *Global Ecology and Biogeography* 29.8 (2020): 1315-1327. [recent empirical study with an insect system (tropical freshwater insects) and partially similar conclusions]

Overgaard et al. (2014) examined a similar subset of tropical rainforest *Drosophila* species and concluded that the sensitivity of their demographic traits to temperature was indistinguishable between widespread and tropical species and was thus a poor predictor of distribution. [empirically most relevant but not very recent.]

Additional: (Cahill et al. 2014 *Journal of Biogeography* 41.3 (2014): 429-442): Limited and mixed results from tropical systems cast great uncertainty on the importance of biotic and abiotic contribution in the tropics. [also big picture]

* + If you listed non-preferred reviewers, provide a justification for each

None.

* + Justification if your manuscript does not conform to author or formatting guidelines (e.g. exceeding word limit)

My manuscript conforms to author and formatting guidelines.

**Other information:**

Paper Types Defined: Primary Research

[done] Authorship

Contributions from anyone who does not meet the criteria for authorship should be listed, with permission from the contributor, in an Acknowledgments section. Financial and material support should also be mentioned. Thanks to anonymous reviewers are not appropriate.

[done] Funding   
All sources of institutional, private and corporate financial support for the work within the manuscript must be fully acknowledged, and any potential conflicts of interest noted. If in doubt, please check the Open Funder Registry for the correct nomenclature: <https://www.crossref.org/services/funder-registry/>

Conflict of Interest Statement

Authors will be asked to provide a conflict of interest statement during the submission process. For details on what to include in this section

Publication Ethics  
This journal is a member of the [Committee on Publication Ethics (COPE)](http://publicationethics.org/). Note this journal uses iThenticate’s CrossCheck software to detect instances of overlapping and similar text in submitted manuscripts. Read Wiley’s Top 10 Publishing Ethics Tips for Authors [here](http://www.wileyauthors.com/ethics). Wiley’s Publication Ethics Guidelines can be found [here](https://wiley.sharepoint.com/sites/teamsites/Production-Resources/Journal%20Manager%20Toolkit%20Policies%20%20Procedures/Tools/Author%20Guidelines/authorservices.wiley.com/ethics-guidelines/index.html).

GCB is committed to rapid evaluation and publication of submitted papers.

During the first stage, manuscripts are assigned to appropriate members of the Editorial Board who determine if the manuscript should be sent for peer-review. This decision is based on the submission questions and abstract. In 2021, the average time for this stage was 7 days and 38% of manuscripts progressed to the second stage.

During the second stage, manuscripts are assessed by two to three independent reviewers. The final decision is made by the Subject Editor. In 2021, the average time for stage two was 49 days and 19% of submitted manuscripts were accepted for publication.

AIMS AND SCOPE

Global Change Biology exists to promote new understanding of the interface between biological systems and all aspects of environmental change that affects a substantial part of the globe.

Translated Abstracts

All submissions must be written in English. However, we encourage authors to provide a second abstract in their first language or the language relevant to the country in which the research was conducted. The second abstract will be published with the online version of the article and will not be included in the PDF. Please note that second abstracts will not be copyedited and will be published as provided by the authors, who take responsibility for the accuracy of the translation. Authors who wish to take advantage of this option should upload their second abstract alongside their submission, selecting the file type “Translated Abstract not for Review".

[TO DO: data on zenodo]Data Sharing and Data Accessibility  
*Global Change Biology* requires, as a condition for publication, that the data supporting the results in the paper be archived in an appropriate public repository. Data archiving must be completed before files will be sent to the publisher.

Manuscript files will not be sent to the publisher unless the following three criteria are met:

* A data availability statement which provides information about where the research data and other artifacts supporting the results reported in the paper can be found must be submitted. Links to the repository where the dataset(s) are publicly archived and DOIs must be included. A list of standard templates for the text for the ‘Data Availability Statement’ is available [here.](https://authorservices.wiley.com/author-resources/Journal-Authors/open-access/data-sharing-citation/data-sharing-policy.html#standardtemplates)
* Data must be cited within the text in the in the Materials and Methods section.
* Data must be included as a formal citation in the reference section. More detail on how to do this can be found [here](https://authorservices.wiley.com/author-resources/Journal-Authors/open-access/data-sharing-citation/data-citation-policy.html).