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6th May 2024

Alistair M. Hetherington

Editor in Chief of the editorial bord

New Phytologist

Please ensure that your cover letter includes answers to the following questions (max. 50 words per question) as detailed in the Author guidelines:  
1. What hypotheses or questions does this work address?  
2. How does this work advance our current understanding of plant science?  
3. Why is this work important and timely? Comment from webpage.

Dear Editorial Board,

I am pleased to submit our original manuscript entitled: **“Microclimatic variation regulates seed germination phenology in alpine plant communities”** by Clara Espinosa del Alba, Eduardo Fernández-Pascual and Borja Jiménez-Alfaro, to be considered for publication as a “Full Paper” in New Phytologist.

1. What hypotheses or questions does this work address?

In this study, we aim to understand how microclimatic conditions influence germination phenology across a whole year. In alpine environments, germination phenology is key for successful regeneration, and little is known about the potential plasticity of germination timing and how it might influence the responses under future climate scenarios.

2. How does this work advance our current understanding of plant science?

Our novel approach combined eight germination phenology traits for 54 species, in two contrasting microclimatic conditions. The results showed a generalizable and quantifiable phenological shift along microclimatic gradients. Complementary field sowing experiments corroborated the consistent advancement of germination, under the warmer conditions, registered in the laboratory.

3. Why is this work important and timely?

Our findings have large implications highlighting the plasticity of seed germination to microclimatic conditions. However, this plasticity might not be enough for species with strict germination requirements and will potentially suffer disrupting effects in future climate scenarios.

We are confident that our manuscript is of broad international interest and consider that fits the scope of New Phytologist. Our manuscript has not been published, nor is it currently under consideration for publication, elsewhere. We would also like to clarify that all sources of funding have been acknowledged and that no ethical approvals were required for this research.

Thank you for taking the time to consider this manuscript.

Yours sincerely,

Clara Espinosa del Alba, corresponding author, on behalf of my co-authors.