



Dear Drs. Hetherington and Austin:

Please consider our manuscript, “Integrating experiments to predict interactive cue effects on spring phenology with warming,” for publication as a Research review in *New Phytologist*. This is a revision of manuscript NPH-R-2021-38748.

This article draws on long-term observations, controlled environment experiments (including a meta-analysis of seven decades of controlled environment studies), and physiological advances at the molecular level to outline a path forward for studies of spring plant phenology. We show why a greater integration across fields will be critical for accurate forecasts of plant phenology.

Three referees and the editor provided very helpful comments on the previously submitted manuscript. We extend many thanks for the positive tone of the comments and the remarkably consistent suggestions of how to improve the manuscript—specifically that we needed to incorporate more insights from recent advances in the molecular underpinnings of spring phenology and their potential to advance our current approaches to climate change research. In response, we have worked to address this throughout, with both small additions and several new paragraphs in places specifically suggested by the reviewers. We now include a new paragraph outlining our basic understanding early in the section ‘Why observational studies are not enough to robustly estimate cues,’ and later on in a forward-looking section, ‘Incorporating our understanding of physiology into forecasts of phenology.’ Additionally, we provide an extended discussion of new molecular insights into chilling in the Supporting Information. We believe the current version is greatly improved from our first submission because of these changes.

Upon acceptance for publication, data from a systematic literature review included in the paper will be freely available at KNB ([knb.ecoinformatics.org](http://knb.ecoinformatics.org)); the full dataset is available to reviewers and editors upon request. All authors substantially contributed to this work and approved of this version for submission. The manuscript is approximately 4650 words with 200 word summary, four figures, and 65 references. It is not under consideration elsewhere. We hope that you will find it suitable for publication in *New Phytologist* and look forward to hearing from you.

Sincerely,

A handwritten signature in black ink, which appears to read 'Elizabeth M Wolkovich', is positioned below the 'Sincerely,' text.

Elizabeth M Wolkovich  
Associate Professor of Forest & Conservation Sciences  
University of British Columbia