Forest and Conservation Sciences
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October 19, 2019

Dear Drs. Chase and Hillebrand:

Please consider our manuscript, entitled "How environmental tracking shapes communities in stationary & non-stationary systems " for publication as a Review & Synthesis in *Ecology Letters*. This comes based on an invitation over email in May of this year (with submission expected in mid-October).

These models, which underlie much of current community ecology research Mayfield:2010fe,barabas2018, allow tests of basic predictions of how tracking may shape communities. While growing empirical research supports that tracking is an important trait—especially in a changing environment—there are few tests of whether models support these basic predictions (detailed in section *Interspecific variation in tracking* above).

Indeed, research in this area has often been focused on understanding the impacts of climate change, and comparatively less often been guided by testing or developing ecological theory, even though ecological theory provides the best path towards a general and predictive framework.

Thanks for thinking of me. I do have some interesting work coming along on complex phenological responses to climate change, but I'd like to suggest skewing the topic just slightly to the complexity of phenological 'tracking' (how well species track environmental change), including the complexity in measuring it and how it may structure communities in stationary and non-stationary systems. We've been working on a version of the storage effect model that gives us some interesting insights via simulations and I think a Review & Synthesis where we marry these results with some of the long-term and experimental data available now could help advance the field.

Upon acceptance for publication, the database will be freely available at KNB (*?*; currently meta-data are there); the full database is available to reviewers and editors upon request. This work is a meta-analysis, so data have been previously published; however, the synthesis of these data and the tables, figures, models, and materials presented in this manuscript have not been previously published nor are they under consideration for publication elsewhere.

T. J. Davies, S. Elmendorf and J. Hille Ris Lambers have previously reviewed the manuscript. We recommend the following reviewers: Josep Peñuelas, David Inouye,

Ally Phillimore, and Mark Schwartz.

Sincerely,

Elizabeth M Wolkovich
Associate Professor of Forest & Conservation Sciences
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