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Professor Alistair M. Hetherington
Editor-in-Chief, New Phytologist
School of Biological Sciences
University of Bristol
Bristol BS8 1TQ, UK

Dear Prof. Hetherington:

My co-authors and I are pleased to submit our manuscript for consideration as a research article in **New Phytologist**.

1. What hypotheses or questions does this work address?

   We test whether more closely-related plants tend to share more pollinators and/or herbivores using a set of published plant-insect networks. We test this hypothesis both across whole communities and within plant families co-occurring in a community. We link the two scales of inquiry by investigating whether the strength of the whole-community relationship is related to the families present in the community.

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

   By combining community-scale and family-scale analyses, we gain a richer and more detailed picture of the ways in which plant-animal interactions are structured with respect to evolutionary history. In particular, while we found that more closely-related plants do generally tend to share more interaction partners, we demonstrate the variety of patterns of conservation across families. This variability may help to explain the mixed results from earlier studies, especially those considering only a single network. Moreover, our approach takes into account both the numbers of shared interaction partners and the number of interaction partners which are not shared. We thus avoid discarding information, as happens when numbers of shared and not-shared interaction partners are converted to a single proportion. This more-detailed approach gives us more power to detect subtle trends.

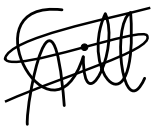
3. Why is this work important and timely?

   Plants' interactions with animals can significantly affect their fitness, both posi-

tively and negatively. These interactions might be conserved through stabilising selection or if key traits affecting the interactions are highly heritable, or they might not be conserved if there is selection to avoid overlap with close relatives or if distant relatives converge. The question of whether, and how strongly, plants' interaction partners are phylogenetically conserved has excited continuing interest, as it is likely an important step towards understanding the eco-evolutionary dynamics of plant-insect communities. Within this context, our work takes one step beyond considering whole-network trends to examine variation between plant families. We believe that this finer-grained approach will be critical in future efforts to find the mechanisms driving conservation of interaction partners.

Note that we submitted an earlier version of this manuscript to New Phytologist (NPH-MS-2016-21211), for which the revision period expired in August 2017. As the lead author was completing her PhD and transitioning to a postdoctoral appointment in a different country, we hope that the Editorial team will understand our failure to meet the original deadline. While we have taken the comments provided on the earlier version to heart, we now use a very different methodology and have revised the entire manuscript. We are therefore happy to have the current version stand on its own merits as a new initial submission, but are also prepared to provide a response to the previous round of comments if requested. Despite the delay, we hope that you will agree that the question we investigate remains of interest to the readership of **New Phytologist**.

Best regards,



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