Dr. Jason Holt & Dr. Peter Binfield

“Seed aggregation tips the scale in plant competition: exploring heteromyopia with native, exotic, and mimic plants.”

PeerJ

PeerJ Inc., PO Box 910224, San Diego, CA

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Dear Dr. Holt & Dr. Binfield,

In arid ecosystems, many plant species rely on other benefactor plants to ameliorate their environment by providing shade, water, protection, and other benefits. The balance between facilitative and competitive interactions between plants largely determines population success, which then creates habitat for other community members. More specifically, it is the spatial aggregation of interacting plants that may inform the nature of these interactions. In our submitted study, we explicitly detail the relationship between a native annual and an invasive grass and how this relationship shifts with differing spatial aggregations of these parties.

Our work is certainly relevant to your readers in that we provide insight for practical applications in the field. Our study species are the native annual, *Phaecelia tanacetifolia,* and the invasive, non-native grass, *Bromus madritensis*­—the latter of which has decimated much of Southern California’s desert ecosystems. Our critical key finding was that *Phaecelia* benefitted much more than *Bromus* in clumped seed dispersals, so far as to say that *Bromus* seeds performed poorly in those clumped mixtures as well. Environmental managers’ seed planting strategies can, therefore, be directly impacted by our study in the Southwestern U.S. and anywhere with invasive grasses (that is, most of the world, but especially arid ecosystems). Additionally, our study provides some novelty in the use of false, plastic “brome” mimics as positive controls for above-ground interactions, which are a cheap, effective, and sorely underused option for many plant ecologists. Lastly, because our study was conducted in a controlled greenhouse environment, we eliminated several significant outside forces like herbivory or weather as confounding variables. This is all to say that our ecological paper provides significant groundwork for managers, scientists, and even horticulturalists who wish to better understand plant interactions.

In regard to referees, we would like to suggest three individuals whom we see as qualified to peer review our paper. Dr. Nicolas Barbier of the Institute of Research for Development in Marseille, France, is a plant network ecologist with experience in competition/facilitation pertaining to spatial distribution of plants. Dr. Lesley DeFalco of the USGS is an invasion ecologist who has studied *Bromus madritensis* as it interacts with native species in the Californian Desert*.* Lastly, we’d like to suggest Dr. Heather Hager of University of Guelph, a plant biologist with experience in greenhouse experiments, particularly those which investigate interspecific interactions between invasive and native grasses. We believe this variety of reviewers will provide the most thorough peer review process and produce the highest quality paper possible.

Thank you for your consideration, we hope to hear from you soon.

Sincerely,

Calvin Cho, Christopher Lortie, Jenna Braun, Malory Owen, & Nargol Ghazian

Suggested Referees List:

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| Dr. Heather A Hager | [hhager@uoguelph.ca](mailto:hhager@uoguelph.ca) |
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