Proposal Status | MAIN

Organization: University of Florida

Panel Summary #1

Proposal Number: 1754741

Panel Summary:
Panel Summary

Population & Community Ecology Program
Fall 2017 Advisory Panel

1.) RESULTS OF PRIOR NSF SUPPORT [If applicable, please evaluate the accomplishments of the PI's past NSF supported work.]

Intellectual Merit: Students trained under an IGERT grant generated >70 publications and >140 conference presentations. An NSF grant also generated 24 publications. The intellectual merits are thus excellent. Broader Impacts: the IGERT grant trained 5 cohorts of students (25 trainees, 18 associates). An NSF grant supported multiple interns and data were used in multiple theses. Broader impacts are thus clearly important.

2.) REVIEW CRITERION I: INTELLECTUAL MERIT [Please discuss the specific intellectual strengths and weaknesses and explain your evaluation.]

Intellectual Strengths: The analysis - to be performed by a postdoc- will address the combined effect of drought and fragment size and their interaction to test the Fragmentation-Drought hypothesis using data from a single species in a unique experimental system. The proposal is well written and tests a timely hypothesis using quantitative demographic analyses. The analyses will allow the formulation of predictions about interactions of drought and fragmentation. The unique long-term demographic dataset within a landscape fragmentation experiment generated some excitement on the panel.

Intellectual Weaknesses:
During the review of the preproposal concern had been expressed that only a single species would be used. In the current proposal it was not sufficiently well-argued why it still included only a single plant species and how the insights gained could be used to generalize to more and different species. The panel felt that, therefore, the proposed study would provide incremental, but not transformative insights.
Several more specific methodological remarks were also made: (a) A panel member did not find that the statement that the data analysis would use a flexible Bayesian framework was helpful as it does not provide much detail on what will be done; (b) Although the proposal mentions that the BDFFP study has measured daily precipitation at multiple sites which can be used in the analyses, it is unclear at what level of resolution other measures of abiotic variables are available, and how the proposed more detailed measurements using iButtons would allow an understanding of historic conditions; (c) Finally, another potential problem with the data set concerned the difficultly of disentangling pure effects of fragment size from indirect effects resulting from frequency dependent effects.

3.) REVIEW CRITERION II: BROADER IMPACTS [Please discuss the specific strengths and weaknesses of the broader impacts (including any postdoctoral mentoring plan) and explain your evaluation.]

Broader Impact Strengths: The broader impacts are excellent and diverse and include the training of students, establishing collaborations between US and Brazilian scientists, and establishing modules for a

local museum. The postdoctoral mentoring plan is adequate.

Broader Impact Weaknesses: No weaknesses were identified

4.) SOLICITATION SPECIFIC REQUIREMENTS [If the proposal is a CAREER, OPUS, RCN, LTREB, or RUI, please evaluate the specific parts of the proposal that demonstrate how the PIs will or will not meet the solicitation specific criteria.]
Not applicable

5.) DATA MANAGEMENT PLAN [Please discuss the specific strengths and weaknesses of the data management plan and explain your evaluation.]

Data Management Plan Strengths: The Data Management plan is excellent. The data will be deposited in DRYAD.

Data Management Plan Weaknesses: No weaknesses were identified.

6.) SYNTHESIS AND RECOMMENDATION [Please concisely summarize the main reasons for the panel's final recommendation.]

Synthesis: The proposal seeks to fund a postdoc to analyze
a unique long-term dataset and to test the existence of interactions between fragment size and drought on the demography of an understory plant in the Brazilian rain forest. Although the panel believed this proposal to be quite interesting, multiple problems and limitations were noted: limitations of a single species, conflation of fragment size with frequency- and density- dependence, and some unanswered questions about the analyses.

The panel recommendation is: not competitive

This summary was read by the assigned panelists and they concurred that the summary accurately reflects the panel discussion.

Panel Recommendation: Not Competitive

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