Jens T. Stevens

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Santa Fe, NM, 87508

Thomas Gillespie

Editor, Global Ecology and Biogeography

18 December 2019

Dear Dr. Gillespie:

I am pleased to re-submit the manuscript “Biogeography of fire regimes in western US conifer forests: a trait-based approach”, coauthored with Matthew Kling, Dylan Schwilk, Morgan Varner, and Jeffrey Kane, to be considered for publication as a research paper in *Global Ecology and Biogeography*. The manuscript ID is GEB-2019-0409.

We appreciate the constructive comments provided by the Editor and Reviewers. We recognized two prevailing major suggestions: 1) to refine the language around resilience vs fire-embracing strategies, and 2) to justify and explain the limitations to our study scope. We have taken extensive steps to address these two points. On the former, we have clarified that we are focusing specifically on “resistance” to fire, that is surviving surface fire, and that resilience may involve but does not require traits to regenerate after fire (e.g., lines 76-94 and 337-353). On the latter, we have expanded our discussion section to further clarify the limitations of this dataset (e.g., lines 354-372), including but not limited to the focus on conifers, the avoidance of fire-embracing traits, the avoidance of subspecies-level classifications, and the absence of size-class specific trait data on bark thickness. We have also refined the presentation of our species groupings (Figure 2). Beyond these major revisions, we have also addressed and responded to all other points raised by reviewers.

We believe this paper is much improved as a result of this feedback, and we believe it provides an important addition to the literature in demonstrating how trait data can be modeled and mapped at landscape scale. We expect this will be a particularly valuable contribution to the literature around adaptive fire regimes and forest management, and will be a springboard for a plethora of additional research that will further address a number of limitations appropriately identified by reviewers.

I certify that the accompanying manuscript, and the data contained therein, has not been published and is not under consideration for publication with another journal. All co-authors have approved the current version this manuscript for publication with *Global Ecology and Biogeography*.

Sincerely,

Dr. Jens T. Stevens

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US Geological Survey, Santa Fe NM