Editors-in-Chief, Forest Ecology and Management

22 June 2017

To the Editors:

I am submitting the manuscript “Changing spatial patterns of stand-replacing fire in California mixed-conifer forests” to be considered for publication as an original research paper in *Forest Ecology and Management*.

Stand-replacing fire is simultaneously an important ecological process and a critical forest management concern. Extensive resources are spent annually to prevent large-scale stand-replacing fire and to re-forest landscapes following stand-replacing fire due to dispersal limitation into patches that lack surviving trees. Traditional metrics for measuring and comparing stand-replacing effects across many fires do not explicitly account for the spatial configuration of stand-replacing patches, a critical omission in systems where dispersal from patch edges is necessary for tree regeneration.

In this manuscript we use a novel metric to compare the spatial configuration of stand-replacing patches across 477 fires in California mixed-conifer forests that burned between 1984 and 2015. Patches of stand-replacing fire have become larger and more regularly-shaped over time, increasing the amount of post-fire area that occurs at long distances from live-tree edges. Factors associated with these patches include managing for suppression rather than wildland fire use, being managed by agencies with less history of and ability to use fire proactively, and higher temperatures during the burn period. Opportunities exist to promote stand-replacing fire at smaller spatial scales, particularly if burning under less extreme weather conditions and reduced fuel conditions. We believe this manuscript will be of substantial interest to the readership of *Forest Ecology and Management.*

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. On behalf of my coauthors I have approved the current version this manuscript for publication with *Forest Ecology and Management*.

Sincerely,



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