

Ecography

ECOG-02607

Collins, C. D., Banks-Leite, C., Brudvig, L. A., Foster, B. L., Cook, W. M., Damschen, E. I., Andrade, A., Austin, M., Camargo, J. L., Driscoll, D. A., Holt, R. D., Laurance, W. F., Nicholls, A. O. and Orrock, J. L. 2016. Fragmentation affects plant community composition over time. – *Ecography* doi: 10.1111/ecog.02607

Supplementary material

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Supplementary material

Table A1. The mean proportion of species a local plot relative to the total number of species in the regional species pool. The regional species pool was calculated as the sum of all species found in any treatment, across the entire duration of the study. Local richness was the number of species found, on average, in a local sampling unit (i.e., a single replicate in our study). The proportion is the local richness divide by the regional richness.

Experiment	Regional species pool (gamma)	Mean local richness (alpha)	Mean proportion of species sampled from species pool
<i>Brazil</i>	934	273.27	0.29
<i>WogWog</i>	173	62.03	0.36
<i>Kansas</i>	218	55.03	0.25
<i>Corridor</i>	224	66.58	0.29

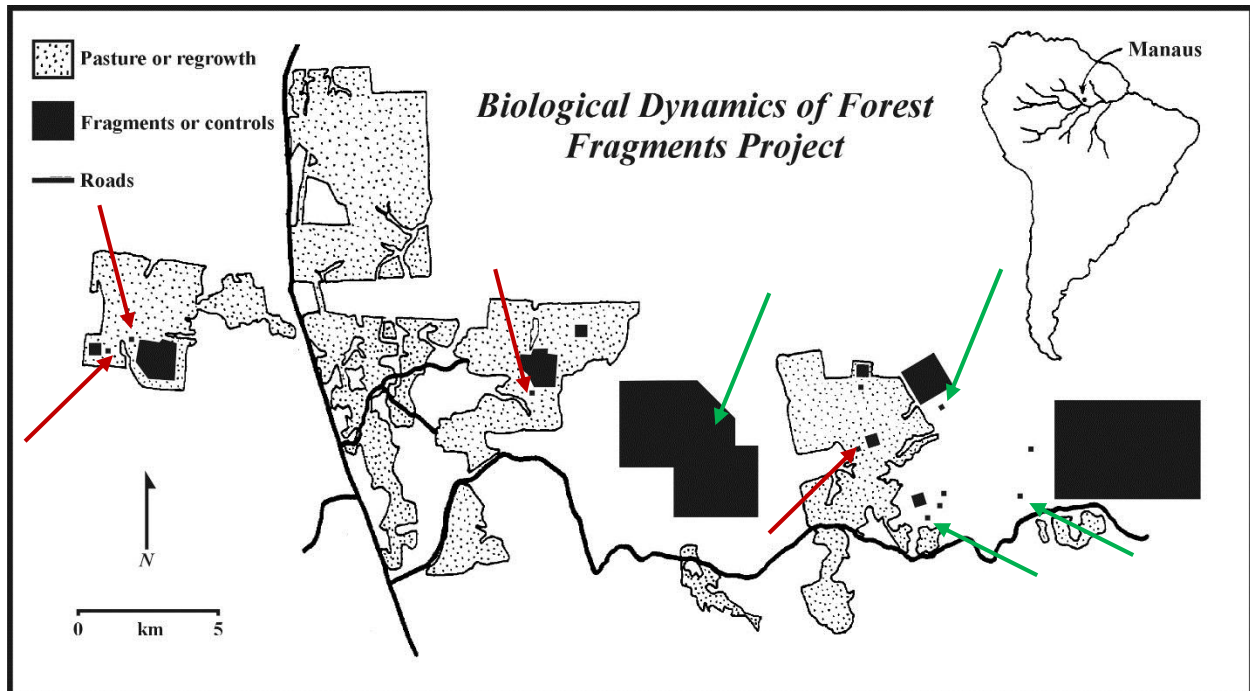


Figure A1. A map of the entire *Biological Dynamics of Forest Fragments Project* (Brazil, located in central Amazonia, 70 miles north of Manaus, Brazil ($28^{\circ} 30' S$, $60^{\circ} W$)). Red arrows point to the “most-fragmented” sites used in this study. Green arrows point to the “least-fragmented” sites, which, in this study, are plots situated in continuous forest. Detailed description of the experimental design can be found in the Methods, and references therein.

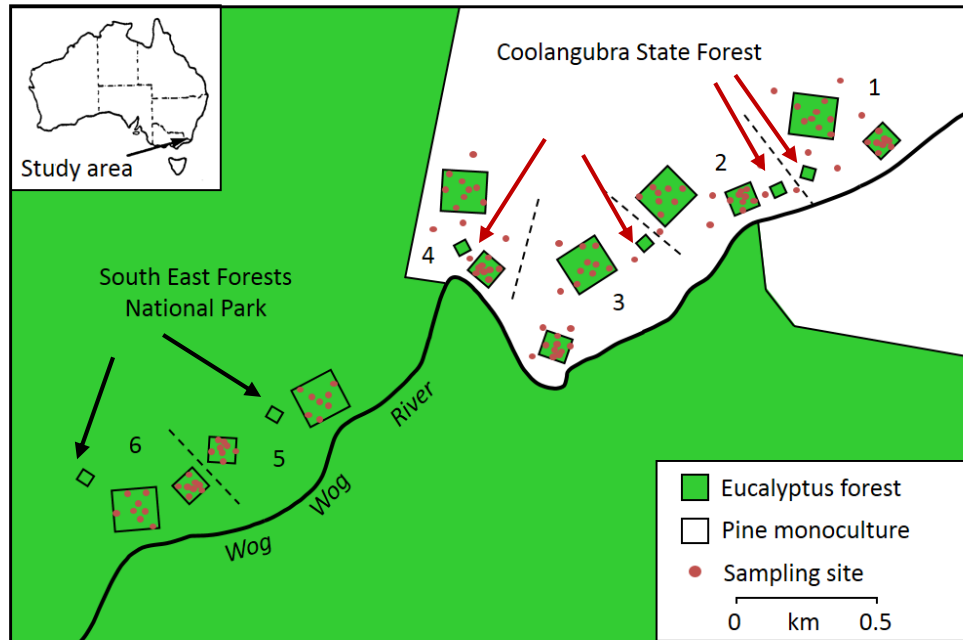


Figure A2. A map of the entire Wog Wog experiment, located in southeastern New South Wales, Australia (37°04' S, 149° 28' E). The most-fragmented treatment in our study comprised replicates of the smallest fragment size in the pine monoculture (red arrows). The least-fragmented treatment comprised equivalent sized plots in the continuous eucalyptus forest (black arrows). Detailed description of the experimental design can be found in the Methods, and references therein.

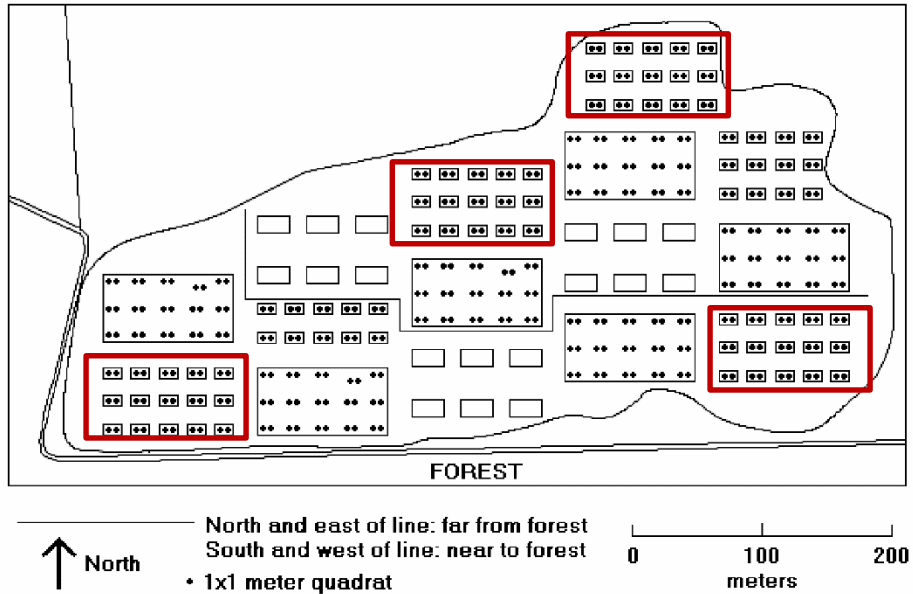


Figure A3. A map of the entire *Kansas Fragmentation Experiment (Kansas)*, located in northeastern Kansas, USA (39° 3' N, 95° 12' W). The most-fragmented treatment comprised four replicate clusters; each cluster contained 15 small patches (red boxes). Two clusters in the experiment were not included in this study because they included fewer small patches. All six large patches depicted here were used as replicates for the “least-fragmented” treatment. Detailed description of the experimental design can be found in the Methods, and references therein.

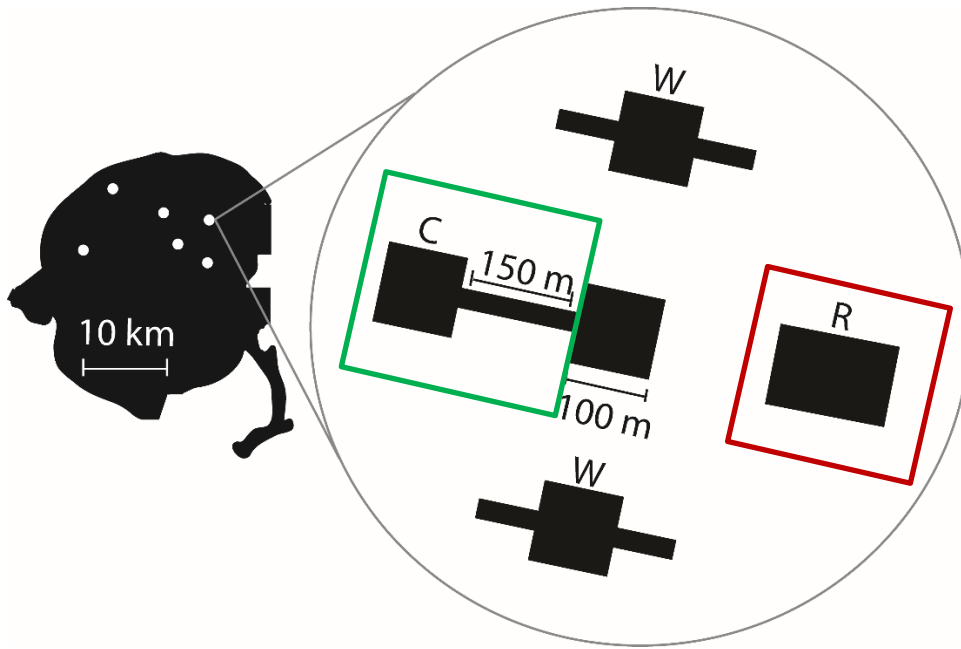


Figure A4. A map of the entire *Savannah River Site Corridor Experiment (Corridor)*, a National Environmental Research Park located in South Carolina, USA (33° 20' N, 81° 40' W). The “least-fragmented” treatment consisted of a patch and the corridor connecting it to another patch (green box). The “most-fragmented” treatment consisted of rectangular patches not connected to another fragment (red box). Detailed description of the experimental design can be found in the Methods, and references therein.

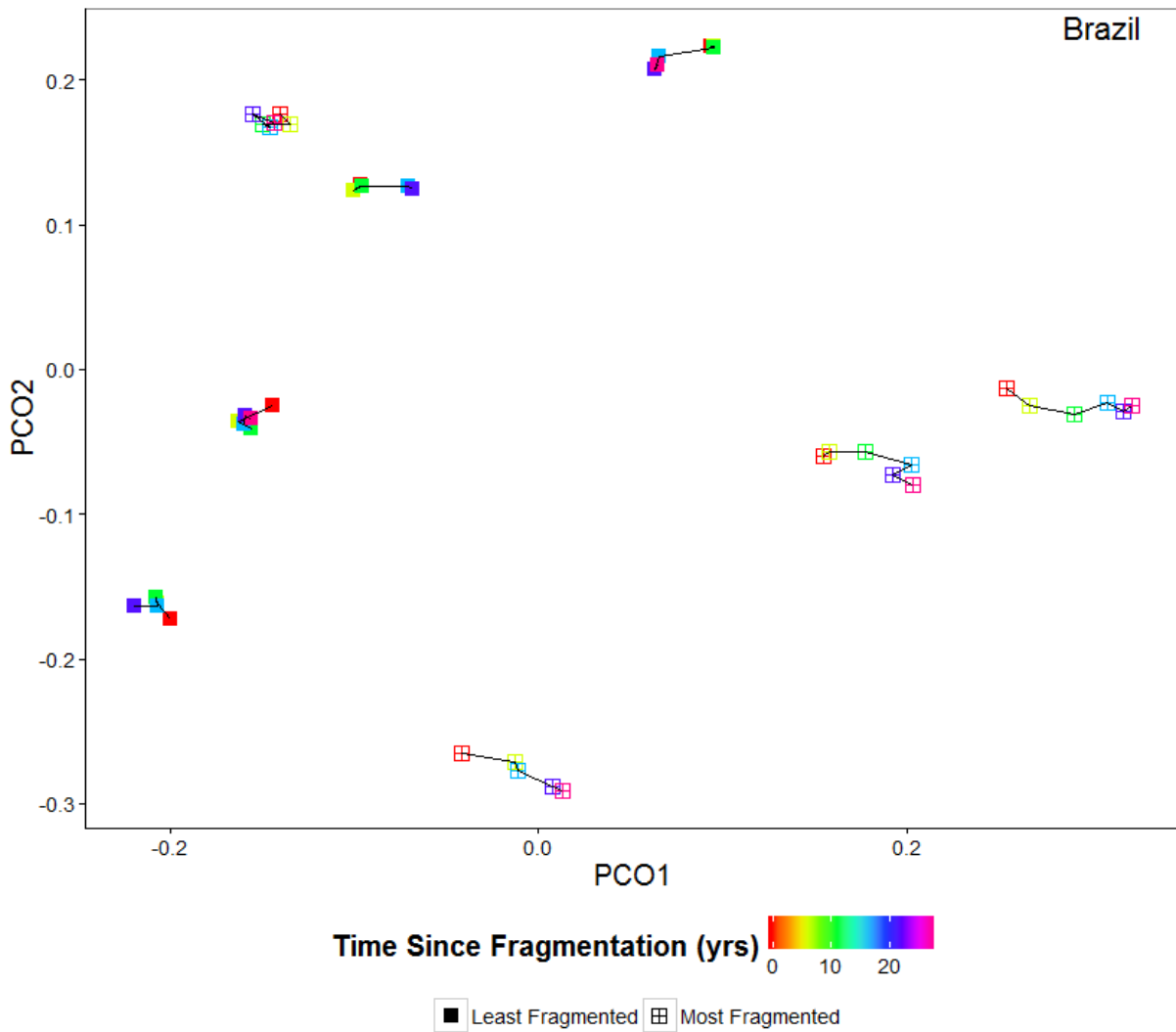


Figure A5. Principal Coordinates Analysis (PCoA) of plant communities in the least (solid; $n = 4$) and most fragmented (checked; $n = 4$) treatments at the Biological Dynamics of Forest Fragments Project in central Amazonia. Lines connect a single community followed through time. Time since fragmentation is reflected by the rainbow color spectrum, with red (0 yrs) depicting pre-treatment data.

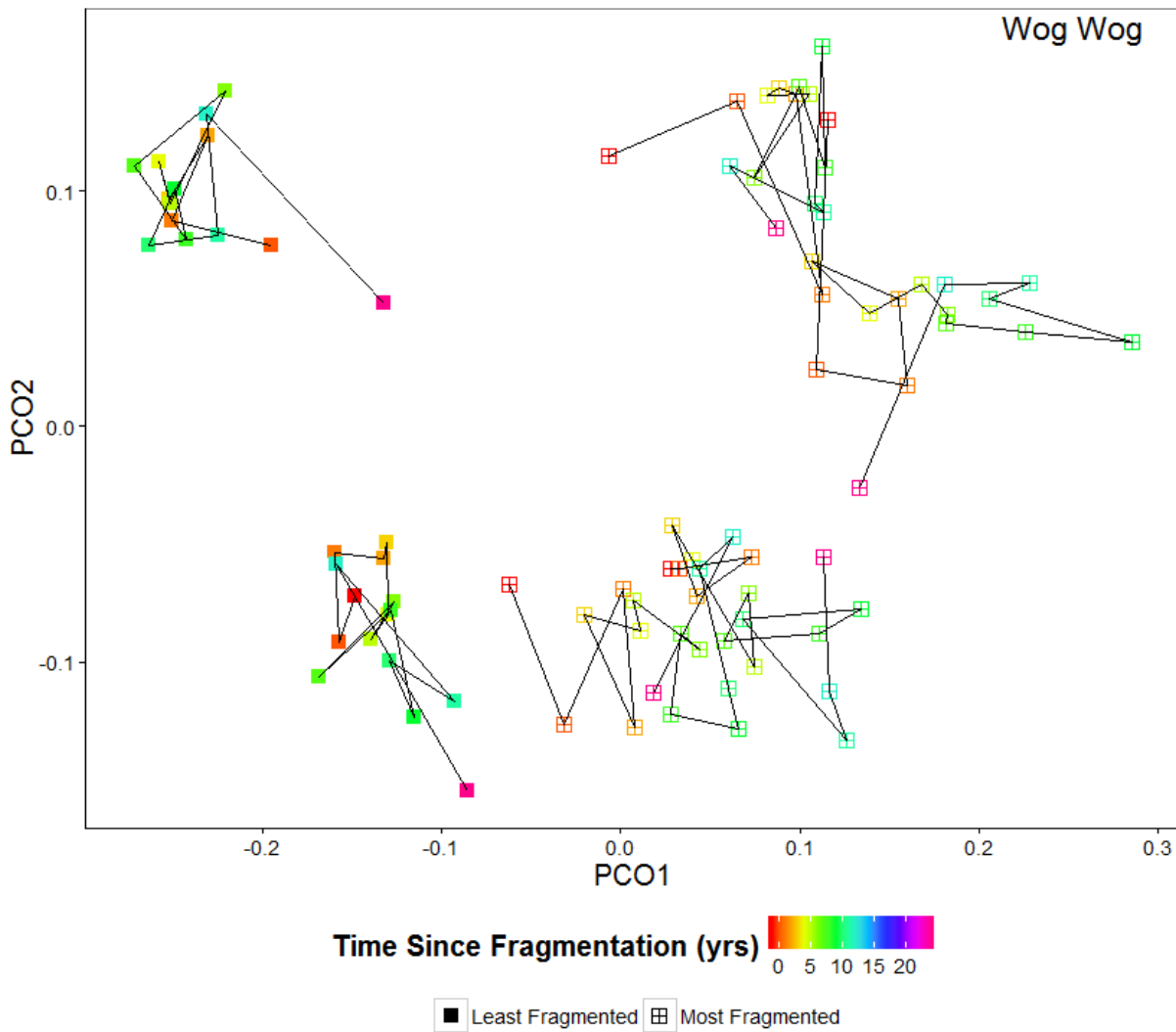


Figure A6. PCoA of plant communities in the least (solid; $n=2$) and most fragmented (checked; $n=4$) treatments at the Wog Wog Fragmentation Experiment located in central Australia. Lines connect a single community followed through time. Time since fragmentation is reflected by the rainbow color spectrum, with red (-1 and 0 yrs) depicting pre-treatment data. In this figure, replicates for the most-fragmented treatments overlap substantially in multivariate space.

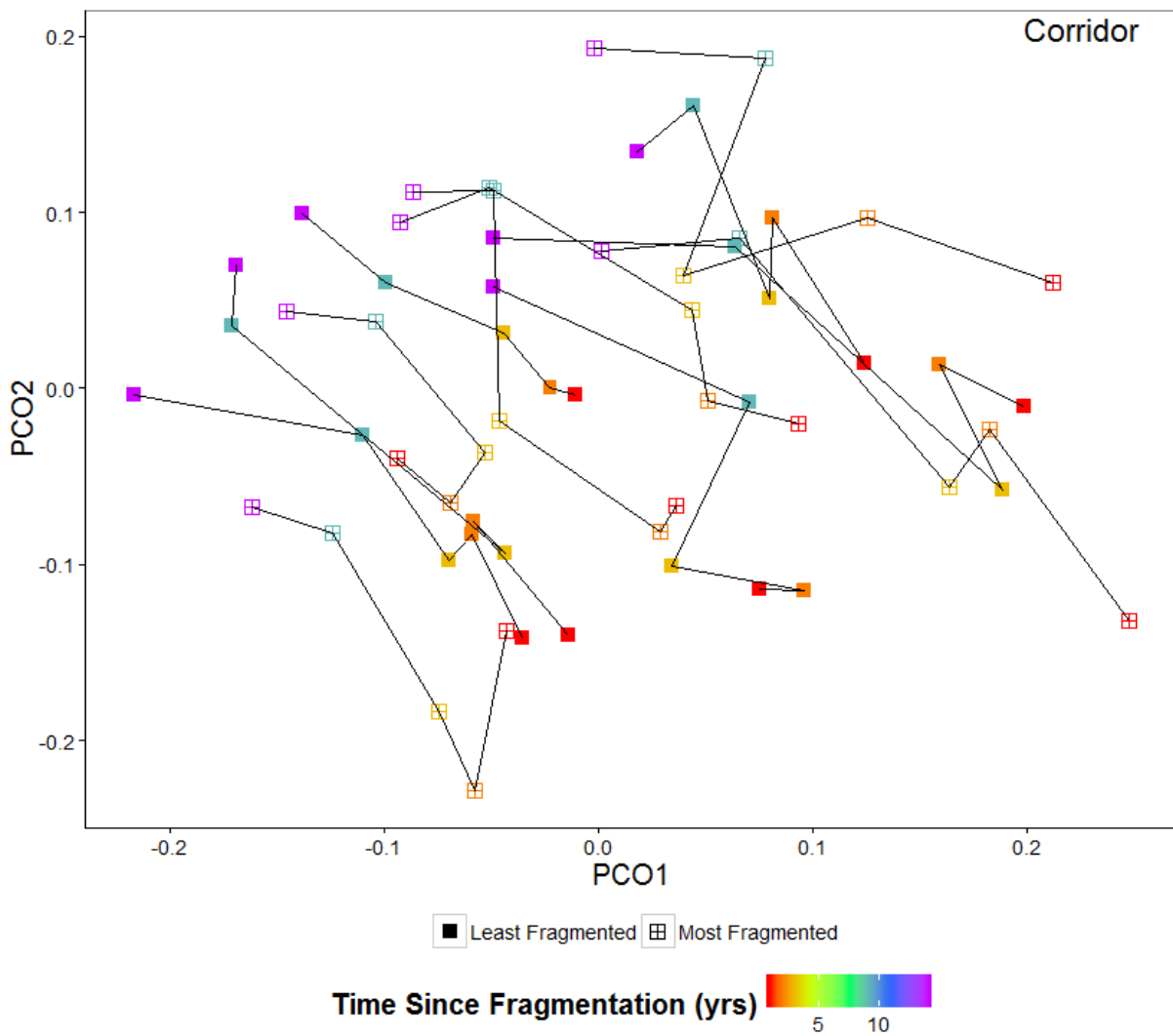


Figure A7. PCoA of plant communities in the least (solid; $n = 6$) and most fragmented (checked; $n = 6$) treatments at the Savannah River Site Corridor Experiment in South Carolina, U.S.A. Lines connect a single community followed through time. Time since fragmentation is reflected by the rainbow color spectrum, with red (1 yr) depicting the first year post-fragmentation. No pre-treatment data exist at this site.

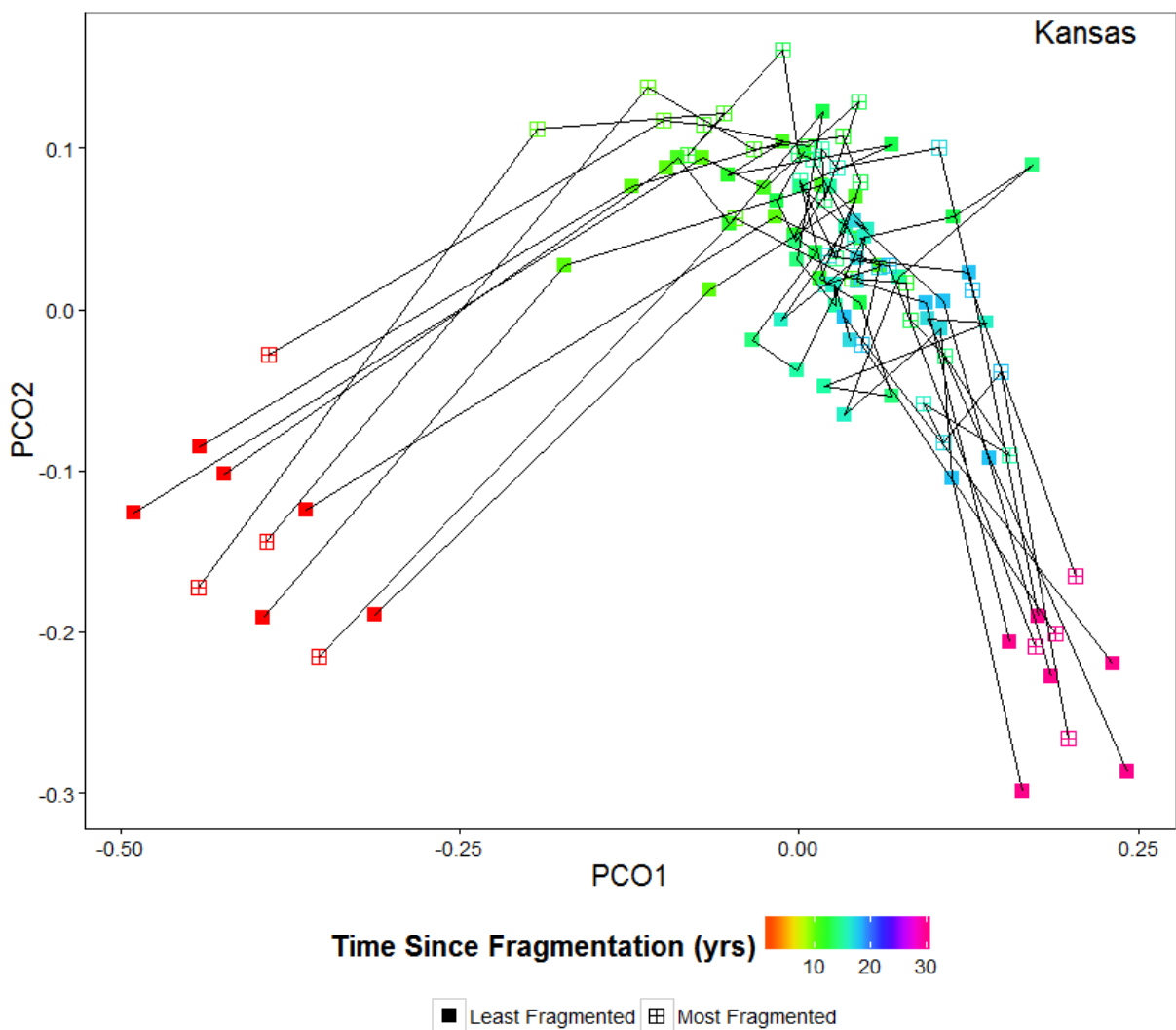


Figure A8. PCoA of plant communities in the least (solid; $n = 6$) and most fragmented (checked; $n = 4$) treatments at the Kansas Fragmentation Experiment in Kansas, U.S.A. Lines connect a single community followed through time. Time since fragmentation is reflected by the rainbow color spectrum, with red (1 yr) depicting the first year post-fragmentation. No pre-treatment data exist at this site. Because of the horseshoe distortion, these data are also plotted using NMDS (Fig. A5).

