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Earth System Dynamics
Discussions

Interactive comment on "River logjams cause frequent large-scale forest die-off events in Southwestern Amazonia" *by* Umberto Lombardo

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Lombardo's research formally documenting a new type of large-scale Amazonian forest disturbance is very interesting and important to range of disciplines (as he notes). Prior to this study a framework for understanding large-scale disturbance dynamics of this region was absent. I have worked in the area previously as a forest ecologist and at the time, we had no more than an anecdotal understanding of the forces that might be structuring the forest at large spatial scales in the region. Now Lombardo presents evidence for the prevalence and dynamics of logjam disturbance, virtually completely ignored in the tropical ecology literature. With luck this important research will lead to a cascade of research in other disciplines, including for example (i) adaptation of plant life histories to this disturbance regime (ii) adaptation of aquatic communities to this disturbance regime (iii) implications for sustainable forest management (iv) implications for the provision of ecosystem services for pre-contact and current human populations

(beyond just impacts on carbon dynamics) and (v) prevalence of this logjam disturbance in other regions of the Amazon. Reviewers more familiar with the technical GIS methods used in this paper may have some minor technical comments but from my point of view as a non-GIS specialist the paper is important and well done and can be published as is.

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