

## ***Interactive comment on “Estimation of Coarse Woody Debris Stocks in Intact and Degraded Forests in the Brazilian Amazon Using Airborne Lidar” by Marcos A. S. Scaranello et al.***

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Received and published: 4 July 2019

Response to anonymous reviewer #2, “Estimation of Coarse Woody Debris Stocks in Intact and Degraded Forests in the Brazilian Amazon Using Airborne Lidar”

We thank you for their helpful comments. We respond to all concerns and suggestions below.

Reviewer #2.

Comment: I don't like the term “standing CWD” because it sounds like an oxymoron. The terms “standing dead wood” or “fallen dead wood” make sense, but the word “de-

C1

bris” strongly implies that the dead wood has already fallen. Similarly, to say “fallen CWD” sounds redundant. Alternatively, call the “standing CWD” snags, and the “fallen CWD” simply “CWD”.

Response: Both reviewers agree that “debris” connotes fallen wood found at the forest floor. We understand this concern and we will make the following changes throughout the paper including in the title: (1) “woody debris” will be replaced with “dead wood” and will be further described as either “standing” or “fallen”; (2) “coarse woody debris” will be replaced with “coarse dead wood” that will be abbreviated as “CDW.”

Comment: Reading the methods on the spatial layout of the sample plots and transects, I couldn't quite work out whether all the locations sampled were wholly contained within the extent that lidar metrics were calculated. Clarifying the description would help, as would improvements to Fig. 1 to also show the area within which the lidar metrics were calculated.

Response: As noted on page 4, lines 9-11, “The airborne lidar data used in this study were collected between 2012 and 2015, covered a total area of 14,870 ha and overlapped with 103 CWD transects (48 km of total length sampled within 6 months of the lidar airborne campaigns).” We will write two sentences to clarify. In the first, we will describe the airborne sampling and in the second we will describe the ground sampling indicating that all ground sampling locations were wholly contained in the airborne lidar areas of interest. We improved Fig. 1 by adding the canopy height model scene from the AND site as an example of the lidar data covering the field transects for sampling standing and fallen dead wood.

Comment: Fig. 5 caption. The predicted versus observed means are already shown in the figures themselves and do not need to be cluttering up the caption. Just add the +/- standard errors to the figures as well, below the means.

Response: We feel that a few more numbers in the caption are easier to understand than a figure cluttered with uncertainty estimates. The figure is already complex. We

C2

prefer to leave the figure and caption as submitted.

Comment: [p. 2] L5. Delete the “and” before “burned”, and add a comma after “burned”, so this sentence makes sense.

Response: We will implement this suggestion.

Comment: [p. 3] L10. Do you mean to say “tree” or “live” aboveground biomass? Because the CWD pool could be considered part of aboveground biomass.

Response: We will add the word “live” for clarity.

Comment: [p. 3] L13. Here and elsewhere, more commas are advised. If a list, add commas to the item preceding the “and”. In this case, commas are advised after “17%”, after the first “burning”, and before “respectively”.

Response: We will implement this suggestion.

Comment: [p. 3] L26. The second “the” should be deleted. So also could be the first “the”.

Response: We will delete both uses of “the” referred to in the comment.

Comment: [p. 3] L31. Enclose the phrase “and based on a recent comprehensive review (Marchi et al., 2018)” in commas.

Response: We will implement this suggestion.

Methods Comment: [p. 4] L10. Data “were” not “was”.

Response: We will implement this suggestion.

Comment: [p. 5] Next page, L11. The two citations should not be followed by commas before the year published.

Response: We will remove the two commas.

Comment: [p. 5] L20. Either “at” or “with” but not “at with”.

C3

Response: We will delete “at.”

Comment: [p. 6] Next page, L29. Change “median of age” to “median age”.

Response: We will implement this suggestion.

Discussion Comment: [p. 10] Section 4.2, L15. Need the verb “are” before “similar”.

Response: In this case, we will add the verb “were” to match the past tense used throughout the paragraph.

Comment: Last paragraph, L7. Need a comma before “and”, which separates two complete sentences.

Response: We will add the comma as suggested.

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Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2019-75>, 2019.

C4