

Interactive comment on “Taking off the training wheels: the properties of a dynamic vegetation model without climate envelopes” by R. A. Fisher et al.

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I find this paper to be clearly written, well argued, and a welcome contribution to the literature. The authors have done an excellent job summarizing the past literature on the topic, and have thus created a concise and consistent description of the field that is extremely readable. Similarly the appendix (technical note) is very clear and readable. I am eager to share their work with colleagues and students.

Reply: We thank the referee for the kind comments, and are very pleased they plan to share the work with colleagues.

C1464

Minor comments

pg 3310 ln 10 - This seems like a training wheel. You acknowledge this below (pg 3321 ln 16-17, "it is subject to a similar circularity of logic as the original climate envelope approach"), but I think it is worth discussing here as well. Otherwise the reader is left wondering how this is different from a training wheel until much later in the paper.

Reply: We have added a pointer to our discussion of this issue in this paragraph. “We discuss the implications of direct prediction of leaf lifespan from climatic drivers further in the discussion.”

Figure4 4-12 - Please (please!) consider choosing a different colormap for your images. The jet (or rainbow) colorbar is difficult to see for people who are colorblind and has some changes in hue which draw attention to features unnecessarily. I would strongly prefer a different set of colors.

Reply: Thank you for pointing out this issue, and apologies for our lack of foresight into this problem. Matlab have, in later versions, changed the default color scheme from ‘jet’ to ‘parula’ in order to address the same two criticisms that you mention. (<http://blogs.mathworks.com/steve/2014/10/20/a-new-colormap-for-matlab-part-2-troubles-with-rainbows/>) . We do not yet have the new version of matlab on our servers, so I attempted to recreate the parula scheme by hand, and this is now used in the new figure set. The new scheme has no red, and hopefully will thus alleviate the problem.

pg 3304 ln 17 typo?: "proscribe"

C1465

Reply: We changed this to “we assume here that there are no other differences between the properties of the ENT and DBT plant types.”

pg 3323 ln 6-10 I don't understand this sentence.

Reply: We changed this to : “The idea behind optimality models is occasionally undermined by studies using a game theory perspective, which show that the optimal plant strategy in isolation differs somewhat from the optimal strategy that can compete with other plants”

pg 3325 ln 16-23 Optimal parameter estimation has been done for limited regions for the ED model - i.e. Medvigy et al. 2009 It seems worth mentioning this here

Reply: We have added the Medvigy reference to the discussion of parameter estimation.

Figure 3 - consider swapping the yellow and green colors. Yellow is generally harder to see, and there are only very few green points on the plot.

Reply: We have swapped these colors round in the newer figures.

Tech note: The placement of the footnote markers at the beginning of the paragraph is a bit odd. It took me a while to figure out what those were.

Reply: We have changed the footnotes so that the reference numbers now all occur their own line.

C1466

Interactive comment on Geosci. Model Dev. Discuss., 8, 3293, 2015.

C1467