

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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Thank you for the comments and the clarification here. I note that these comments pre-date the publication of an updated version of the CTEM DGVM also in GMDD:

Melton J.R. and Arora V.K. Competition between plant functional types in the Canadian Terrestrial Ecosystem Model (CTEM) v. 2.0. Geosci. Model Dev. Discuss., 8 4851-4948. doi:10.5194/gmdd-8-4851-2015, 2015.

The discussion on the extent to which plant functional types are used in CTEM is of C1462

relevance to this paper. We will try and incorporate a reference to it in the new version of the manuscript. Accordingly, also, we will update the description of the CTEM. We would be interested in whether this phrasing adequately and accurately describes the model processes?

“Another class of model is derived from the Lotka-Volterra representation of competitive ecological processes (Cox et al. 1998, Arora & Boer 2006. The TRIFFID model (Cox et al. 1998), specifies a ‘dominance hierarchy’ for each pairwise competitive interaction between plant types that represents the expected outcome of competition between any two plant types with similar growth rates. Thus, the distribution of plants is also not a direct function of their physiological performance or dominance over resources but is also controlled by pre-defined rules based on existing vegetation distributions. The CTEM model (Arora & Boer 2006; Melton & Arora 2015) imposes dominance hierarchies between trees and grass, and climate envelope constraints to define the maximum range of alternative tree plant functional types.”

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