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Applying the FATES Dynamic Vegetation Model to the Western US

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In order to understand climate effects on ecosystem structure and composition— and consequent feedbacks to the climate system—in the western US, we must develop and apply process-based dynamic vegetation models that can represent the key processes that govern ecosystem structure. The FATES vegetation model predicts ecosystem structure as an emergent outcome of competition by plants for resources, including water and light. Here we describe initial attempts to apply the FATES model to western US ecosystems, to lay a foundation for understanding climate impacts and feedbacks in the region.