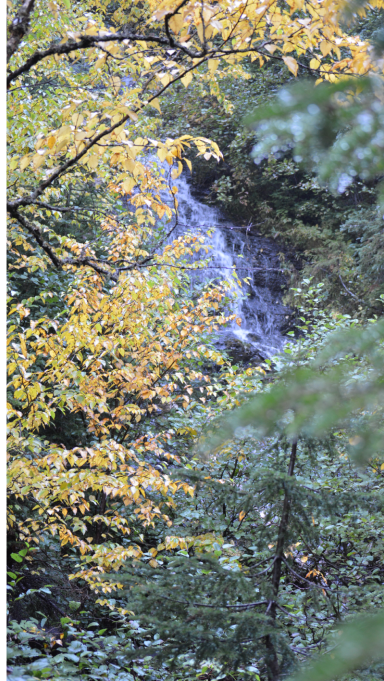


## DIFFICULT MIGRATION OF TEMPERATE TREE SPECIES IN THE BOREAL FOREST UNDER CLIMATE CHANGE?

**Steve Vissault, Matthew Talluto,  
Isabelle Boulangeat and Dominique Gravel**



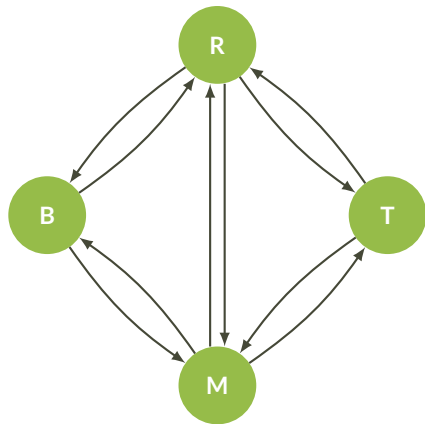
Quantifying and mapping the impact of climate change  
on forest productivity in Eastern Canada



frame content

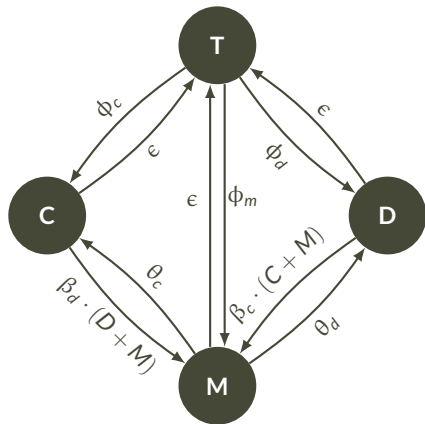
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## NEW APPROACH STATE AND TRANSITIONAL MODEL



- Landscape modelling scale
- 4 States (R,B,T,M)
- R corresponds to a post-disturbance patch
- Probability of transition given climatic conditions
- Discrete time and stochastic model

## METHODS STATE AND TRANSITIONAL MODEL



### Parameters:

- $\beta$ : Colonization rate
- $\theta$ : Succession rate
- $\phi$ : Regeneration functions
- $\epsilon$ : Disturbance rate.

### Each rate depends of:

- Proportion of states available in the system
- Climatic conditions encounter by the patch