

Question: How did the primeval forest look like before human impact?

Possible application: Conservation management, nature-friendly land use practices, forest restoration, etc.



**High Forest Theory** 

- . Closed-canopy mature trees
- . Regeneration in canopy gaps
- . Herbivore has no impact
- . Bottom-up

**Alternative Answers** 

Wood Pasture Hypothesis



- Cycling process open land - shrub dominating - wood pasture - break-up
- . Regeneration in open period
- Herbivore drives the whole process
- . Top-down

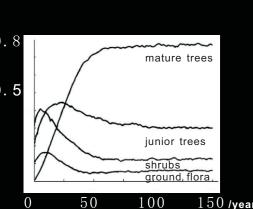
## Method

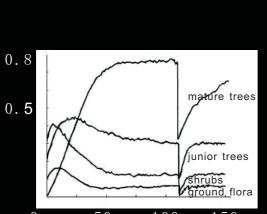
Vs.

10\*10 patches

high forest

Lotka-Volterra wood pasture

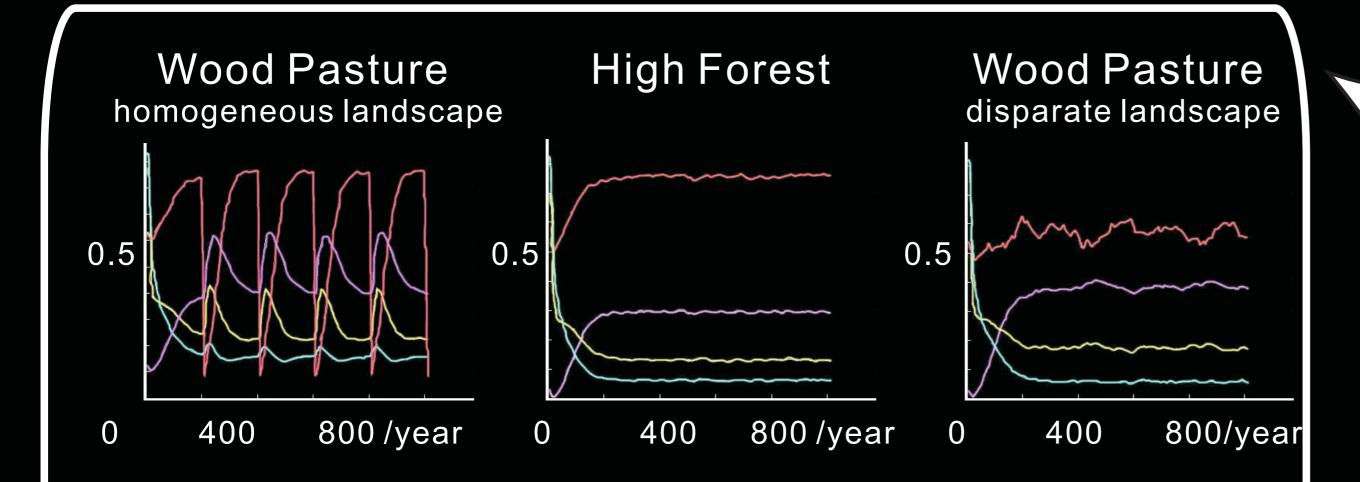




Catastrophes

mature trees understory

### Results



Significant Difference	High Forest Vs. Wood Pasture (homogeneous landscape)		High Forest Vs. Wood Pasture (disparate landscape)	
	Spatial	Temporal	Spatial	Temporal
Canopy				
Understory				
Ground				

# Conclusions

These two hypothesises suggested 1.different temporal patterh on homogenous land, but similar spatial pattern.

- 2. different temporal and spatial pattern on disparate land.
  - 3. Canopy differs most under two different dynamics.

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