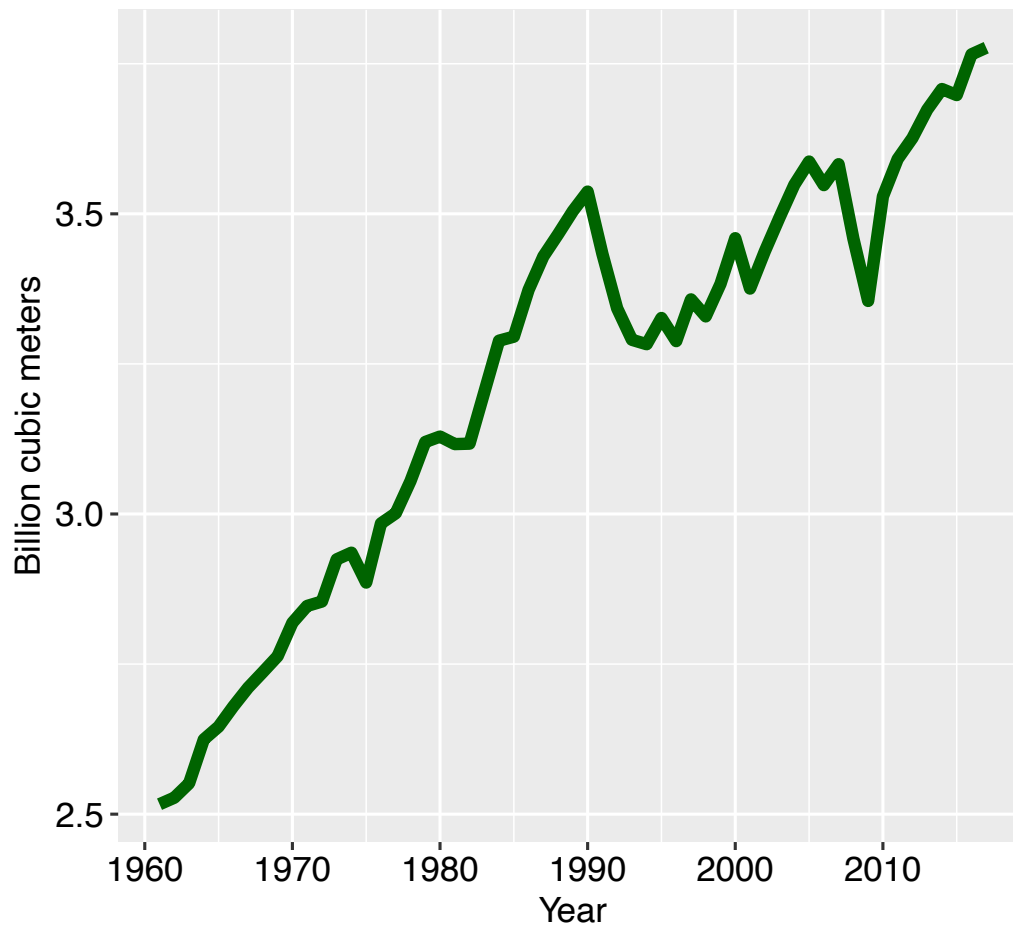


An aerial photograph of a vast, dense forest of evergreen trees, likely spruce or fir, covering rolling hills. In the distance, a range of blue mountains stretches across the horizon under a clear, light blue sky. The text "A TRIAD experiment in the Elliott Forest: Conceptual Background" is overlaid in white, centered on the image.

A TRIAD experiment in the Elliott Forest:
Conceptual Background

Global roundwood production



Source: FAO

Sharing versus sparing in agricultural systems

Reconciling Food Production and Biodiversity Conservation: Land Sharing and Land Sparing Compared

Ben Phalan,¹ Malvika Onial,¹ Andrew Balmford,¹ Rhys E. Green^{1,2}

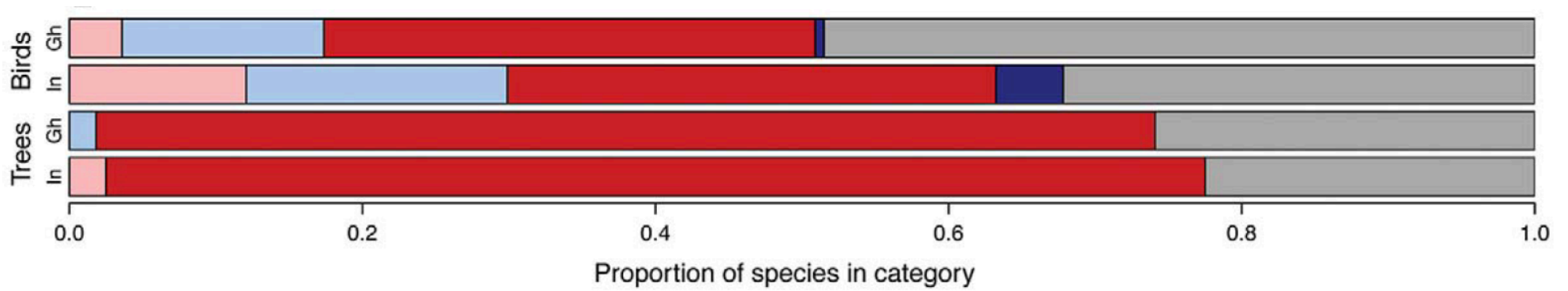
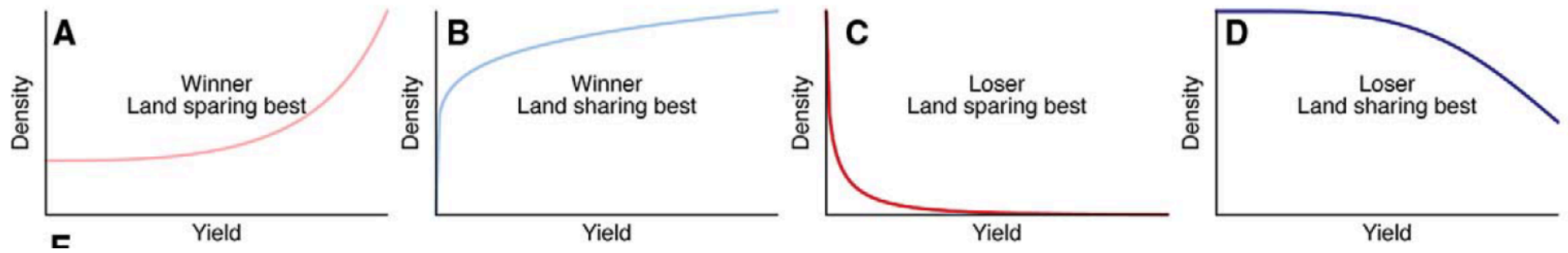
www.sciencemag.org **SCIENCE** VOL 333 2 SEPTEMBER 2011



Reserves + intensive agriculture




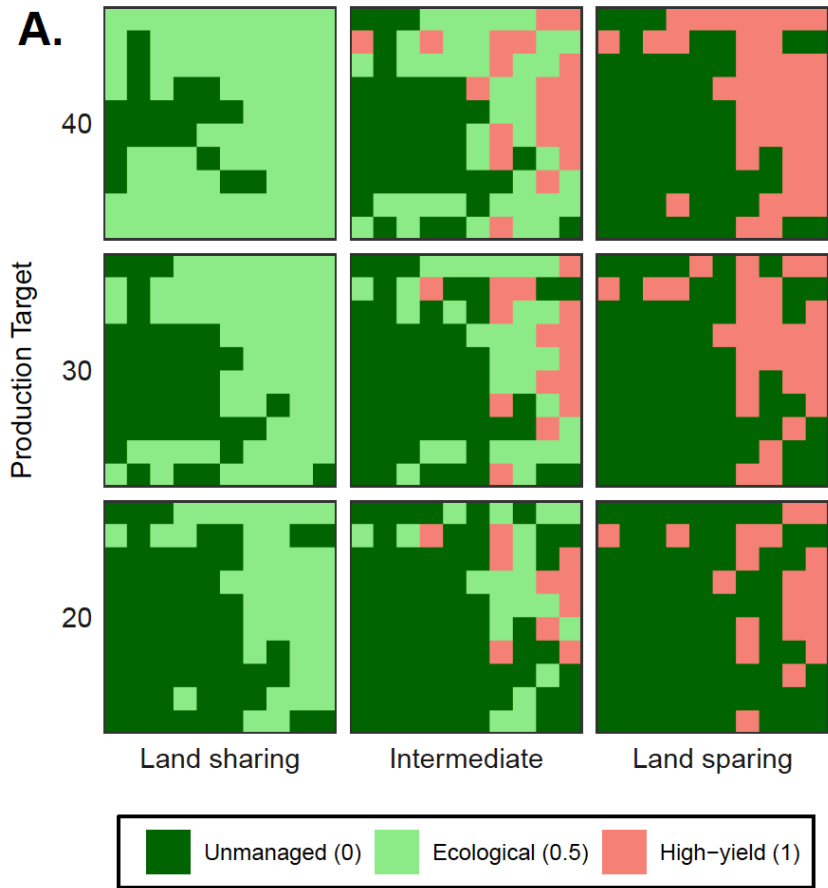
"Soft" (green) agriculture



Transferability of Sharing-Sparing ideas to forestry?

- Most sharing-sparing studies have been done in the tropics
- Forests \neq agriculture: there is good reason to believe that the proportion of 'sharing' associated species is higher in managed forest landscapes (natural disturbance associates)
- In forest systems, there is potentially greater opportunity for non-dichotomous approach (gradient of options)

- 
- Plantation forestry creates a steady, uniform and predictable supply of wood-fiber.
 - High production on a small land area potentially reduces harvest pressure on other forests.



Preserving nature through intensive plantation forestry: The case for forestland allocation with illustrations from British Columbia

by Clark S. Binkley

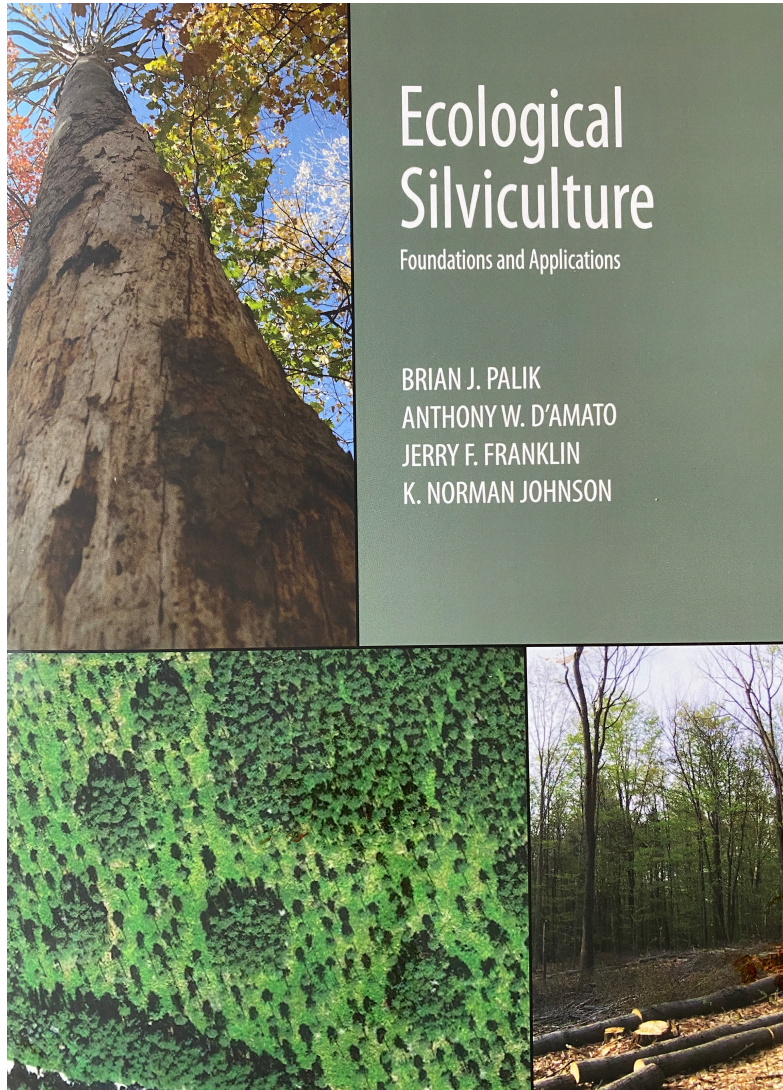
Dean, Faculty of Forestry, University of British Columbia

TRIAD zoning in Quebec: Experiences and results after 5 years

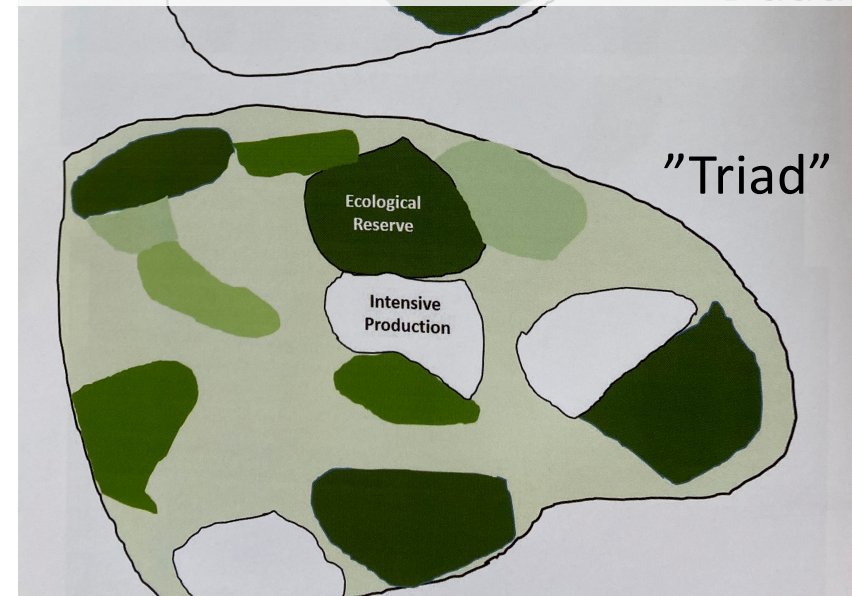
by Christian Messier¹, Rebecca Tittler¹, Daniel D. Kneeshaw¹, Nancy Gélinas², Alain Paquette^{1,3}, Kati Berninger¹,
Héloïse Rheault^{1,3}, Philippe Meek⁴ and Nadyre Beaulieu³

Importance of testing triad

- Planted forest area has increased by over 105 million ha since 1990
- Planted forests now account for 7 percent of the world's forests and 33% of roundwood production
- Is this the best direction for production of the world's timber?
- 70% of terrestrial biodiversity found in forests



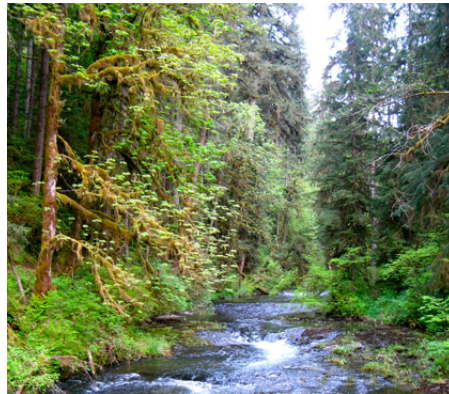
- Reduced timber production
- Either reductions in society's demands for timber or...
- Export of environmental consequences to other jurisdictions



Hypotheses/ Predictions



Marbled murrelet



Water quality



Carbon storage



Early seral species



Recreation

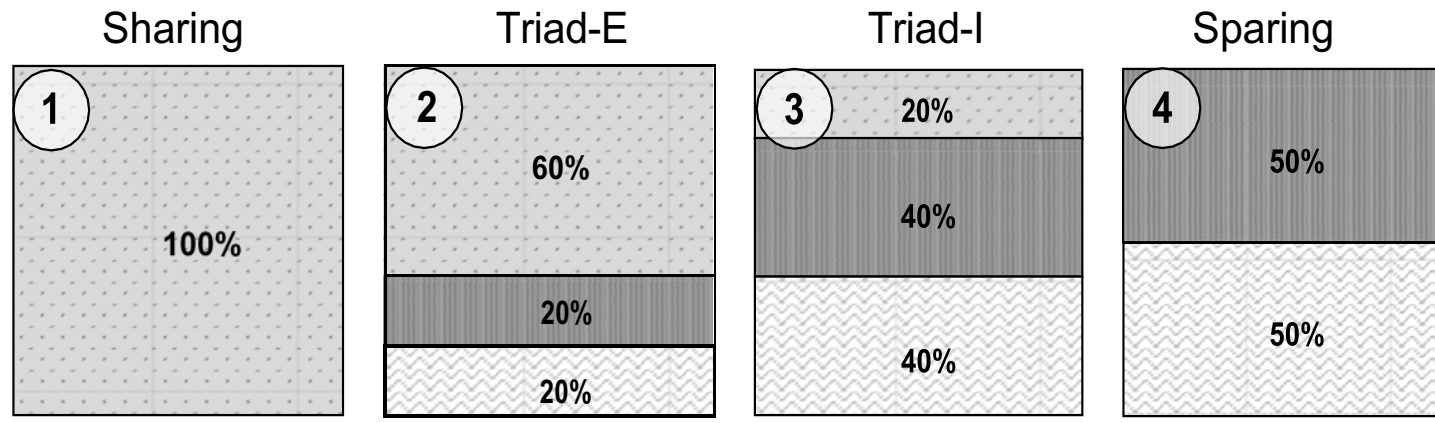


Social acceptability



Landslides

Gradient of Management Approaches



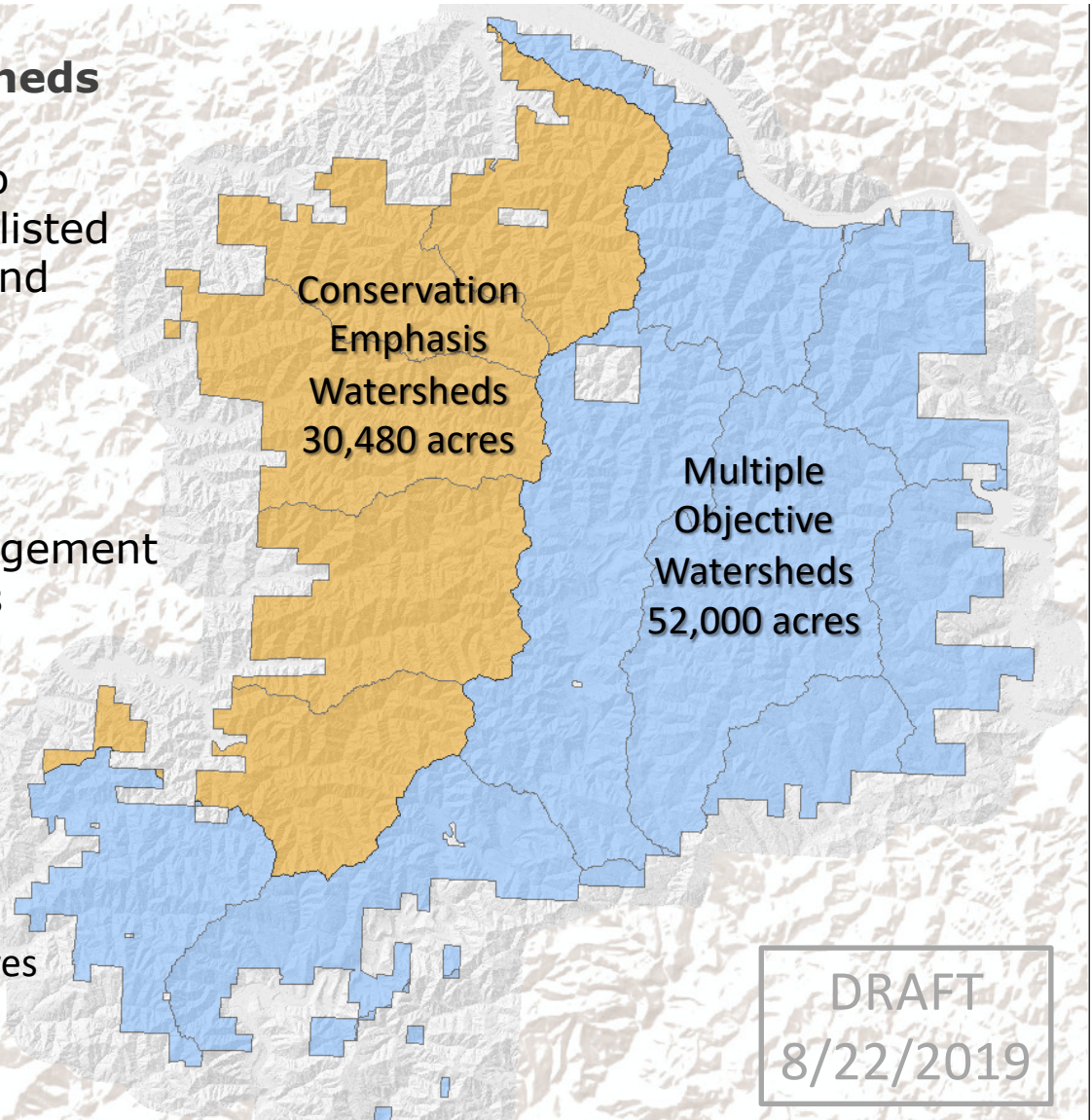
DRAFT
8/22/2019

Conservation Emphasis Watersheds

- Protected areas designated to prioritize the conservation of listed species and their terrestrial and aquatic habitats.

Multiple Objective Watersheds

- 46 sub watersheds
- Replications of the four management treatments, exploring various allocations for balancing the need for timber harvest with other ecosystem services

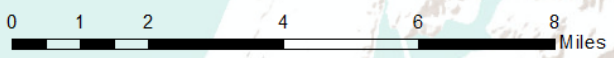
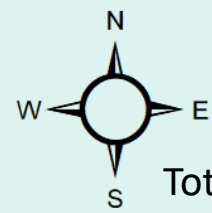


Conservation Emphasis Watersheds
30,480 acres

Multiple Objective Watersheds
52,000 acres

Total Analysis Area = 82,480 acres
DSL Lands Only

DRAFT
8/22/2019



Application to other jurisdictions

- Nova Scotia implementing in near future (Lahey Report) but with no science planned
- New Brunswick considering (conversations between JDI, DNR, and Nature Conservancy)
- Potential for additional collaboration: (1) Sabah, Malaysia, (2) Tasmania

TRIAD in Sabah?



Intensive

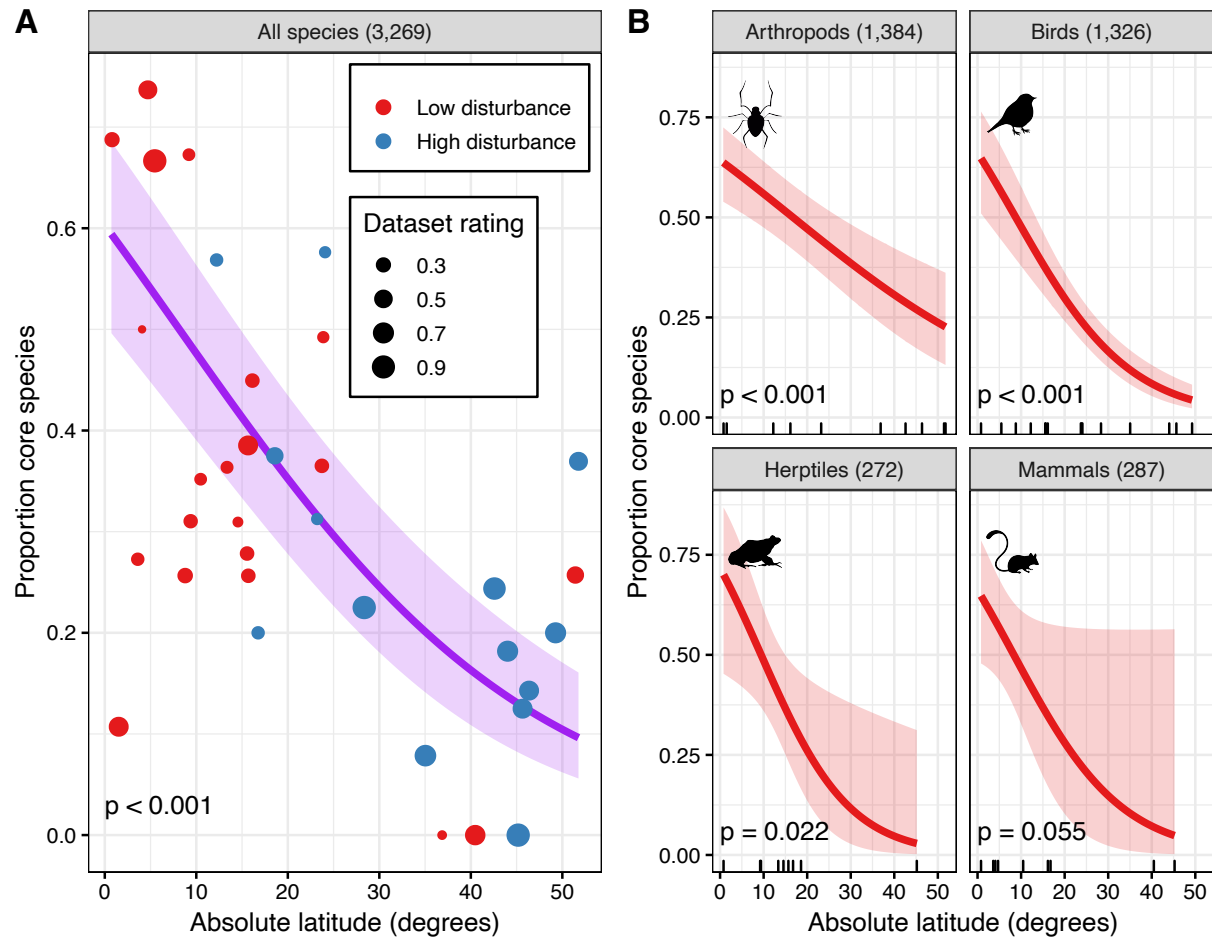


Reduced-impact



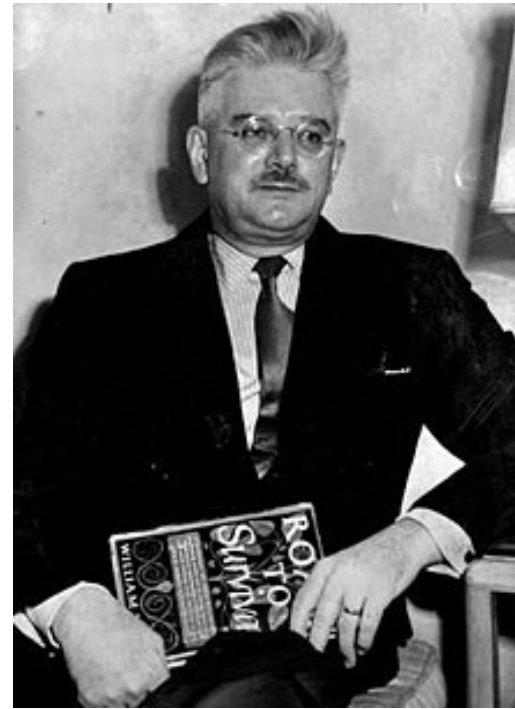
Reserve

Results of
TRIAD study
at Elliot
might not be
“stationary”





Norman Borlaug



William Vogt