What happens with seedlings during spruce budworm outbreaks?

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1. Introduction

Spruce budworm outbreak and silvicultural practices are important drivers of forest ecosystem dynamics.

2. Study area and experimental design

20 sites located in the boreal forest of the North Shore region.

3. Methodology

Stand variables
- Stand type
- Harvesting methods

Seeding variables
- Specie
- Cumulative defoliation
- Height
- Spatial location

4. Results

Objectives:
Evaluate the defoliation of conifer seedlings on the basis of stand characteristics and seeding characteristics.

Economics impacts

Evaluating the impacts on seedlings

5. Implications for forest management

We demonstrate an important role of harvesting methods and stands composition on the severity of defoliation for conifer regeneration. Those factors need to be considered in future forest management. We conclude that partial cutting offers a good substitute that protects conifer seedling from defoliation caused by spruce budworm on conifer regeneration.

References

Lavoie, J., Montoro Girona, M., Grosbois, G. and Morin, H. Does the Type of Silvicultural Practice Influence Spruce Budworm Defoliation of Seedlings? Ecosphere 2021, 12 (4) DOI: 10.1002/ecs2.3506.

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