Pileated woodpeckers' feeding resources and behaviours are influenced by land use in Canadian boreal forest.

Presentation

By Eve-Line Bérubé Beaulieu

1 Introduction

Pileated woodpeckers

- Large size = large cavities
- Old forests. Feeding : carpenter ants

Threats

- Less and less: mature forests, large trees, dead trees

Problem

- Science focus on nidification
- What about foraging?

How can agriculture and forest management impact:

Forest characteristics?

→ H: Younger forests / pioneer species

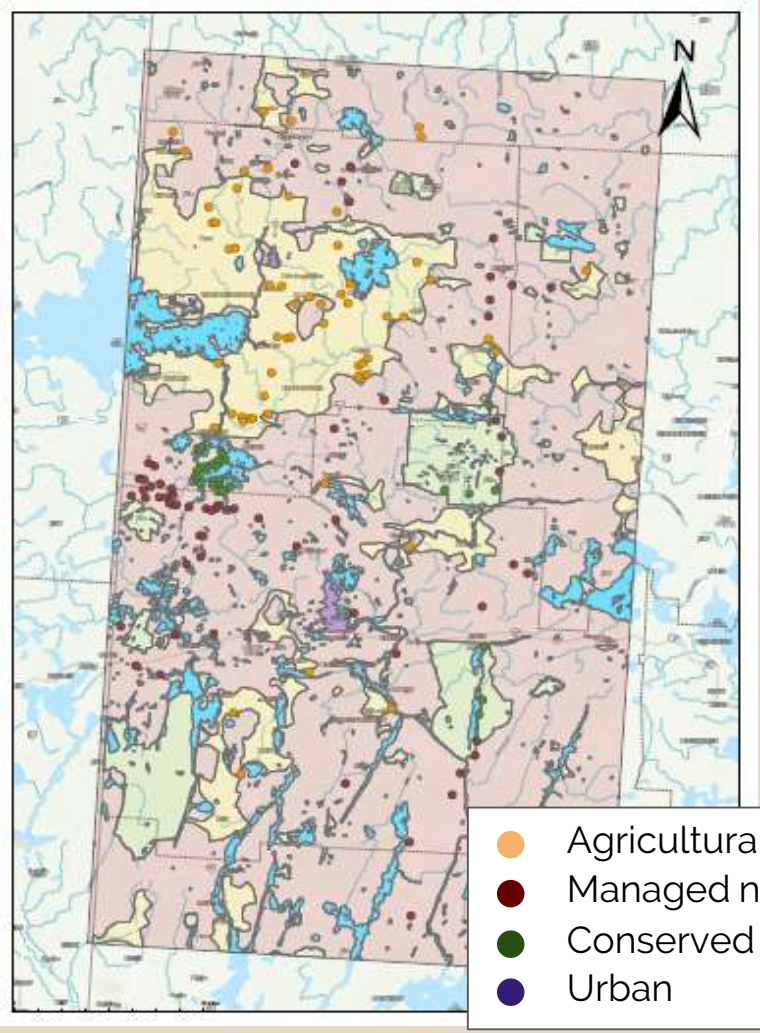
Resources availability?

→ H: Less resources

Pileated woodpecker's selection?

→ H: Less used / tree preferences unchanged

Study area: Abitibi ouest



2 Methods

Ecoforestry maps :

- Landscape delimitation
- Natural and residual mature forest stands

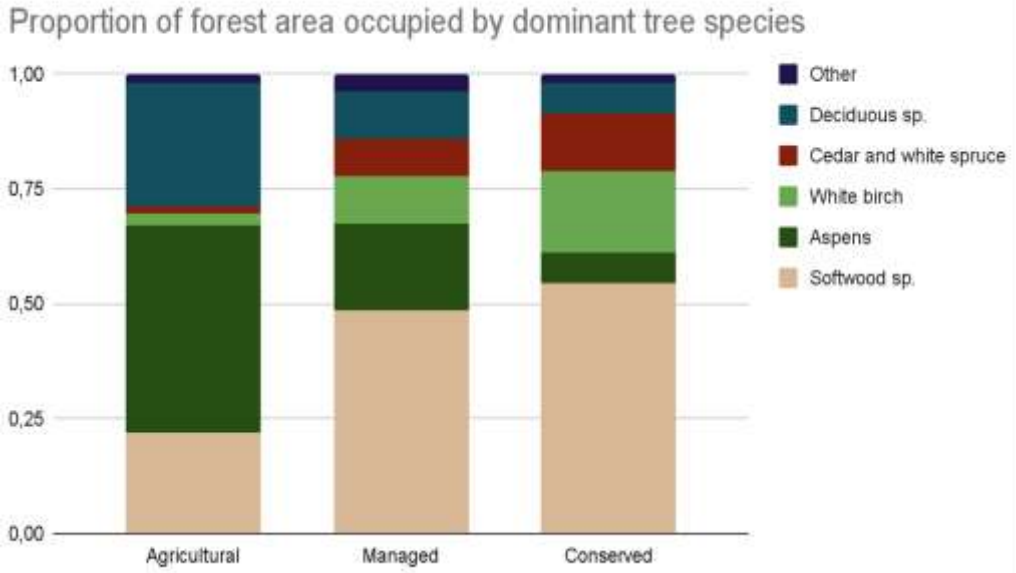
Inventory / caracterisation:

- Trees
- Feeding cavities
- Ant traps (3/trees x 12 x 10 stands/landscapes)

Statistical analysis:

- Maps analysis
- GLM / GLMer
- G test

2.1 Results



Age

→ Older forests in conserved areas

Tree species

→ More aspens / deciduous in agricultural

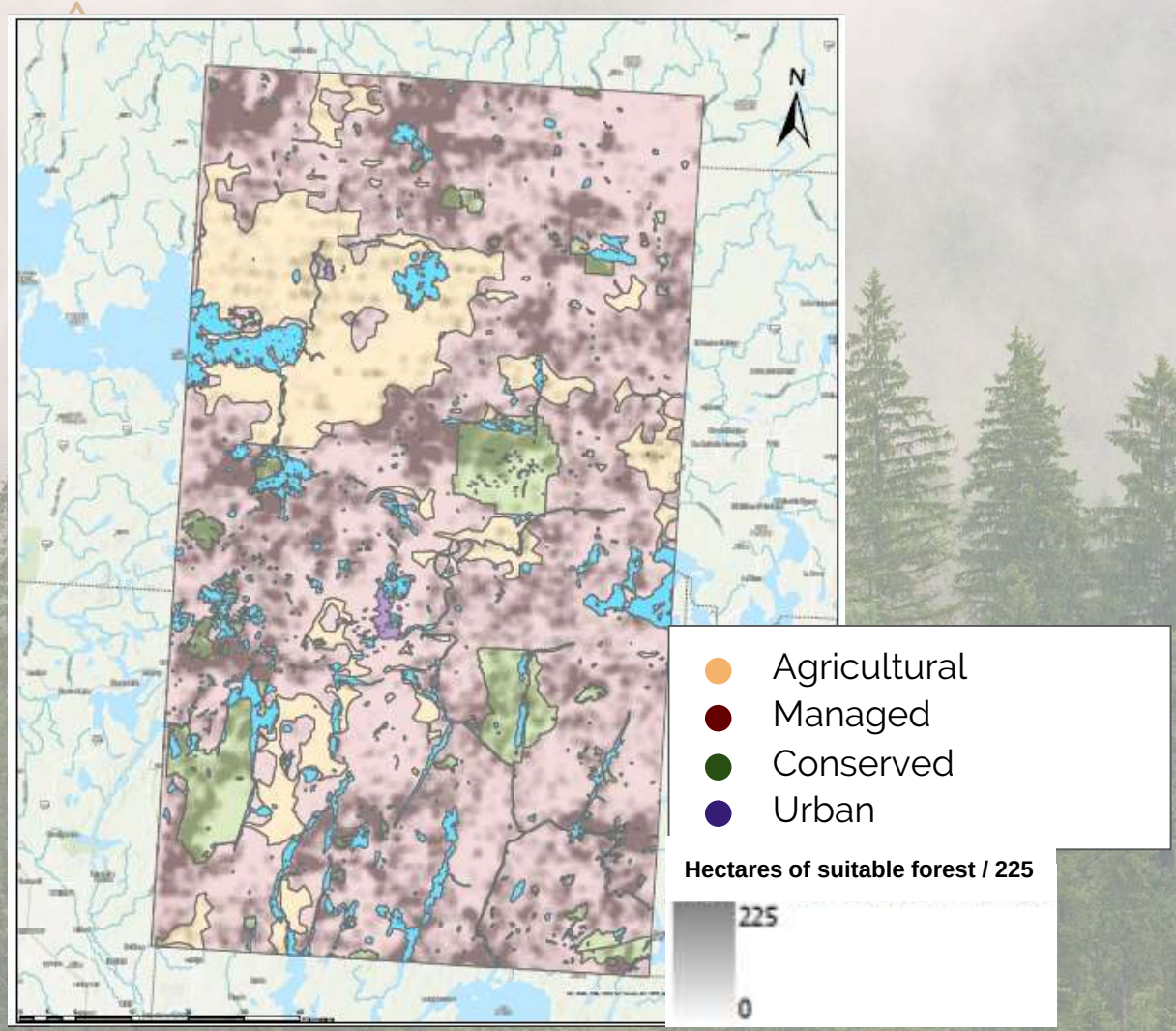
→ Managed = varied

Trembling aspen : Essential for pileated woodpeckers

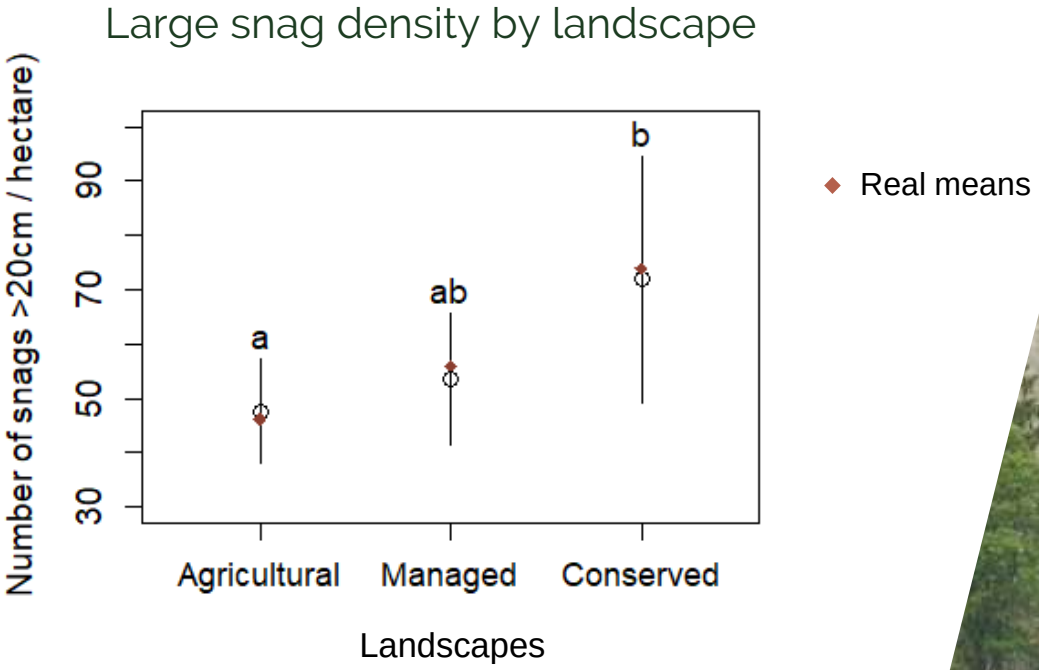
2.1 Results

In a home range

- 12m / 70 y. +
- Less chances to find a substantial area of suitable forests for feeding **agri.** > **man.** > **cons.**
- Connectivity

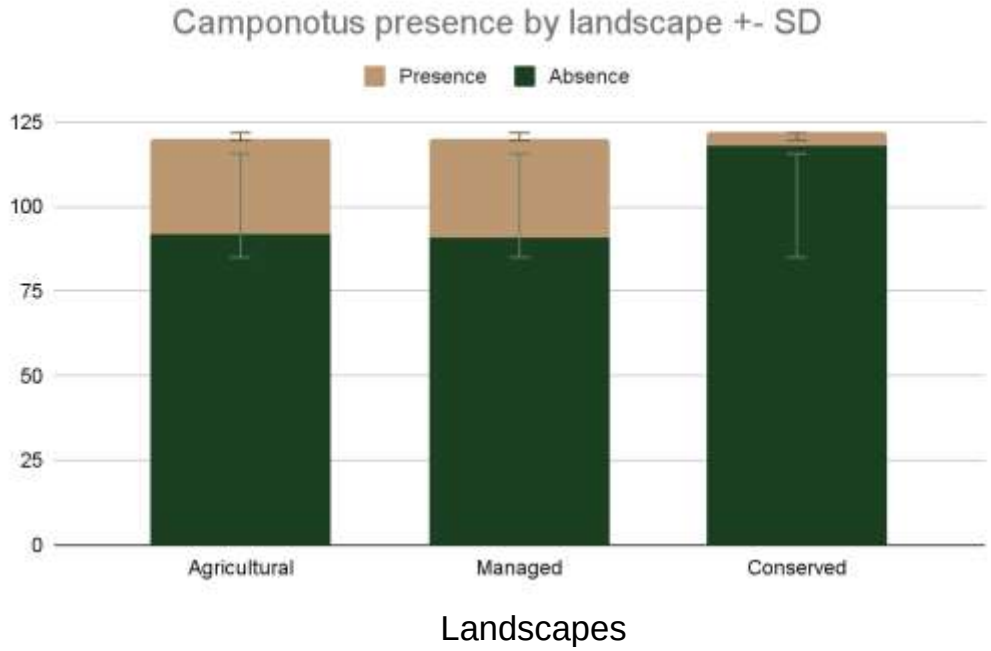


2.2 Results



→ More resources in conserved forests (compared to mature residual forests)

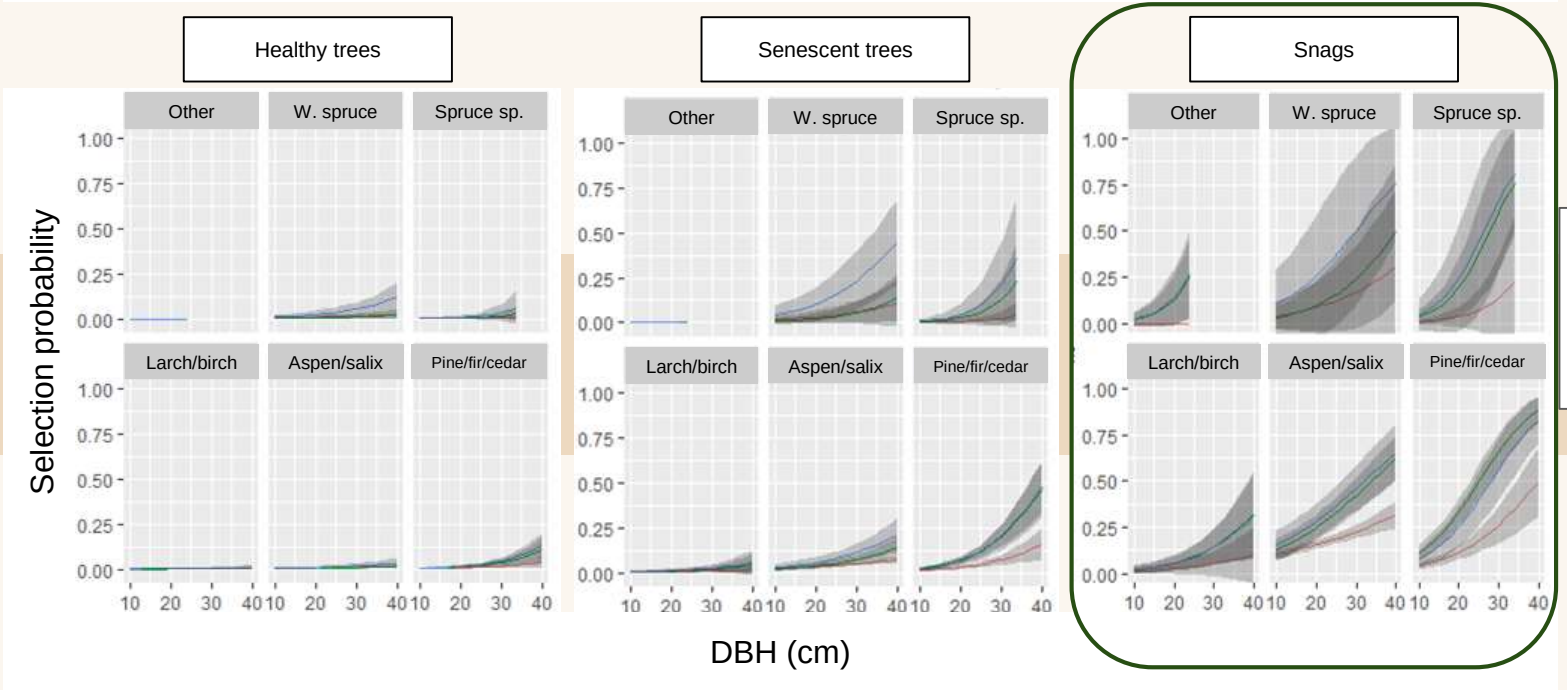
2.2 Results



→ Less camponotus found in conserved forests

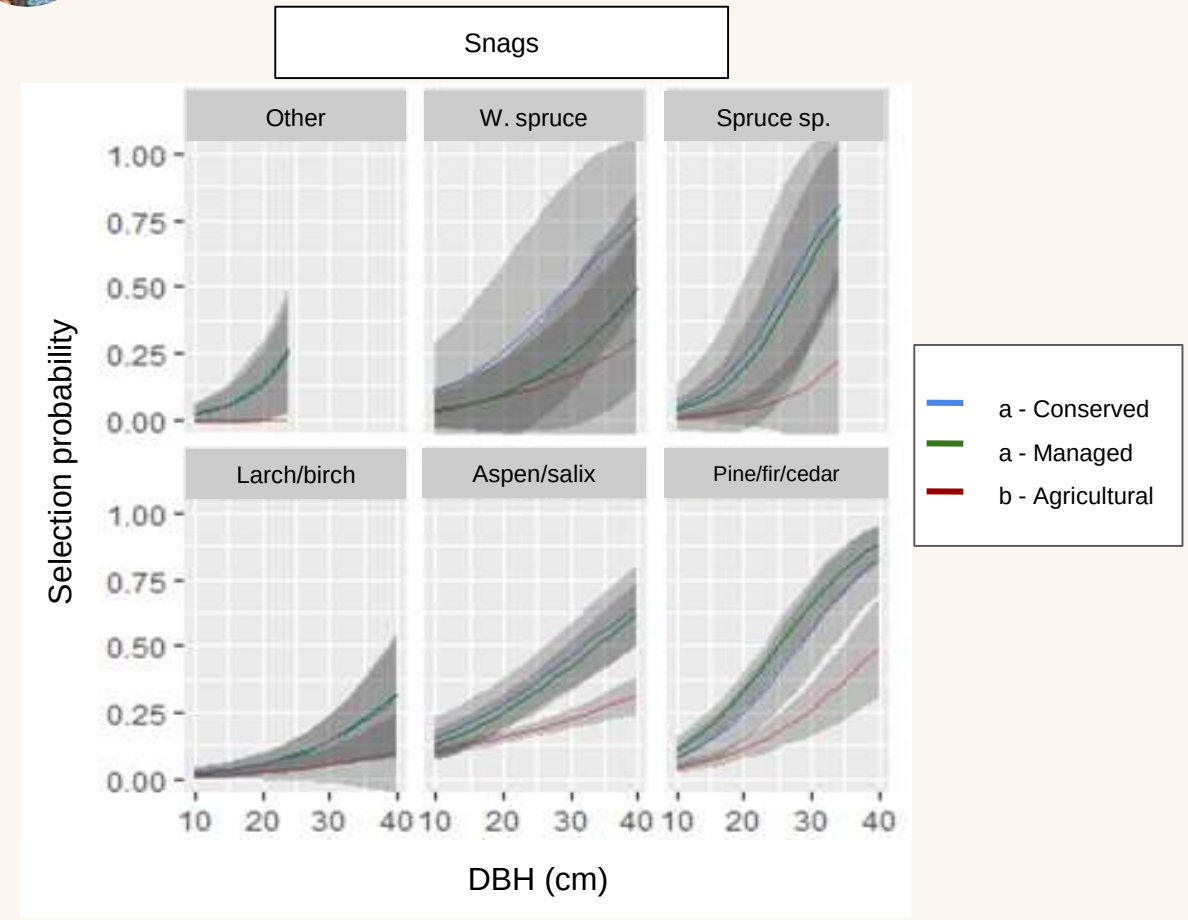
2.3 Results

Selection probability for feeding according to tree and landscape scale characteristics



→ **Appearance :** Snags > senescent > healthy, no interaction

2.3 Results



DBH

→ Larger = more likely

Tree species

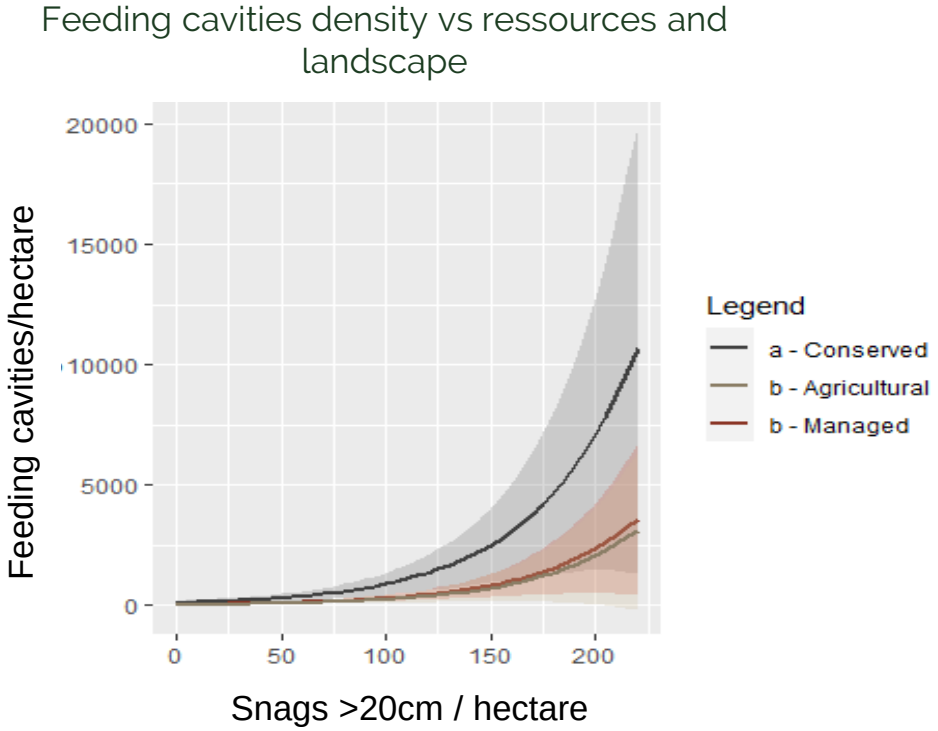
→ Softwood

Landscape

→ Less likely to feed in agricultural landscape

→ Smaller DBH used in agricultural

2.3 Results



→ Snags and landscape influence stand use

→ Equal resources availability ≠ same intensity

V

V

3 Discussion

- **Managed and agricultural: change forests at many scales**

- Probability of selection quite stable

  → Have to rely on smaller trees in agri.

- Resources ≠ feeding

  → Less cover = risk

  → Warmer/drier for ants
  → Ants not limiting
  → Other insects? Larger? Seasons?

Conclusions

Feeding = Presence?
Cavities?

- Agricultural: no
- Conserved: efficient
- Managed: trends can get worse with time

First study to compare pileated woodpecker feeding between three landscapes.

Thank you!

UQÀM