NSC 2023 Winter Conference:

Revitalizing Forest Landscapes for Multiple Resource Values.

March 7-8, 2023

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Do partial cutting and post-fire tree planting reduce carbon emissions from the forest sector?

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Managing for another resource value: carbon storage and sequestration

Management for forest carbon is new for most of us

- 1 Mega gram carbon = 1 metric ton of carbon = 1 Tonne
- 1 carbon credit = 1 Tonne of $C0_2$ equivalents
- To convert carbon to carbon dioxide, multiply by the ratio of the molecular weight of carbon dioxide to that of carbon (44/12)

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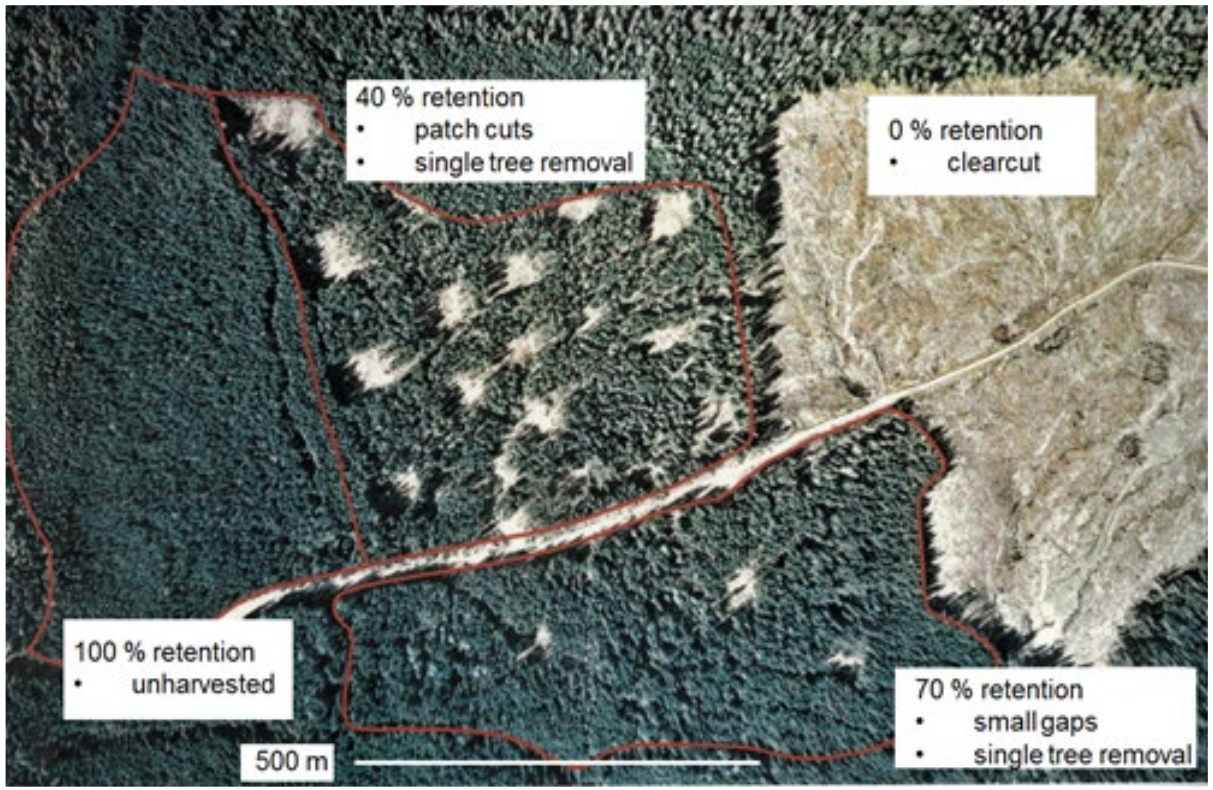
Carbon research collaborations with UNBC, UBC, & BVRC



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Forest Carbon Initiative

Forest carbon has become big business

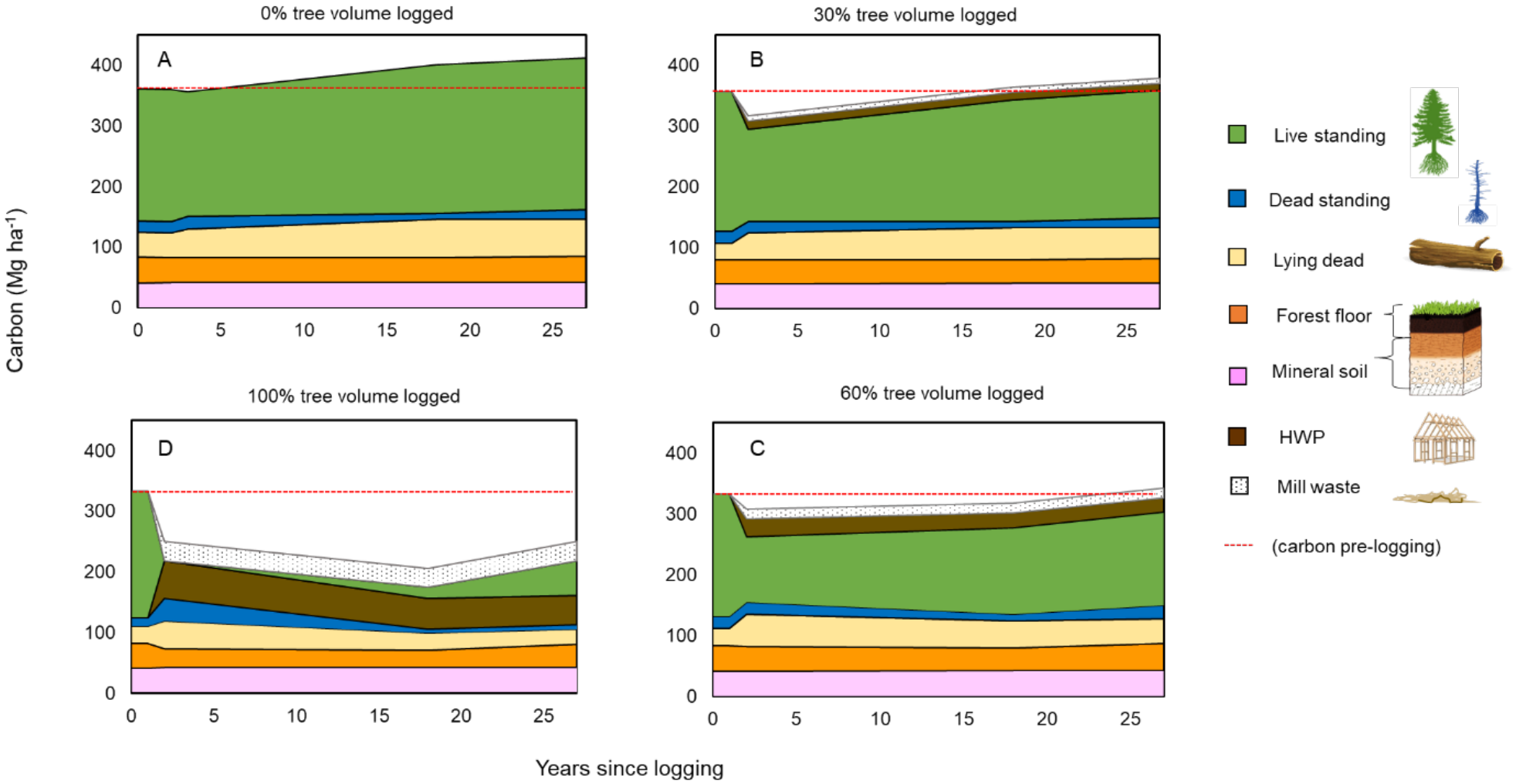
- $15 per tonne $C0_2e$: the current off-set market
- $50 per tonne $C0_2e$: the current carbon tax in BC
- $65 per tonne $C0_2e$: FCI has calculated as the social cost of carbon, or the incremental benefit to society of avoiding more $C0_2$ in the atmosphere
- $80 to $100 tonne $C0_2e$: Pindyck estimate of the social cost of carbon

Pindyck, R.S. (2019). The social cost of carbon revisited. *Journal of Environmental Economics and Management*, 94, 140-160.

Net-Zero Emissions by 2050

"To avert the worst impacts of climate change, the Government of Canada is committed to achieving net-zero emissions by 2050."

https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/net-zero-emissions-2050.html


0% tree volume logged
A
30% tree volume logged
B
100% tree volume logged
D
60% tree volume logged
C
Carbon (Mg ha-1)
Years since logging
0
100
200
300
400
0
5
10
15
20
25
Live standing
Dead standing
Lying dead
Forest floor
Mineral soil
HWP
Mill waste
(carbon pre-logging)

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If there was a price on emissions or an economic incentive to create less emissions, what would our default silvicultural system look like?

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