Variation in reproductive capacity of lodgepole pine (Pinus contorta var. latifolia) in British Columbia

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Pinus contorta
- Wide ranging
- 4 subspecies/varieties
- Lodgepole pine: *Pinus contorta* var *latifolia*

Seed Orchards
- Genotypes selected for growth and volume
- Located in southern areas
- Lodgepole pine has not met seed expectations
Phenotypic plasticity
• Influences development, function, adaptation
• Depends on environmental conditions


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Illingworth Provenance Trial: >140 sources, 60 test sites
Sample Design
- 21 sites
- 7 provenances
- ~ 4 trees/prov
We are looking at cone variation and seed yield. These have implications for siting of seed orchards in the future.
70 Mile
Green Lake
Chilcotin River
Length
Number of scales
Number of seeds
• Population responses of seed and cone to climate are novel research
• Identify climate regimes for optimal cone morphology and seed yield
• Create map of climate suitability
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