

Kyle Gill

NRAGS Spring Symposium

22 April 2014

Dynamics in Tension:

Quantifying structure, stand dynamics and climate-growth relationships
of non-serotinous Jack Pine (*P. banksiana*)



what's **Happening** ?

what's going to **Happen** ?

what just **Happened** ?

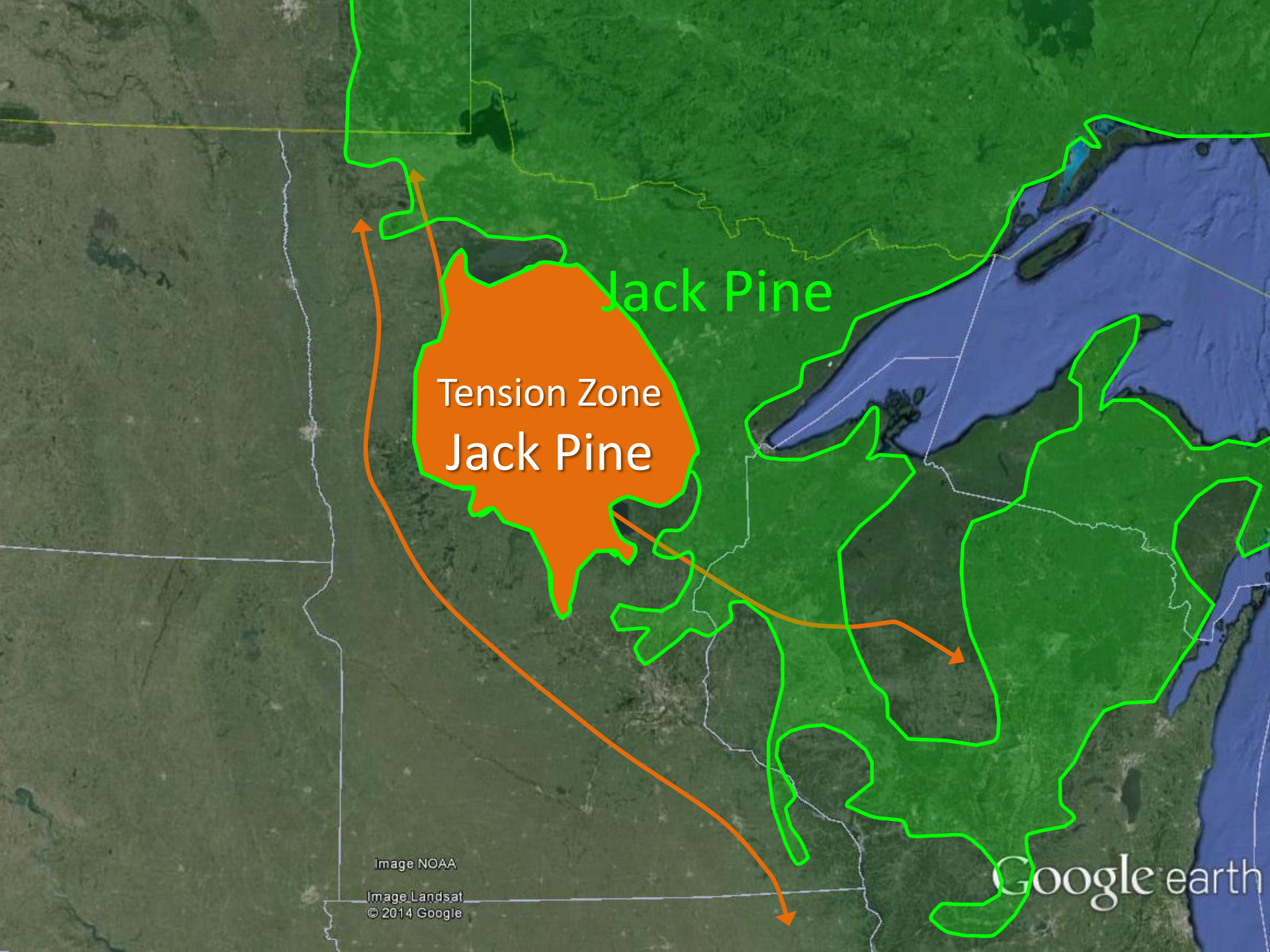


A satellite-style map of the United States with several overlays. A large green area, outlined in bright green, covers the northern and central parts of the continent, representing the Jack Pine Forest. An orange line, representing the Prairie-Forest border, runs from the southwest to the northeast, separating the green forested area from the brownish prairie region to the west and south. A yellow line is visible in the western part of the country. Three text boxes are overlaid on the map: a green box with white text 'Jack Pine Forest' in the northern forested area, a white box with orange text 'Prairie' in the western prairie region, and a larger white box with orange text 'Prairie - Forest border' in the lower-left quadrant. An orange arrow points from the border line towards the forested area.

Jack Pine Forest

Prairie

Prairie - Forest border



Jack Pine

Tension Zone
Jack Pine

Image NOAA

Image Landsat
© 2014 Google

Google earth

what's **Happening** ?



what's **Happening** ?

*MGMT*_{results} \neq *MGMT*_{expectations}

*Dynamics*_{tzJP} \neq *Dynamics*_{expct} ???

Dynamics_{expected}

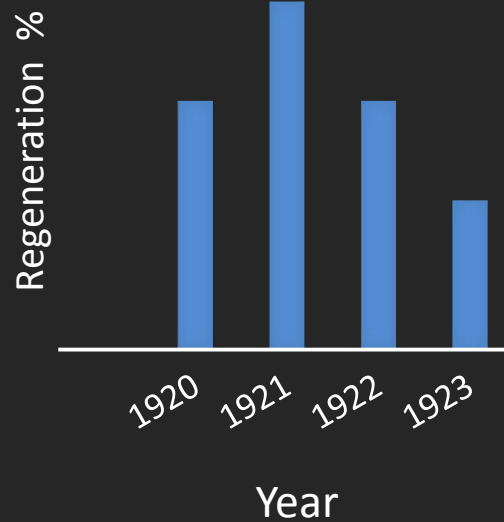


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EVEN AGED



Dynamics_{tzJP}



+ ? =

Regeneration %

?

1920 1930 1940 1950

Year

How did **THIS:**



happen?

tension-zone
Jack Pine
study sites



Image NOAA
© 2014 Google
Image Landsat

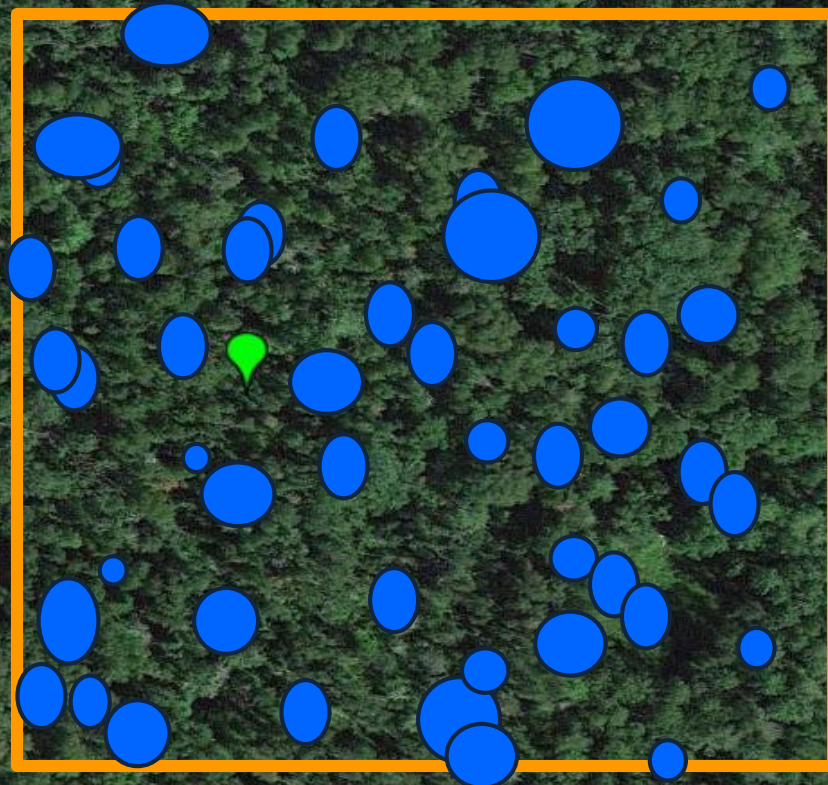
Google earth

tension-zone

Jack Pine

study sites
(not to scale!)

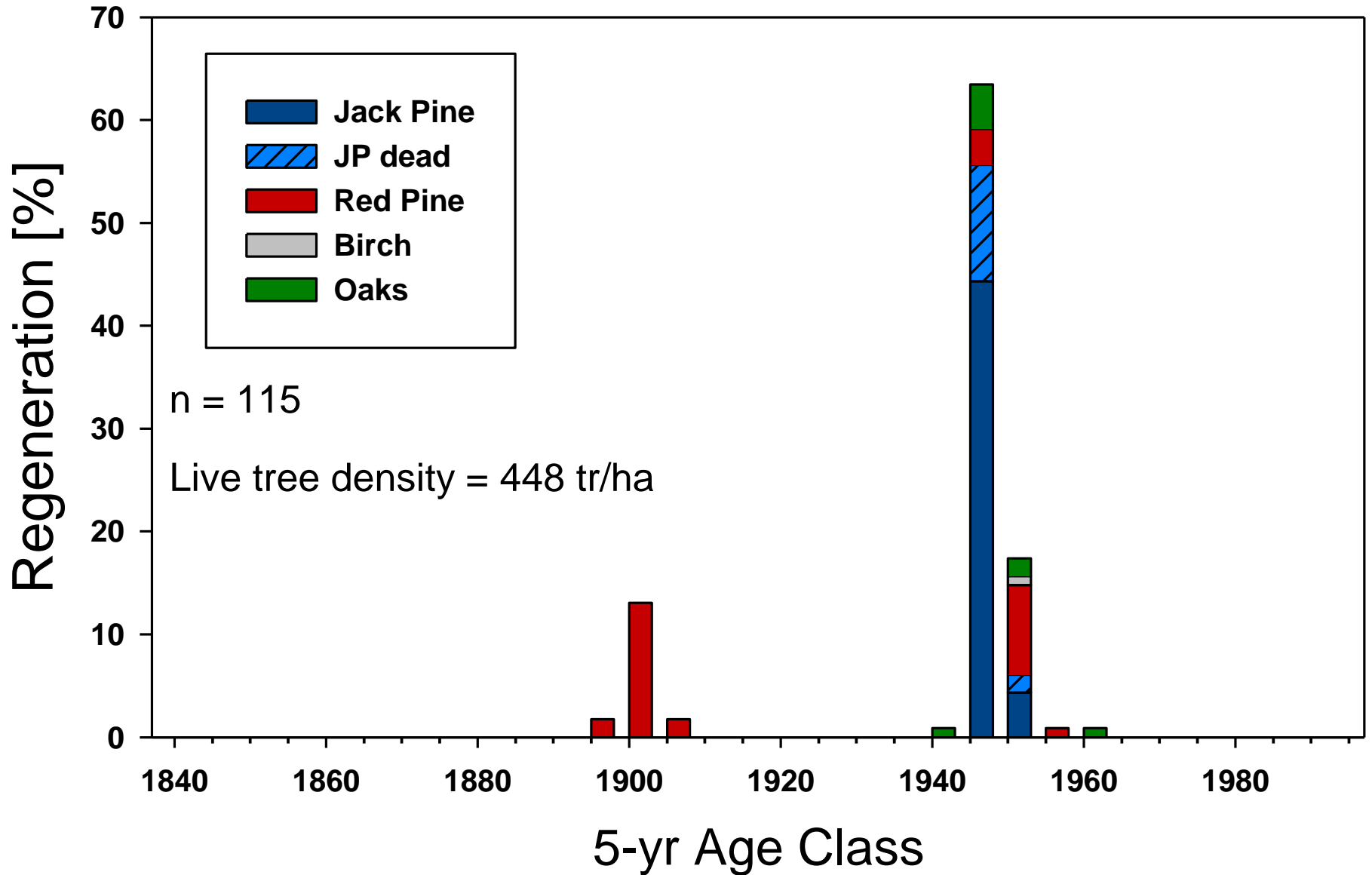
50 m



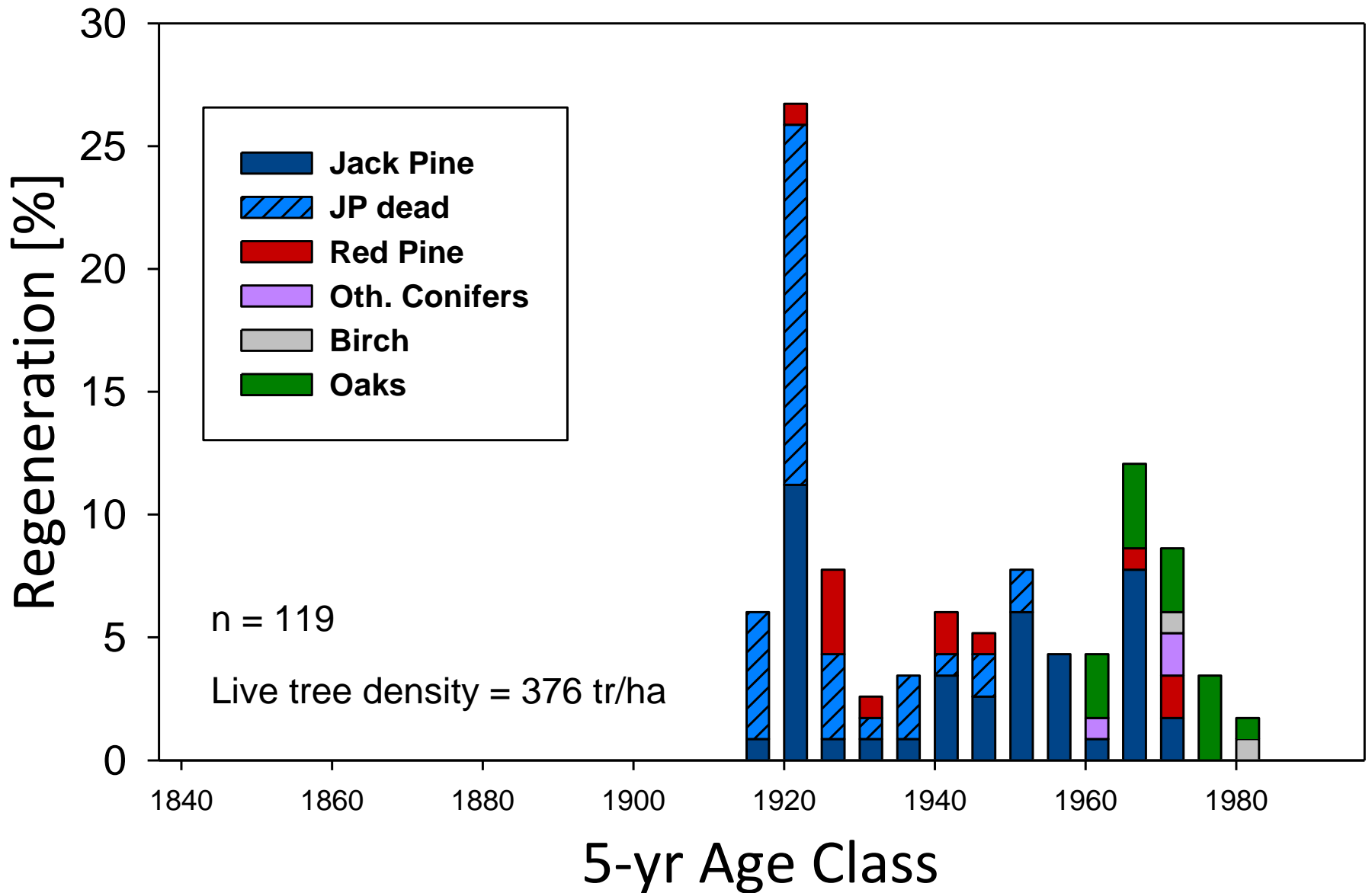
50 m



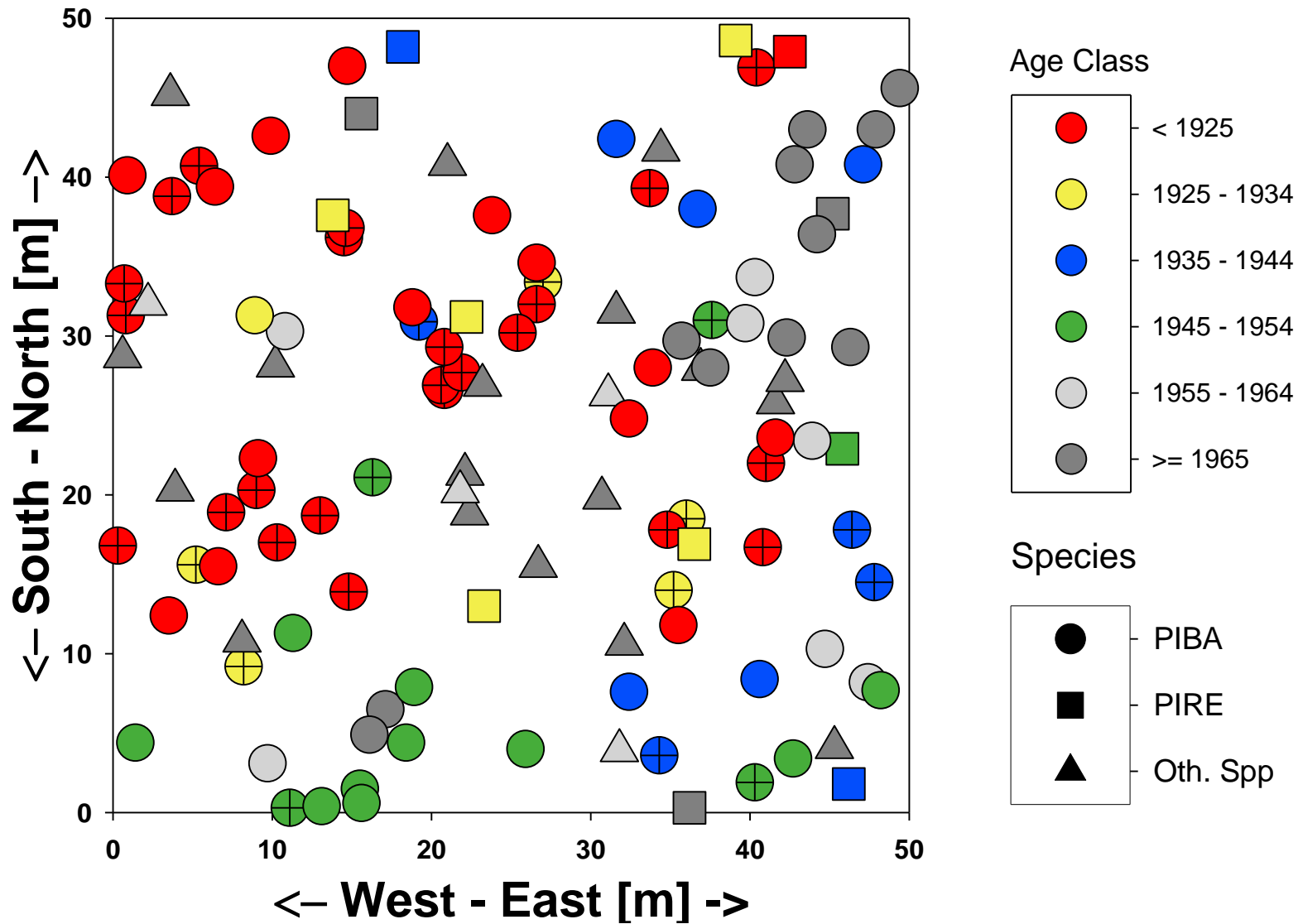
Age Distribution – Nimrod



Age Distribution – Midge Lake East



Age Map – Midge Lake East



Happened ?

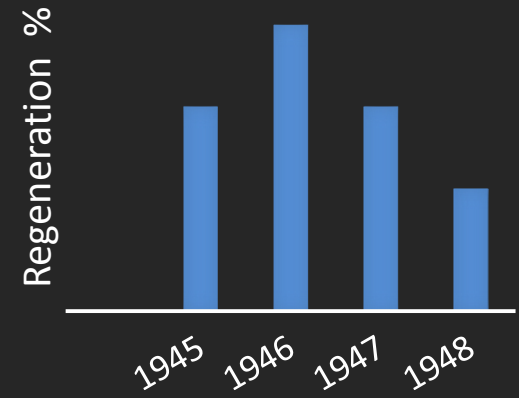


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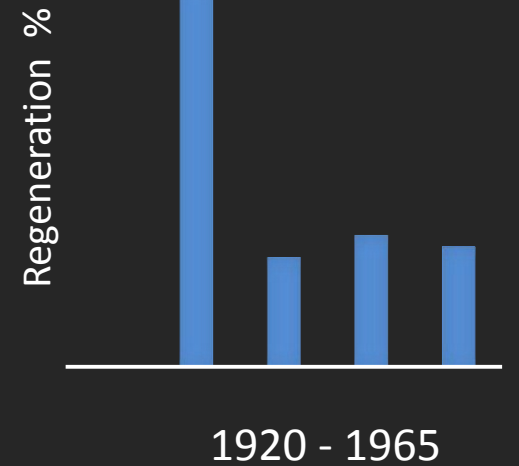


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UN-EVEN AGED



1920 - 1965

Dynamics_{tzJP}

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Dynamics_{expct}

Happening ?





Happen next ?

update management

climate – growth/recruitment relationships

Questions ?

Acknowledgements

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Photo credits: Serotinous cones – en.Wikipedia.org
Crown fire – wildlandfirefighter.ca
Surface fire - NPS.gov