

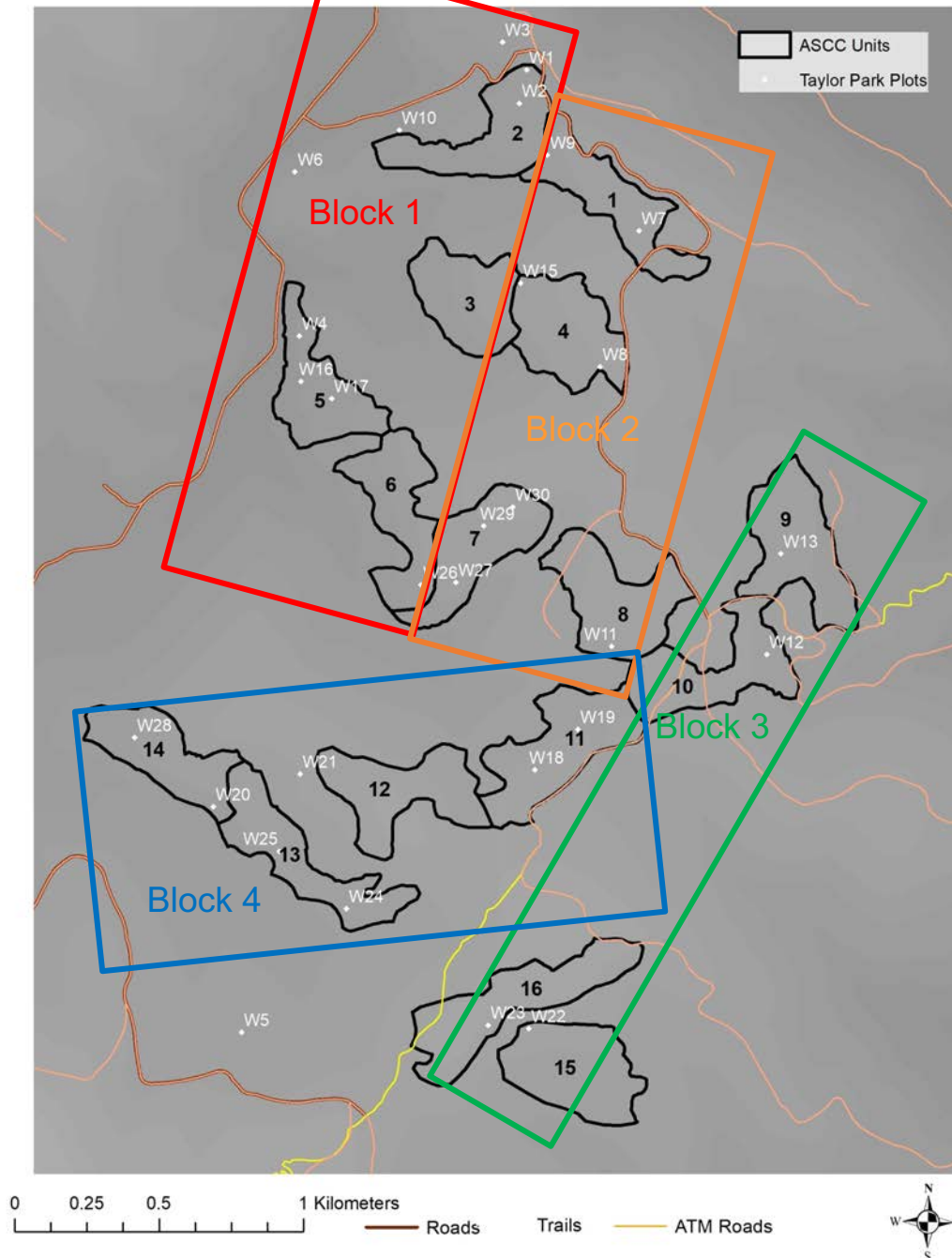
# Current Conditions at the Taylor Park ASCC site



Jonathan Coop

Taylor ASCC Workshop, July 6, 2022

## Trail Creek ASCC 2022



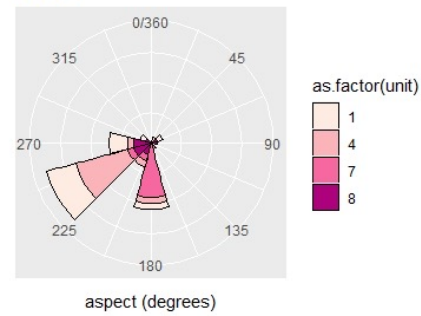
## Experimental Layout

- 20 Treatment units
- Each 25-35 acres
- 4 blocks with similar elevation, slope, aspect, and forest canopy structure

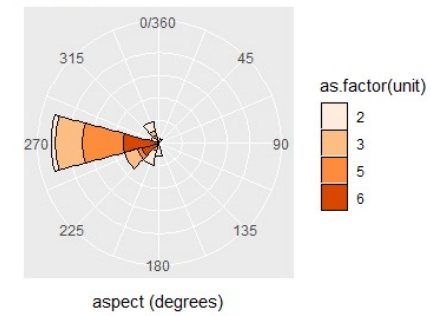
# Topography

- Generally, south to west aspects
- Moderate elevations (3050-3200 m)
- Shallow slopes (0-20 degrees)

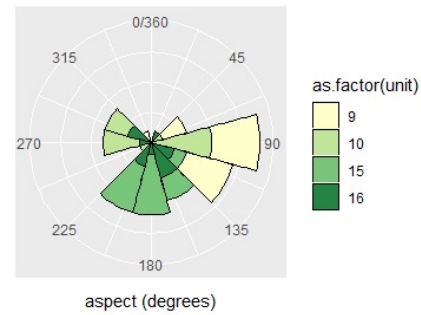
Block 1



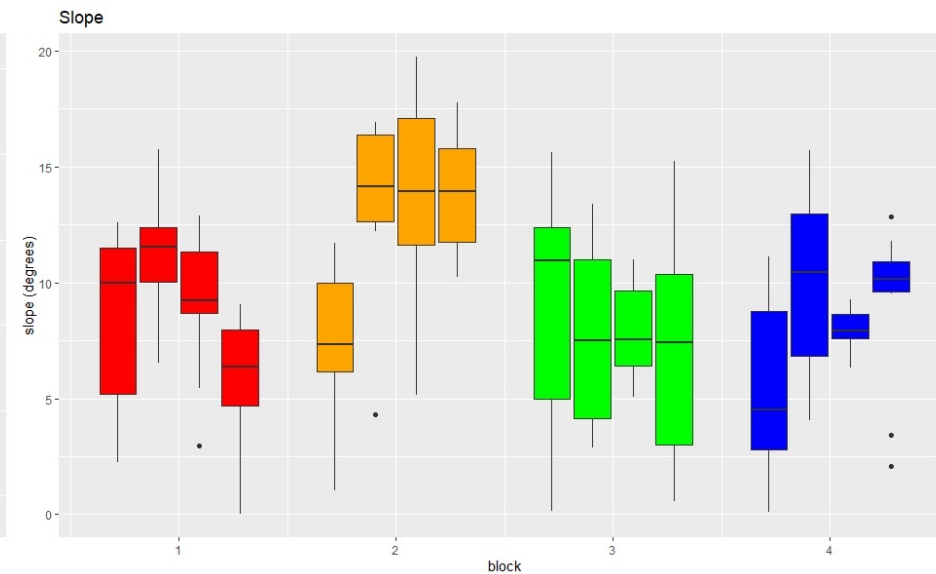
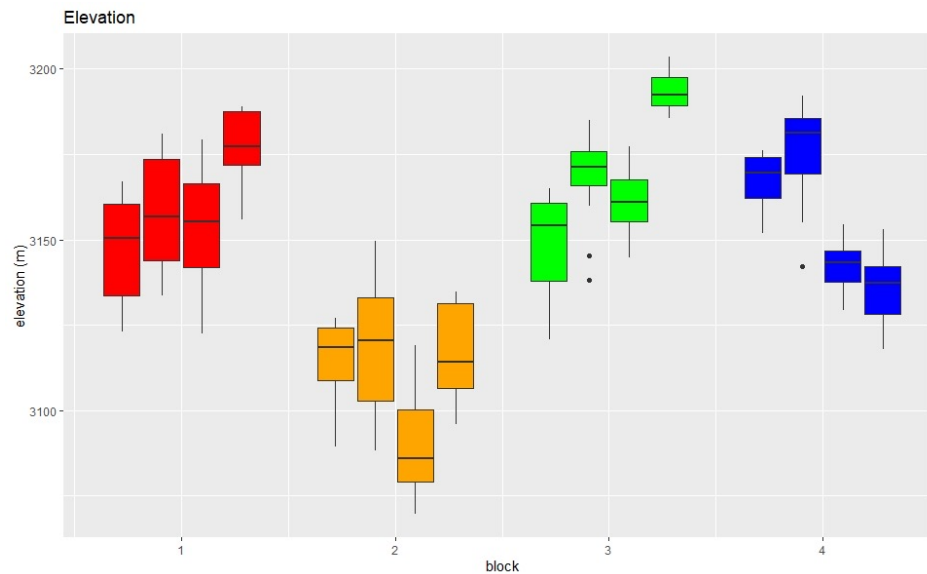
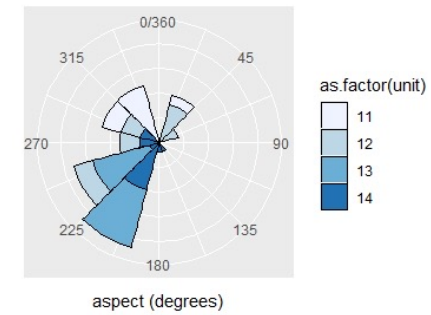
Block 2



Block 3



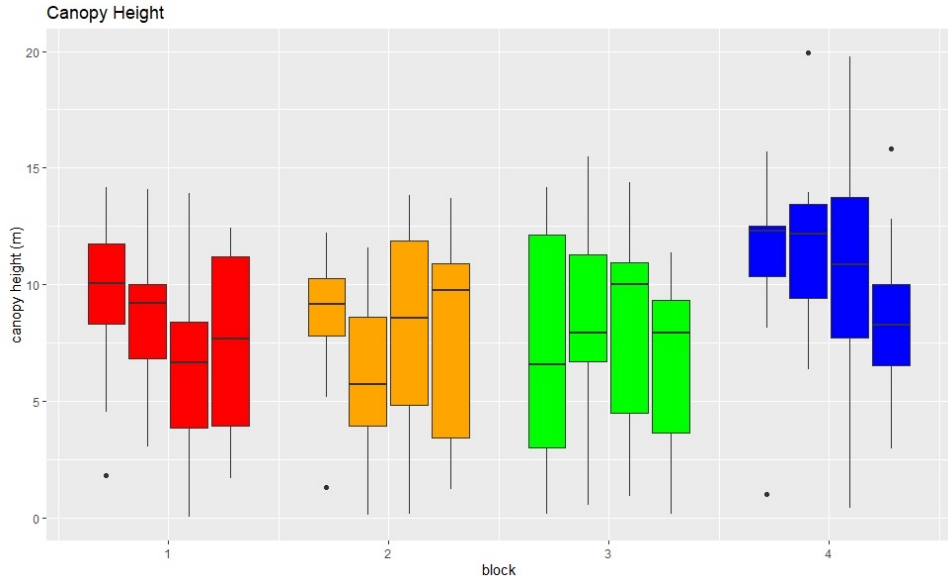
Block 4



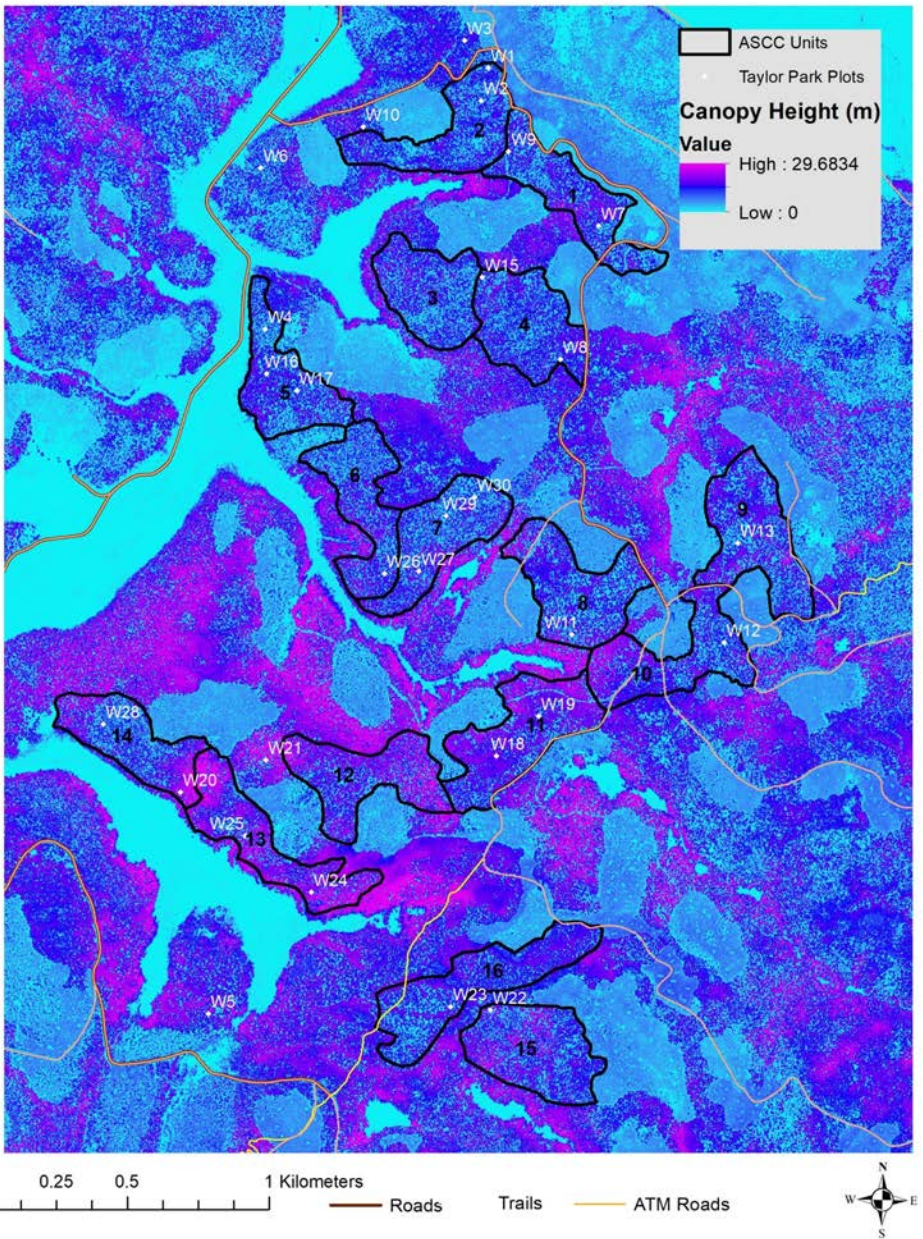
# LiDAR Canopy Height

(80<sup>th</sup> percentile, courtesy I. Breckheimer)

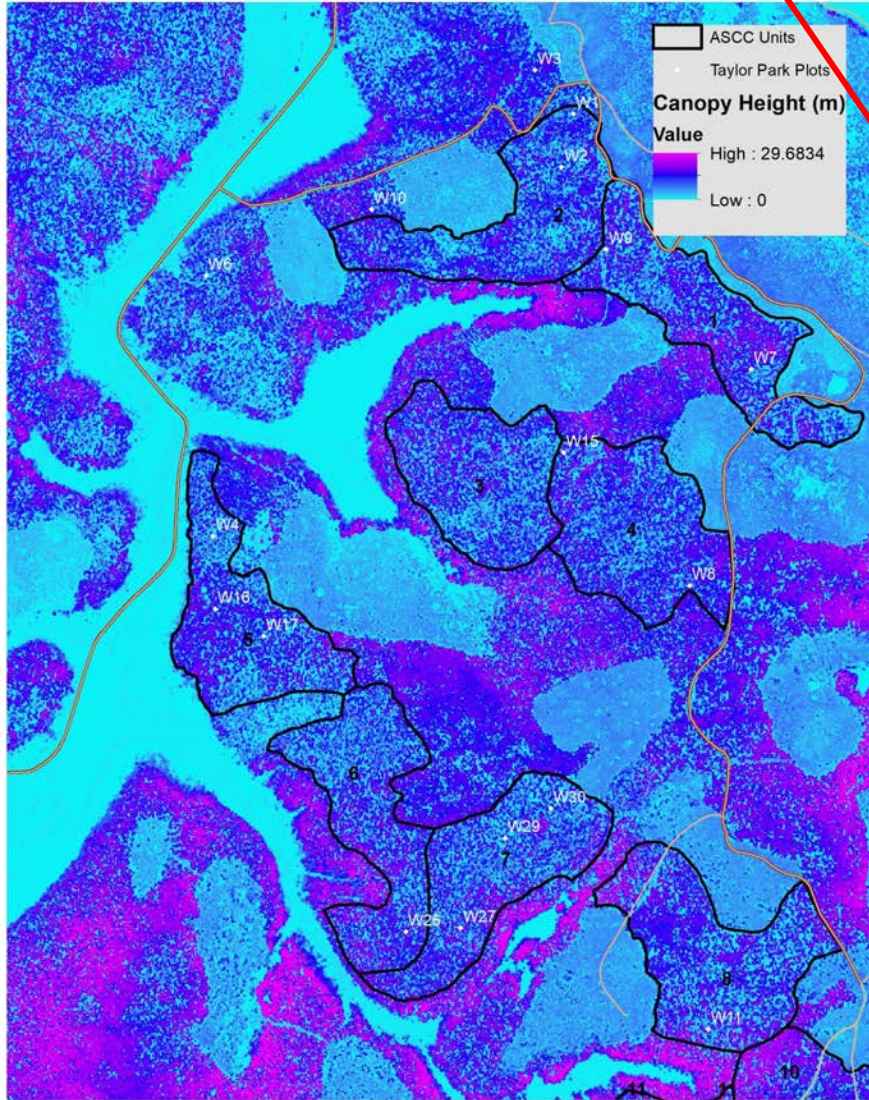
- most stands **variable with a mix of closed and open patches**
- generally moderately tall trees (max ~ 20 m).



Trail Creek ASCC 2022



Forest Canopy Northern Trail Creek



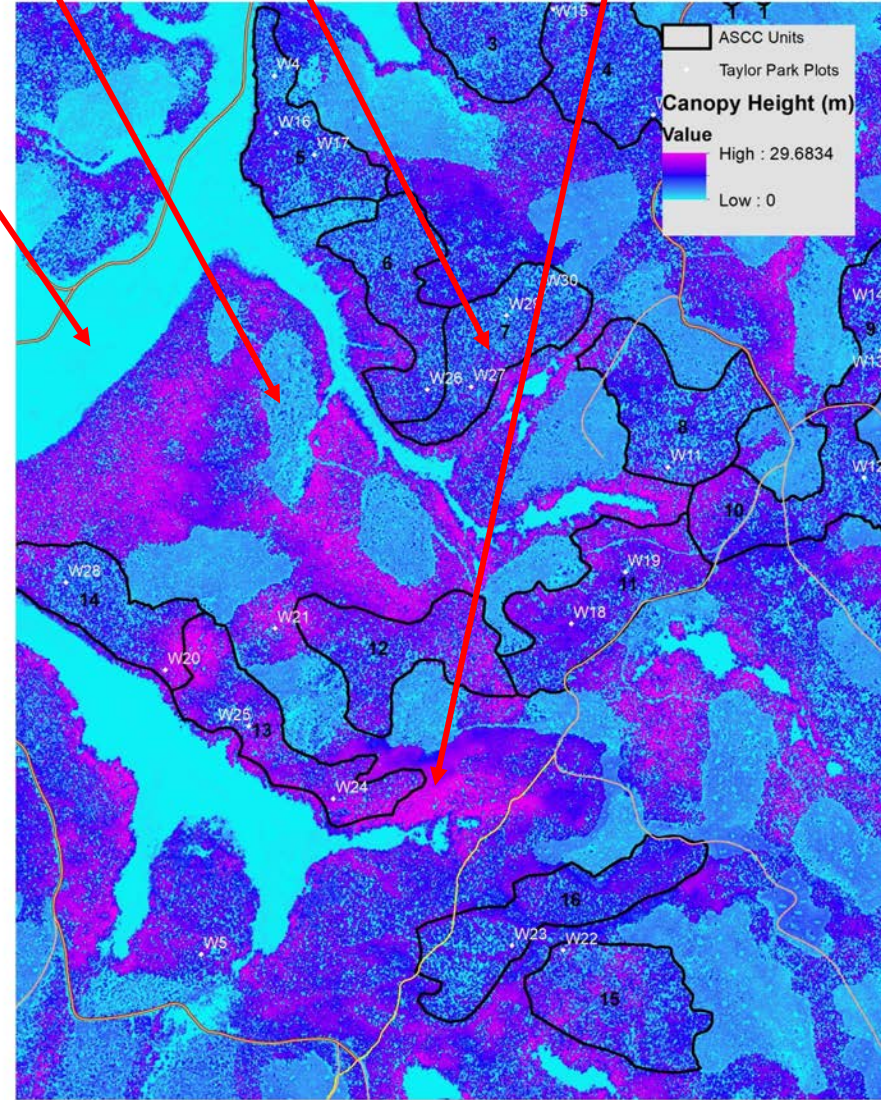
meadow

old clearcut

patchy PICO

taller closed canopy

Forest Canopy Southern Trail Creek





ASCC-SOUTHERN ROCKIES

Appendix C Plot Photo Placard

Area: TAY

Location: AS14

Stand: \_\_\_\_\_

Rep: \_\_\_\_\_ Plot: \_\_\_\_\_

M1 - Installation





Appendix C: Plot Photo Placard

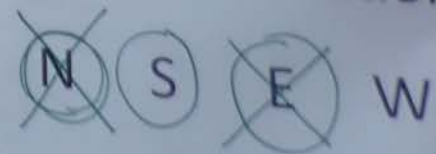
Area: TAY

Location: AS 24

Stand: \_\_\_\_\_

Rep: \_\_\_\_\_ Plot: \_\_\_\_\_

M1 - Installation



ASCC-SOUTHERN ROCKIES

Appendix C: Plot Photo Placard

Area: TAY

Location: AS Ø 9

Stand: \_\_\_\_\_

Rep: \_\_\_\_\_ Plot: \_\_\_\_\_

M1 - Installation





Area: TAY  
Location: A.S. O.D.  
Stand:  
Rep: Plot:  
M1 - Installation



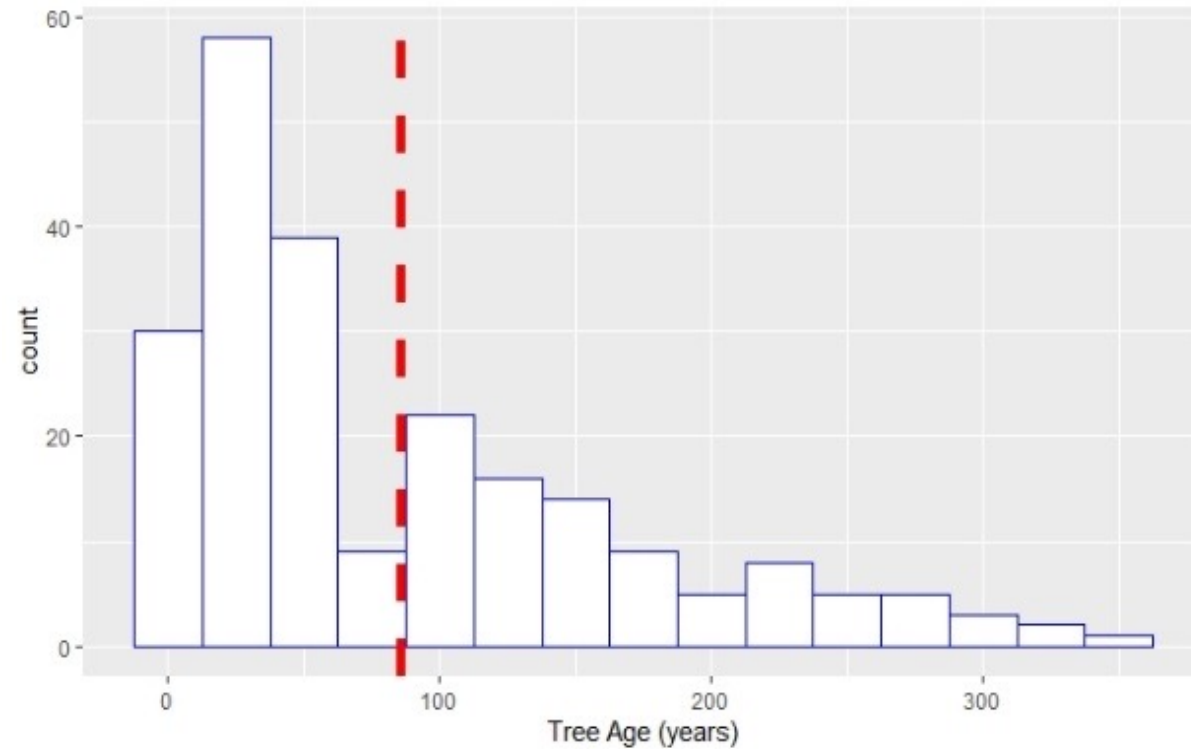
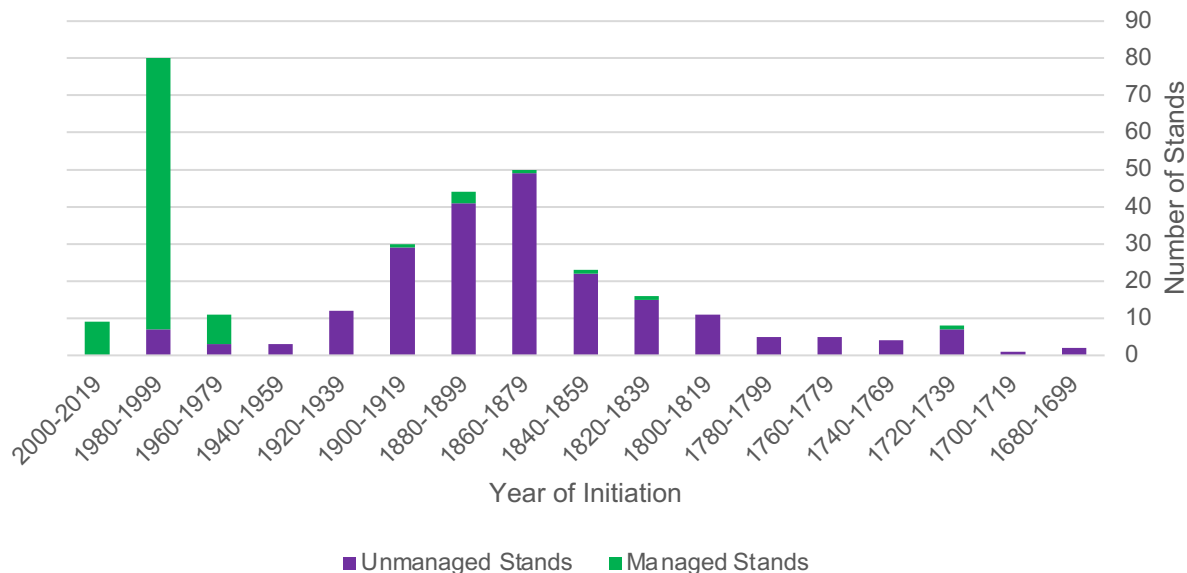


Plot 11  
Location A & B  
Stand  
Rep. Plot  
M. W. W. W.  
XXXX W

# Tree/stand ages

- 1-385 (85) years at ASCC site
- Similar age class distribution as seen across Taylor

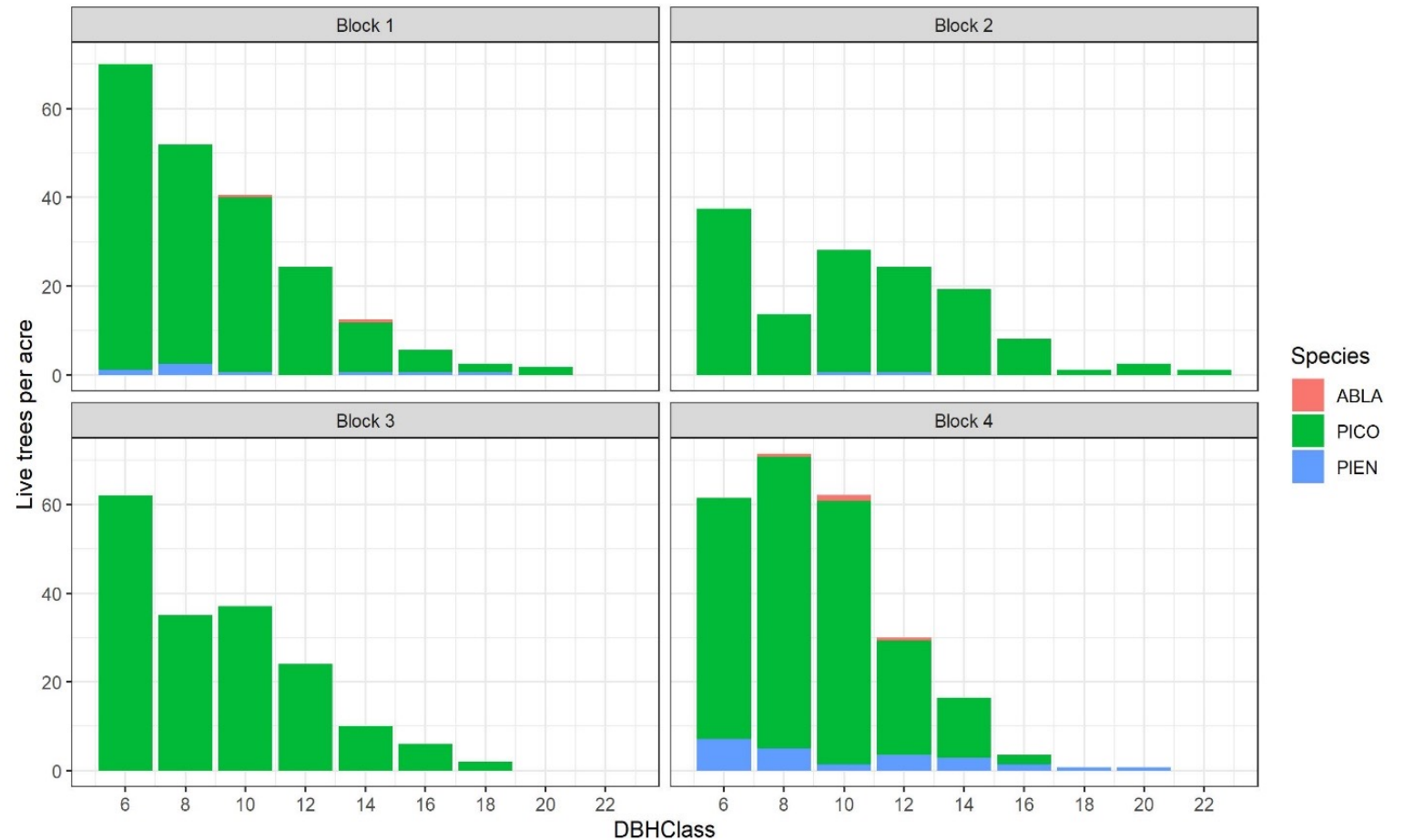
Taylor Park Stand Age and Management Status Frequency Distribution



- Recent regeneration in the form of lodgepole pine tree seedlings (stems  $\leq 1$ " DBH) is abundant across all units (mean 432 stems/acre).

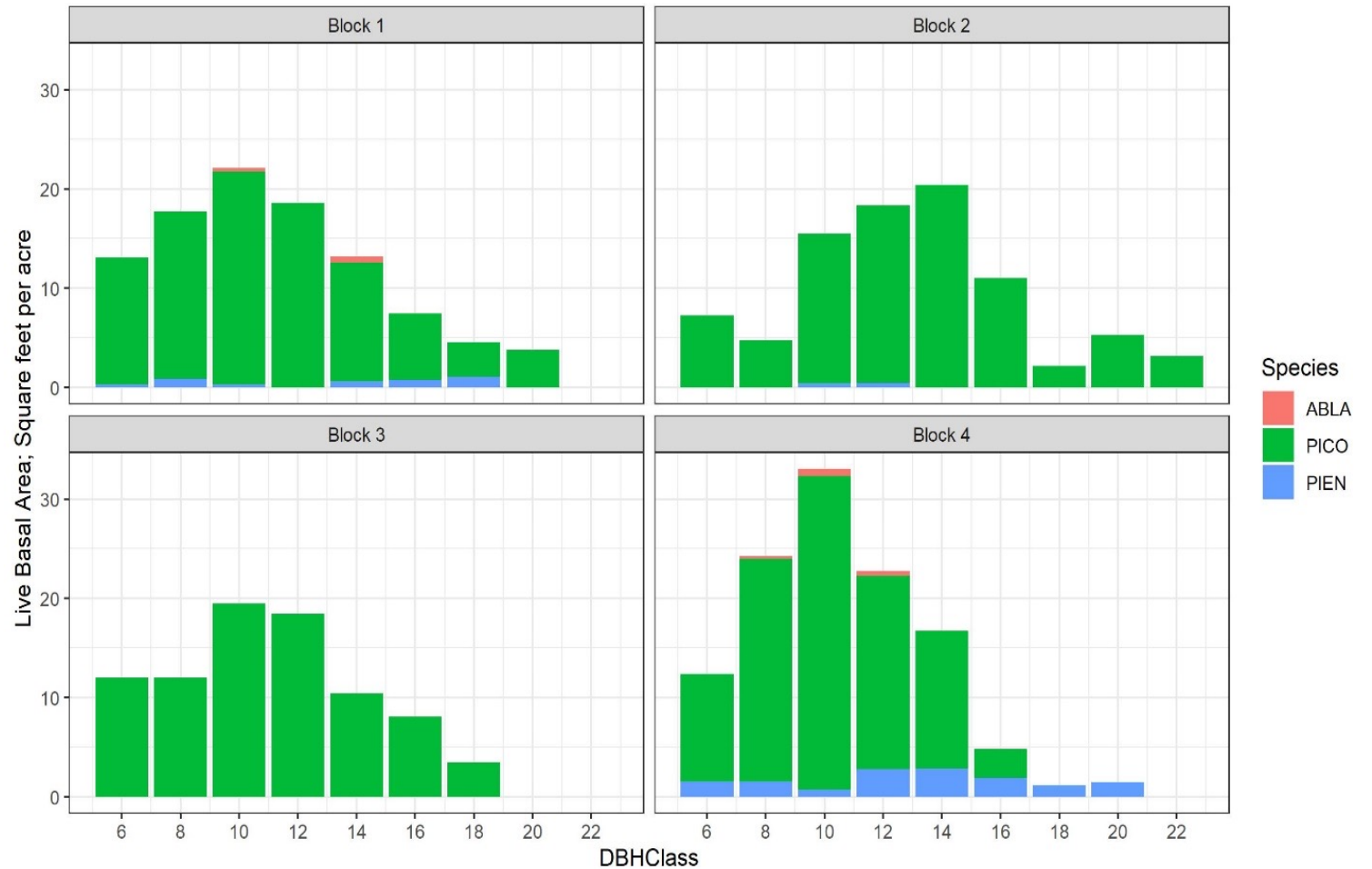
# Tree density

- 93% lodgepole pine, 6% Engelmann spruce, 1% subalpine fir
- Tree density (>2" DBH) averaged 634, 1185, 794, and 819 trees per acre in Blocks 1-4, respectively.



# Tree basal area and cubic volume

- Total basal area averaged 107, 100, 92, and 125 ft<sup>2</sup>/acre in Blocks 1-4, respectively. Most basal area is concentrated in the 8-14" DBH classes.
- Patterns of cubic volume (ft<sup>3</sup>/acre) broadly mirror those of basal area and density. Averages were 2306, 2068, 1759, and 2807 in Blocks 1-4, respectively.



# Tree health

- Taylor Park ASCC project area essentially unaffected by bark beetles, and most trees are in a relatively healthy condition. However, mountain pine beetle activity has been increasing over the last few years in lodgepole pine forests ~15 miles downcanyon of the project area.
- Lodgepole pine in the project area is, however, heavily affected by dwarf mistletoe (*Arceuthobium americanum*). 60% of sampled mature trees ( $\geq 6$ " DBH, N = 920) exhibited dwarf mistletoe, with an average Hawksworth DMR (scale of 1-6) of 3.3, or more than half of the tree canopy affected.



# Fuels

- All treatment units are characterized by high loadings of dead and down fuels, which is expected given stand ages. Average values (tons/acre) were 26, 23, 20, and 18 in Blocks 1-4, respectively.
- High spatial variability.

