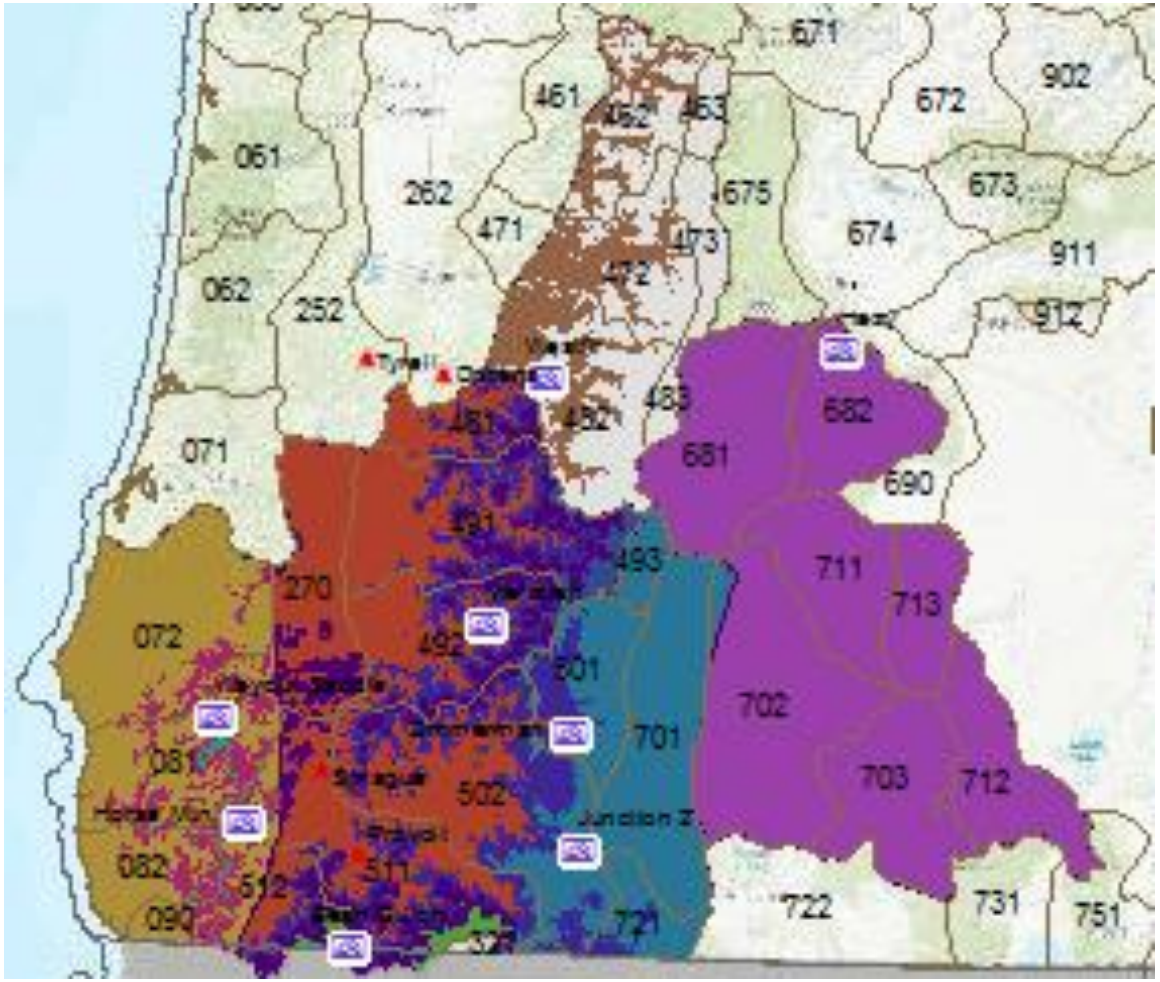
Sugar Pine Assisted Migration trial

USFS Umpqua NF

- 20-acre Sugar Pine AM site planted April 2022
  - Within 2018 Columbus fire footprint (Tiller RD, Umpqua NF)
- Goal: Provide some information on adaptability of acquired seed sources from the Rogue River-Siskiyou NF (2020)
- Experiences and opportunities using a generalist species
- Challenges

Sugar Pine Assisted Migration trial
USFS Umpqua NF

- 20-acre Sugar Pine AM site planted April 2022
  - Within 2018 Columbus fire footprint (Tiller RD, Umpqua NF)
- Test seed acquired for operational reforestation from the Rogue River- Siskiyou NF



Methods

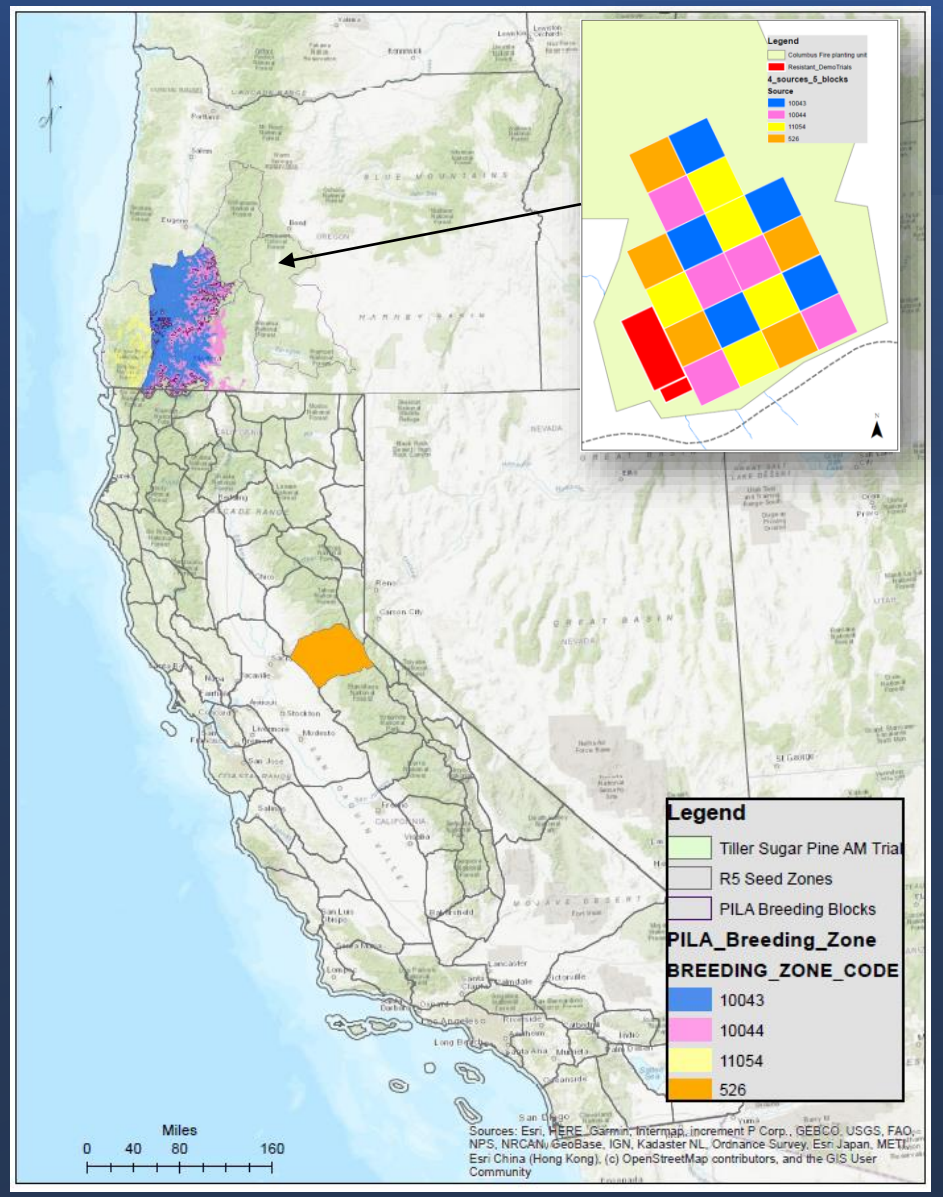


Table 1. Characteristics of the sugar pine seed sources selected for planting.

Seed source elevation	Seed Origin	Climate Period	Change in Mean Cold Month Temperature (MCMT) (°C)	Change in Summer Heat Moisture Index (SHM)
2500' - 4000'	Local seed source	historical/local (MCMT=1.2 °C SHM = 81.9) (1961 – 1990)	NA	NA
<2500'	Local seeds from lower elevation on Umpqua National Forest	early-century (2011 – 2040)	+1.3	+20.7
2500' - 4000'	Siskiyou National Forest ~60 mi SW of planting site	mid-century (2041 – 2070)	+2.4	+37.3
2500'- 3000'	Eldorado National Forest ~300 mi S of planting site	late-century (2071 – 2100)	+3.9	+50.8

- 200 TPA, 5 blocks of 4 seed sources
- Seed Selection Tool to select seed zones based on MCMT and SHM climate and four climate periods
- Operational spacing and seedling care and planting

Challenges and opportunities

- Challenges / Opportunities
  - Post-fire landslide
  - Post winter snow delays at 4,000 ‘
- Experiences using a generalist species
  - More flexibility site selection
  - Less potential seed sources
  - Difference in seed zone size between R5 and R6