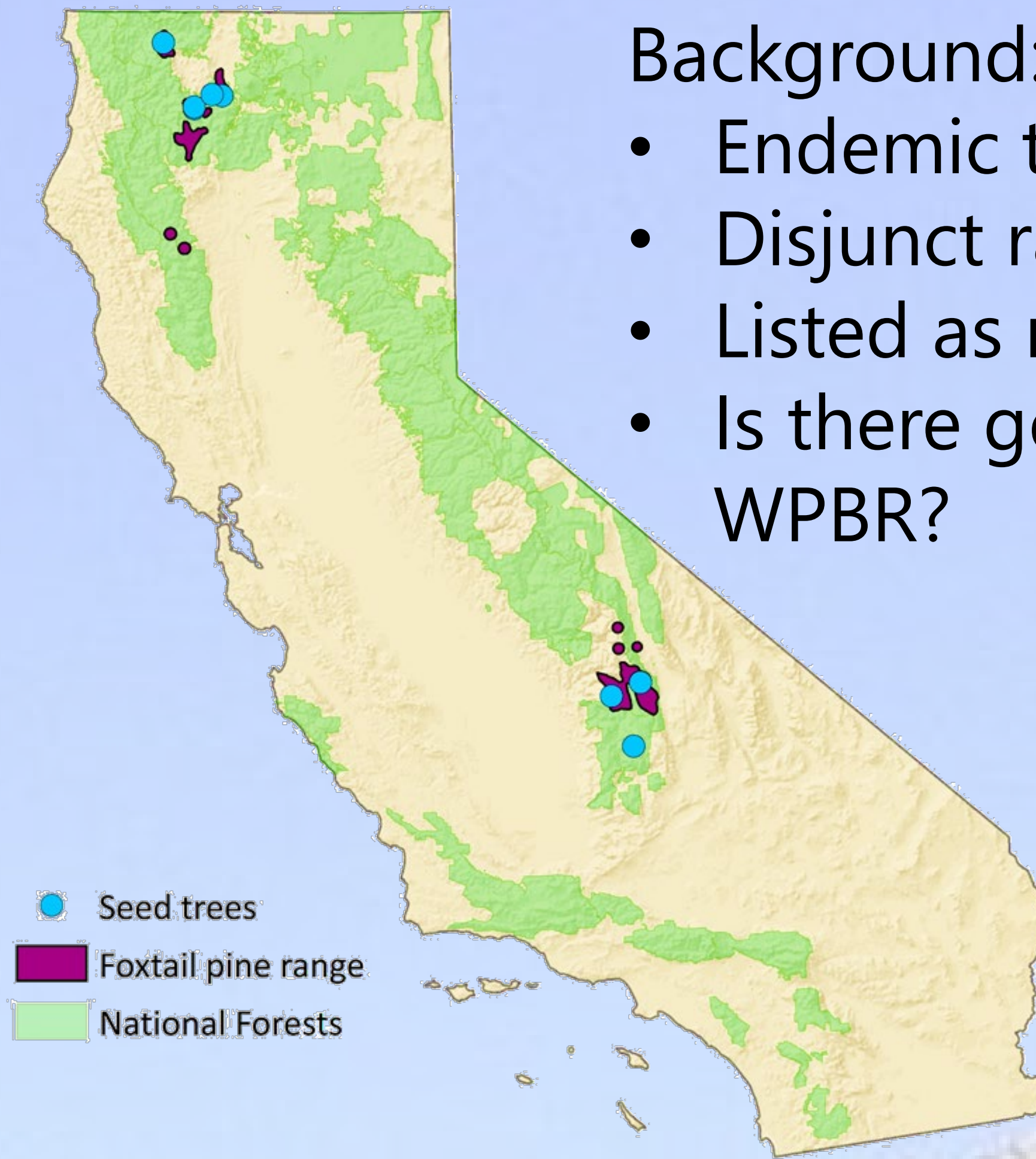


Foxtail pine may be the most susceptible North American species to white pine blister rust.

The search for white pine blister rust resistance in foxtail pine (*Pinus balfouriana*)



Background:

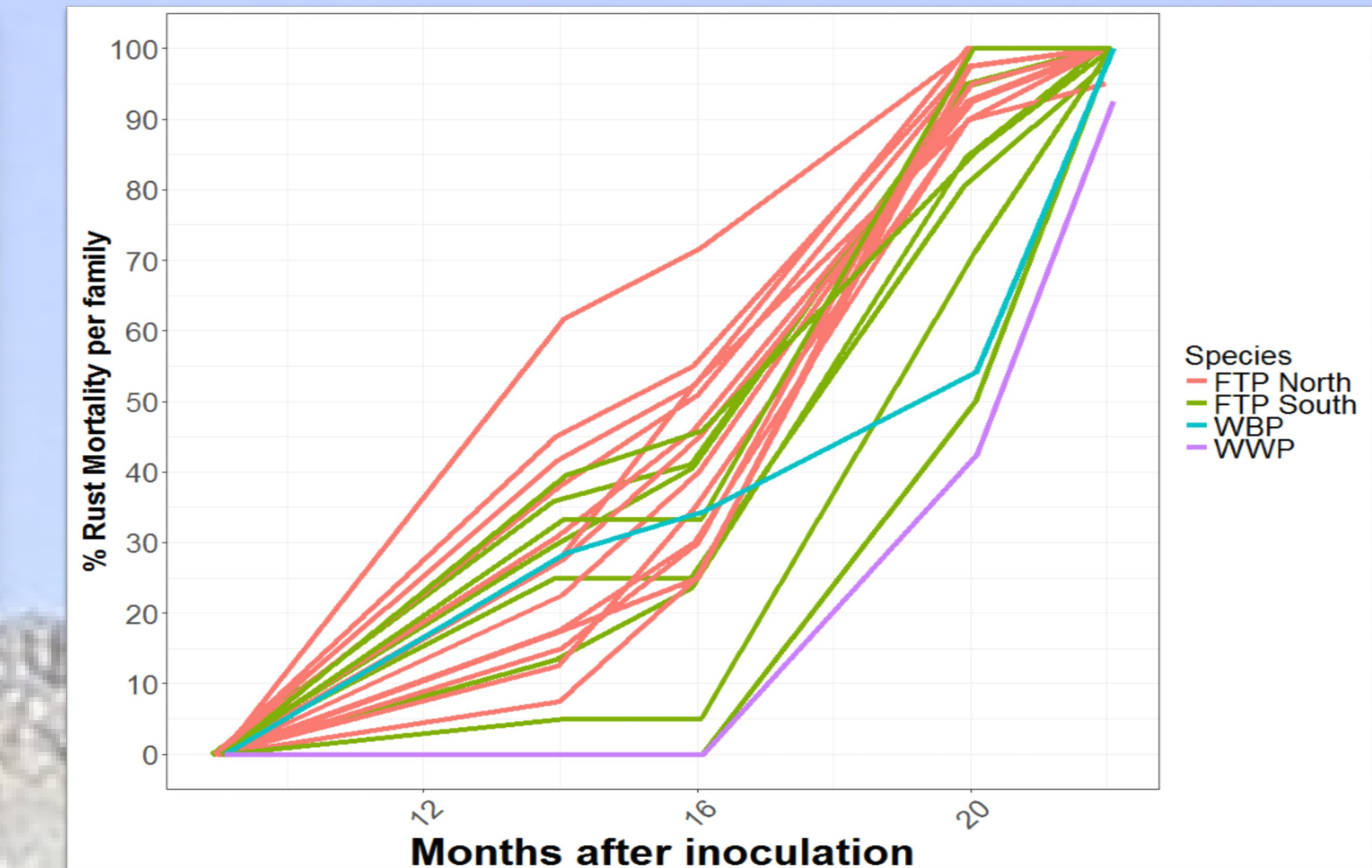
- Endemic to CA
- Disjunct range-2 subspecies
- Listed as near threatened
- Is there genetic resistance to WPBR?

2015 WPBR inoculation:

- 21 seedling families
- All heavily spotted within 4 months
- 100% cankered by 14 months
- Only 2/705 FTP seedlings survived



One of the two survivors



Current Studies:

- Range-wide blister rust resistance testing of ~160 families at Dorena Genetic Resource Center & Placerville Nursery
- Stored seed retained viability; varied by geographic source
- Possible inbreeding—some families had chlorophyll deficient seedlings
- 2 field trials established—OR and CA

Richard A. Sniezko, John Gleason, Robert Danchok, Emily Boes, Chuck Frank, Brianna McTeague, Ange

Acknowledgements:

Ron Mastrogiuseppe provided the impetus to begin work on foxtail pine. We thank Ron and Crater Lake Institute as well as the USDA Forest Service's Pacific Southwest Region (Region 5) Forest Health Protection and Genetic Resource programs and FHP-WO (Gary Man and Bruce Moltzan) for funding, and Joan Dunlap and the Region 5 Genetics program for providing seedlots for the trials. The Bureau of Land Management hosts a small field planting at their Tyrrell Seed Orchard near Lorane, Oregon. Douglas P. Savin provided assistance with analyses. Dessa Welty assisted in packaging and shipment of seed. Deems Burton provided the background photo and photo of a mature FTP.