

2021 Pygmy Rabbit Surveys



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Life History



Sagebrush obligate

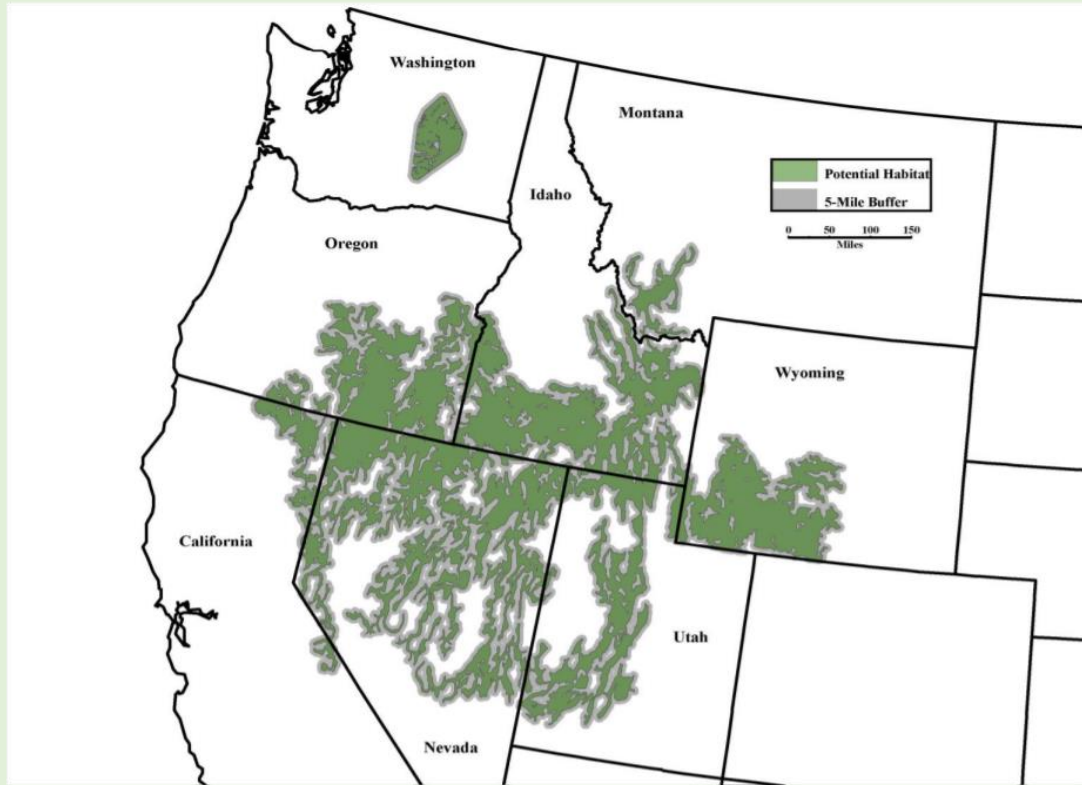


North America's smallest rabbit

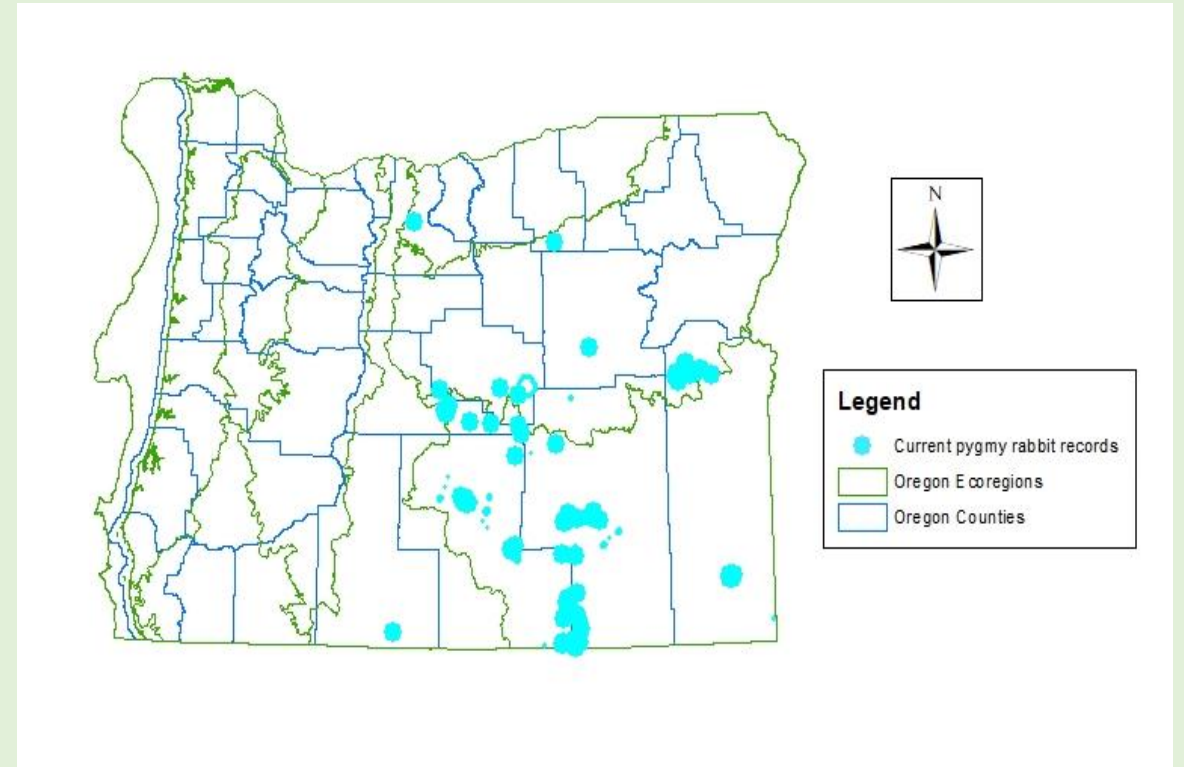


Only rabbit native to the U.S. the digs its own burrows

Distribution



U.S. Fish and Wildlife Service (2010). Historic Distribution of Pygmy Rabbit



Oregon Biodiversity Information Center (2020). Biotics rare species database

Threats and Species Status

- Changes to Habitat quality and quantity
 - Climate change: drought, wildfire
 - Anthropogenic conversion (e.g. agriculture, energy development, roads)
 - Annual grass and juniper invasion
- Oregon Conservation Strategy and state sensitive species in Northern Basin and Range ecoregion
- USFWS species of concern



Previous work in Oregon

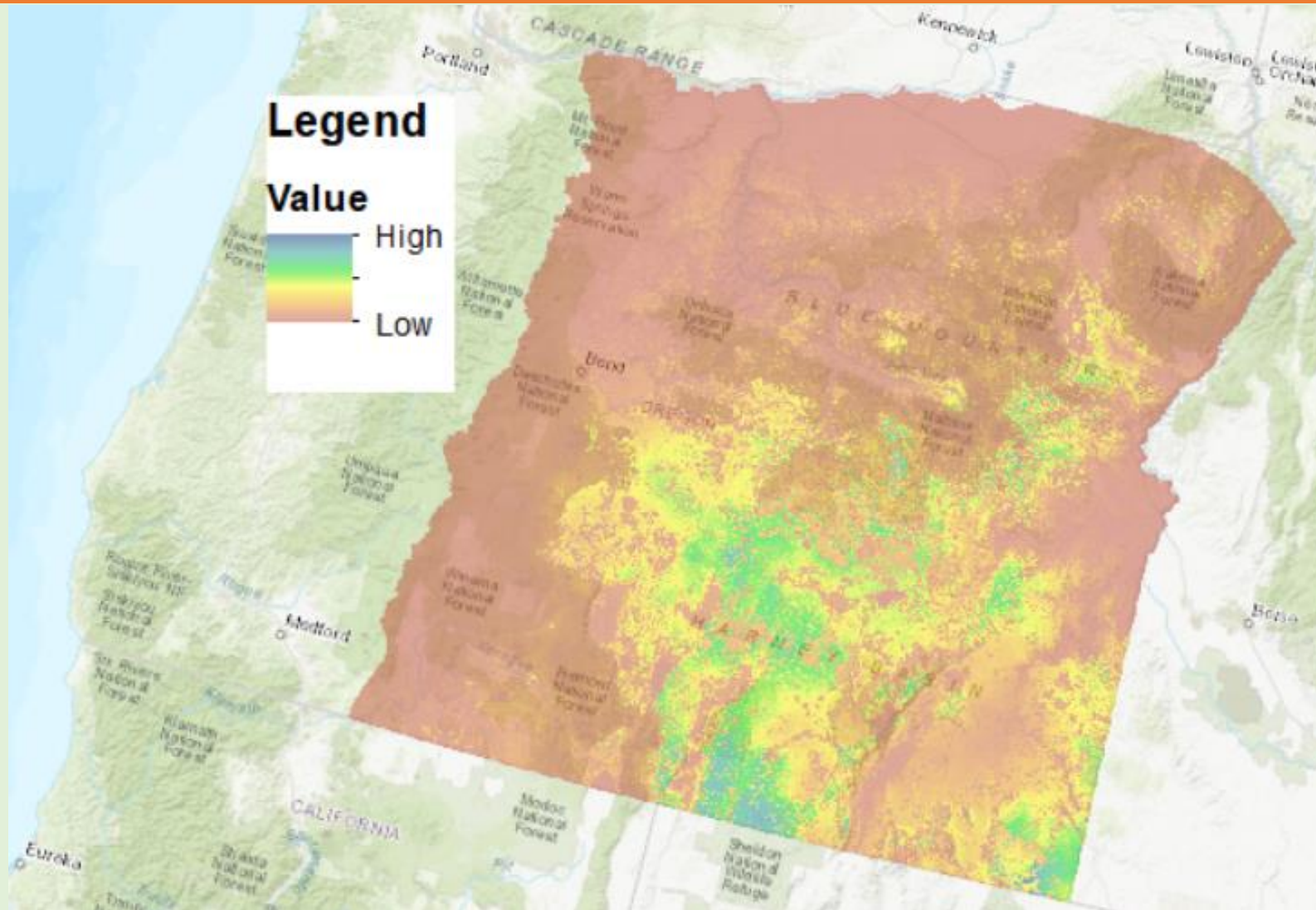
- Surveys on state lands in SE OR in 2004-2005 (Hagar and Lienkaemper 2007)
- BLM surveys (2003-2011)
- Telemetry studies
 - Weiss and Verts (1984)
 - Crawford (2008)
 - Crawford et al. (2010)
 - Lawes et al. (2013)
- U of I range-wide species distribution model (Smith et al. 2019)

Pygmy Rabbit Surveys 2021

- Assess current status of historically surveyed pygmy rabbit sites
- Estimate distribution of pygmy rabbits
- Establish appropriate survey methodology

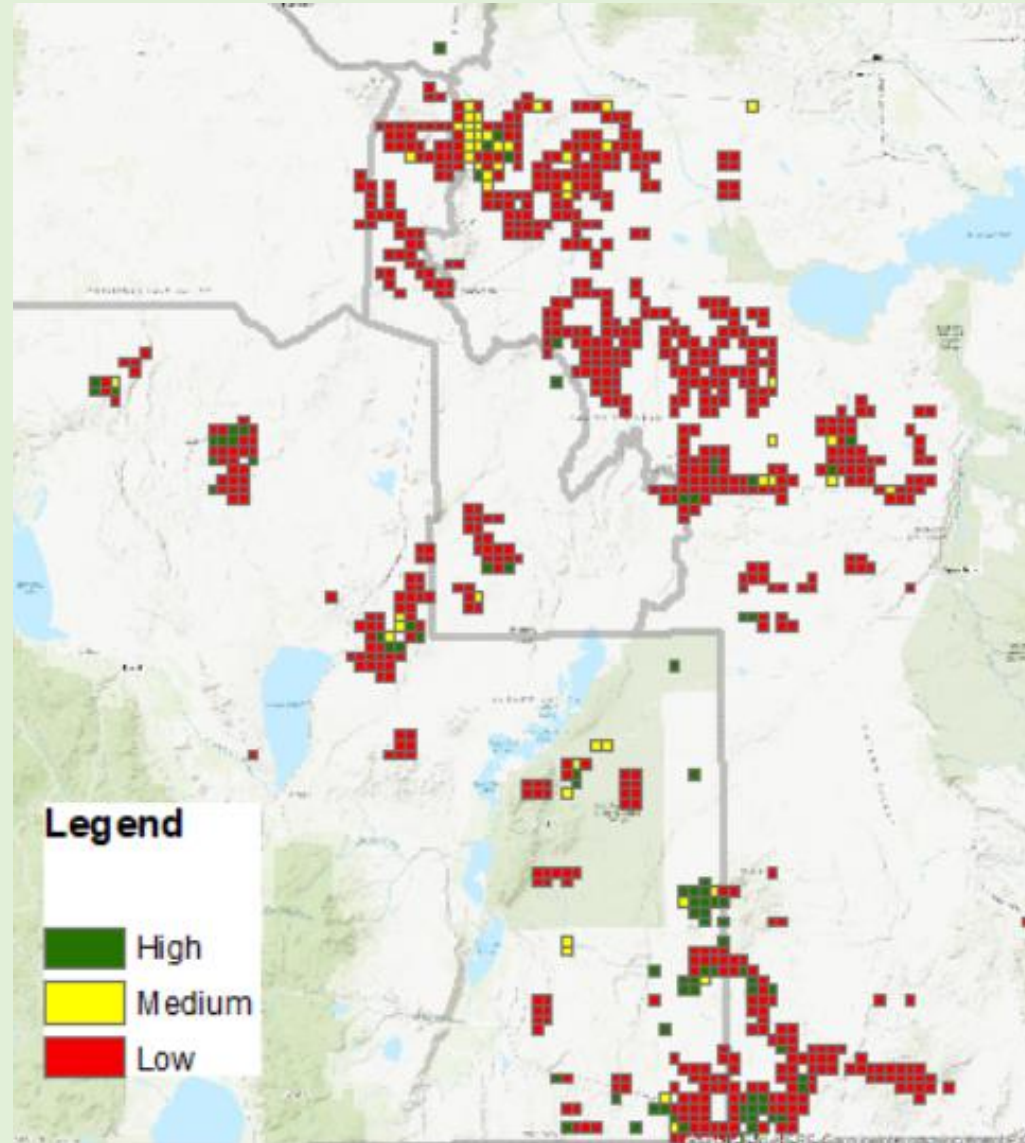


Methodology: Site Selection



Smith et al. (2019) Pygmy Rabbit Species Distribution Model

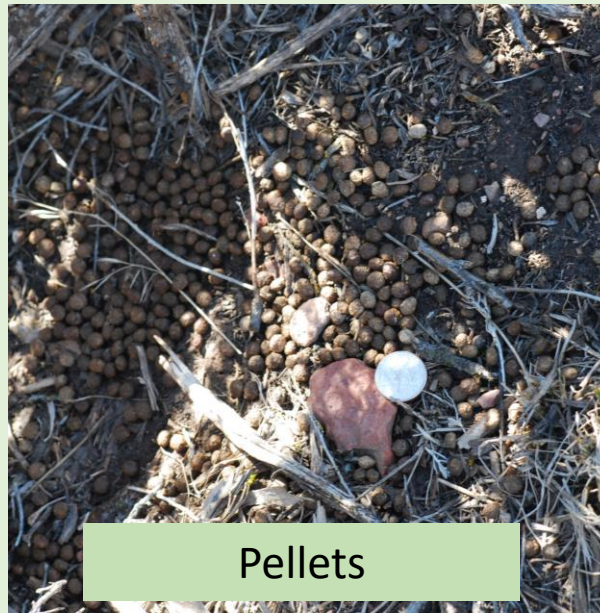
Methodology: Site Selection Cont.



Methodology: Survey Protocol

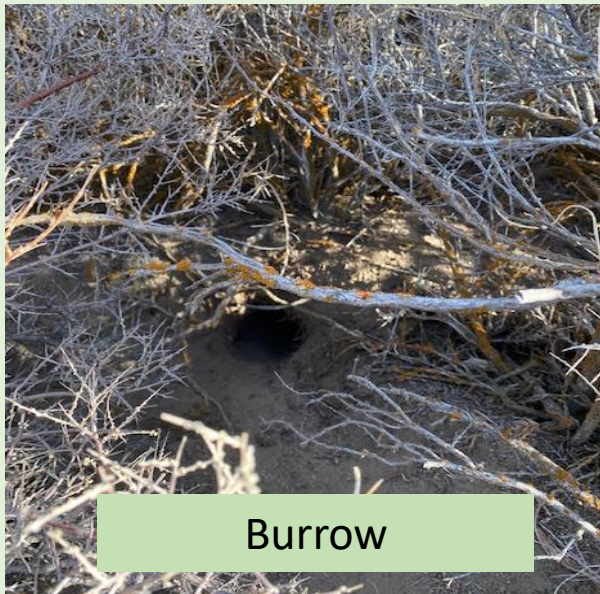


Meander surveys throughout
selected grid cells



Pellets

+



Burrow



Place camera to monitor
activity

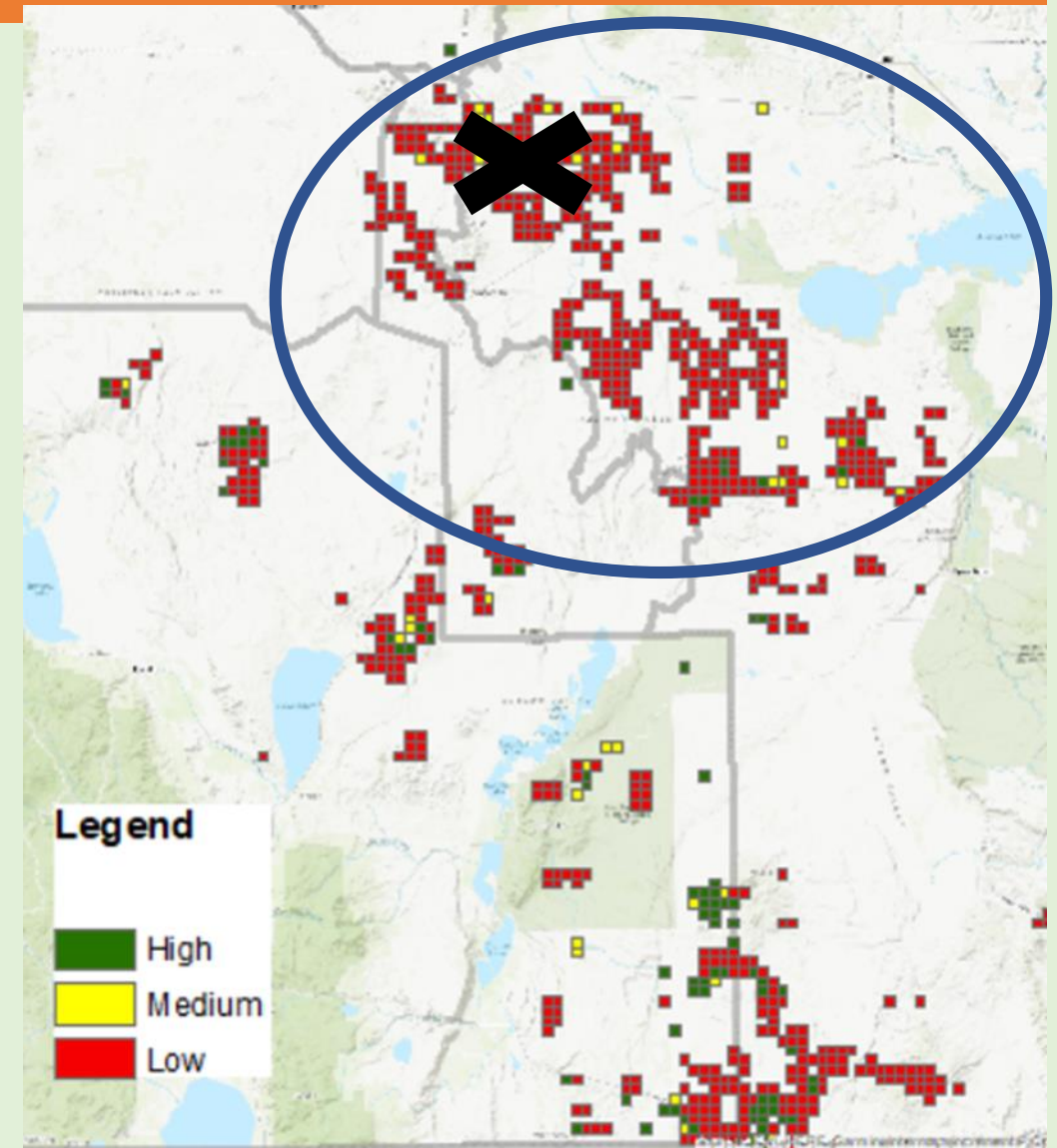
Preliminary Results

- Surveyed 46 grid cells
 - 12 active burrows
 - 3 we were able to get photo verification
 - 10 were no longer suitable habitat for pygmy rabbits due to fire/annual grass invasion



Preliminary Conclusions: Historical Sites & Distribution

- 26% of the cells in that had historical observations we surveyed were still occupied
- 22% of the sites we surveyed were no longer suitable habitat
- Losses of habitat and historical location mostly in northern portion of survey area



Preliminary Conclusions: Survey Methodology



- This methodology can successfully be used to document and verify active pygmy rabbit burrows
 - Several entrances to burrow system makes documentation difficult
 - Can document predator presence and richness
 - Can document “false” pygmy rabbit burrows

Next Steps

- Secured Funding through BLM Good Neighbor Authority Agreement for fund 2 technicians for the next 3 years
 - Will be able to double our effort and expand our surveys to entire range of pygmy rabbits in OR
- Participating in Climate Refugia Workshops through the University of WA
 - Pygmy rabbit is a focal species
 - Working with partners to identify areas of refuge and resilience on the landscape

Acknowledgments and Works Cited

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Works Cited

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Questions?