Chapter 5: Marbled Murrelet
Speaker: Martin G. Raphael, Emeritus Scientist, PNW Research Station

Authors

- Martin G. Raphael, Emeritus Scientist, PNW Research Station

- Gary Falxa, US Fish and Wildlife Service, CA (retired)
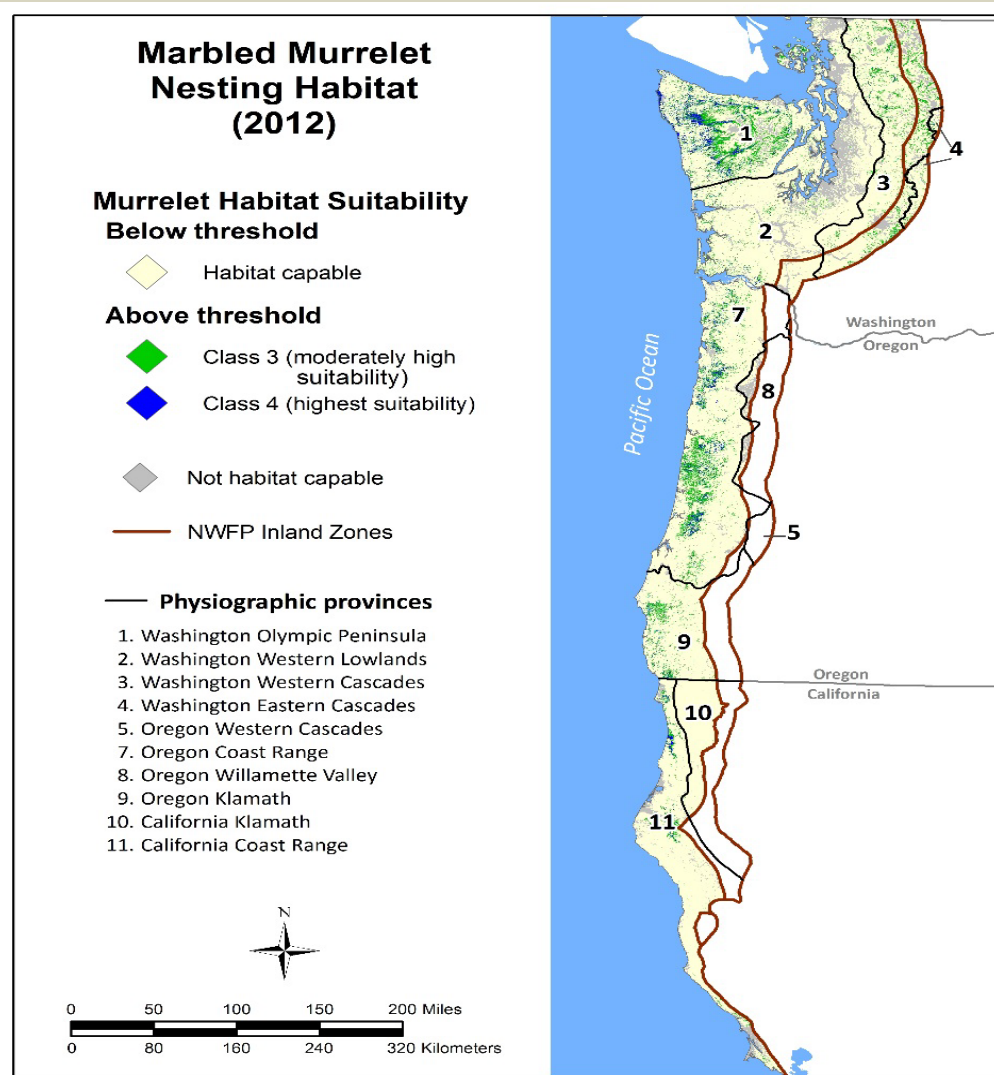
- Alan Burger, University of Victoria, BC Canada

Nests in trees, feeds in seas

Distribution of nesting habitat

Marbled Murrelet Nesting Habitat (2012)

Murrelet Habitat Suitability

Below threshold
- Habitat capable

Above threshold
- Class 3 (moderately high suitability)
- Class 4 (highest suitability)

- Not habitat capable
- NWFP Inland Zones

Physiographic provinces
1. Washington Olympic Peninsula
2. Washington Western Lowlands
3. Washington Western Cascades
4. Washington Eastern Cascades
5. Oregon Western Cascades
7. Oregon Coast Range
8. Oregon Willamette Valley
9. Oregon Klamath
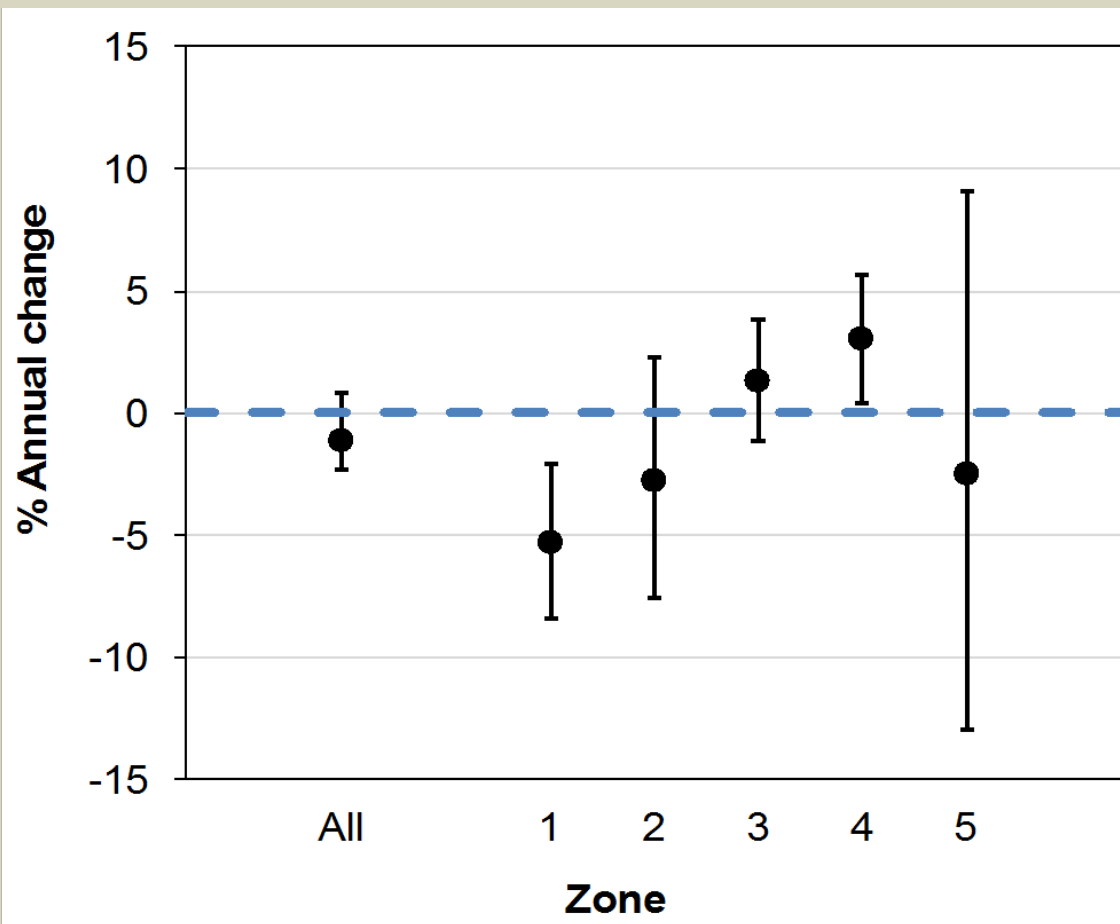10. California Klamath
11. California Coast Range

Key Findings: Population density and distribution

❖ Highly variable across range
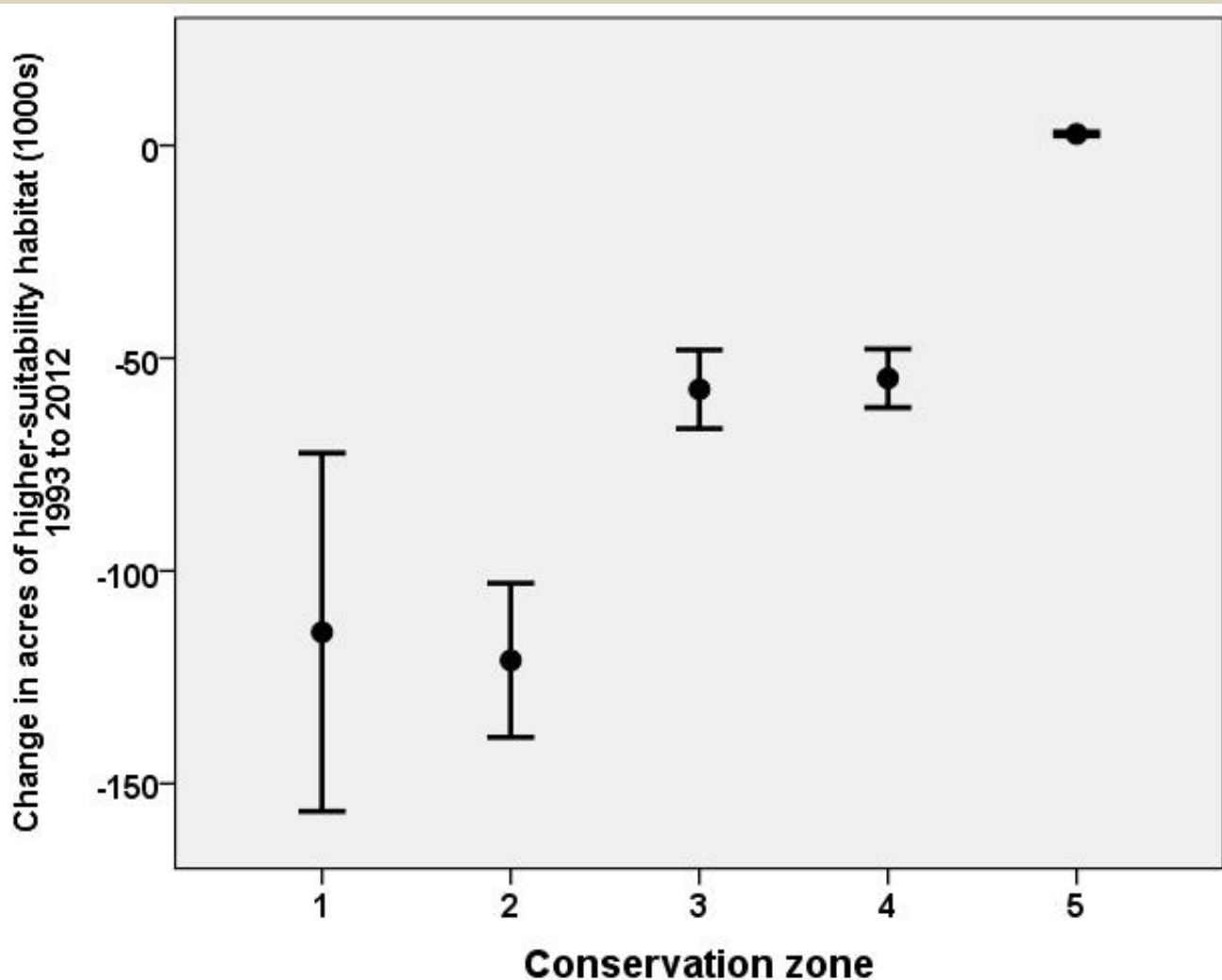
❖ Highest numbers offshore of nesting habitat
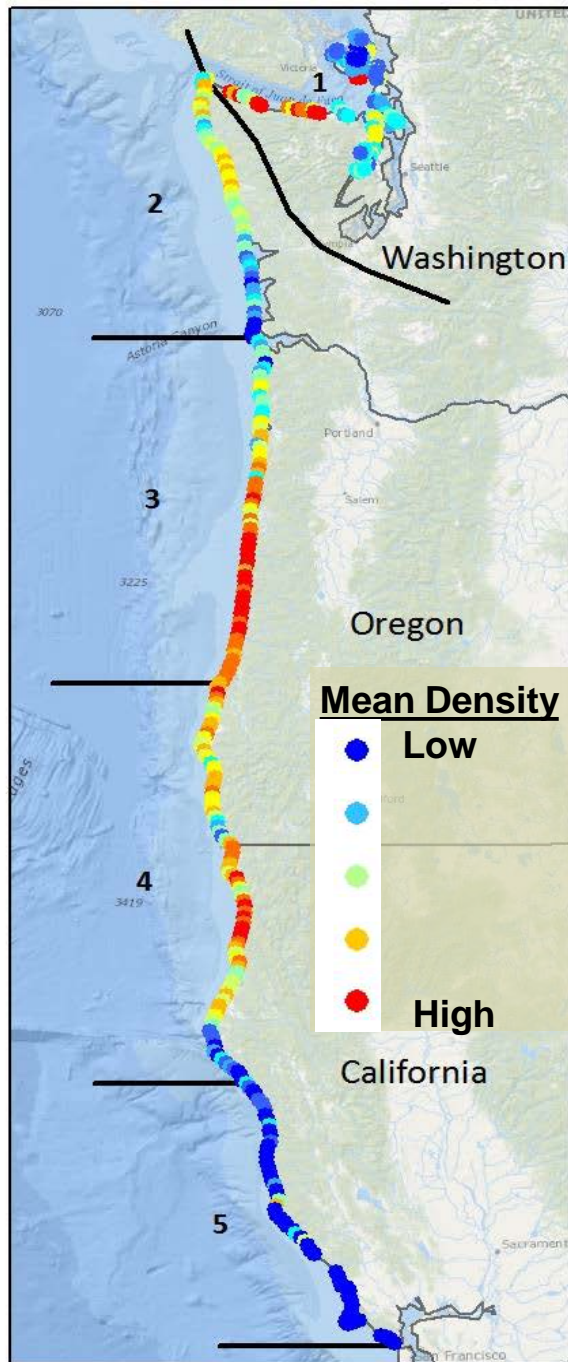
Key Findings: Population trend

Habitat loss from 1993 to 2012 by zone

Habitat loss, Federal and Nonfederal

On Federal Lands:
- 2% Loss
- Due to fire

On Nonfederal Lands:
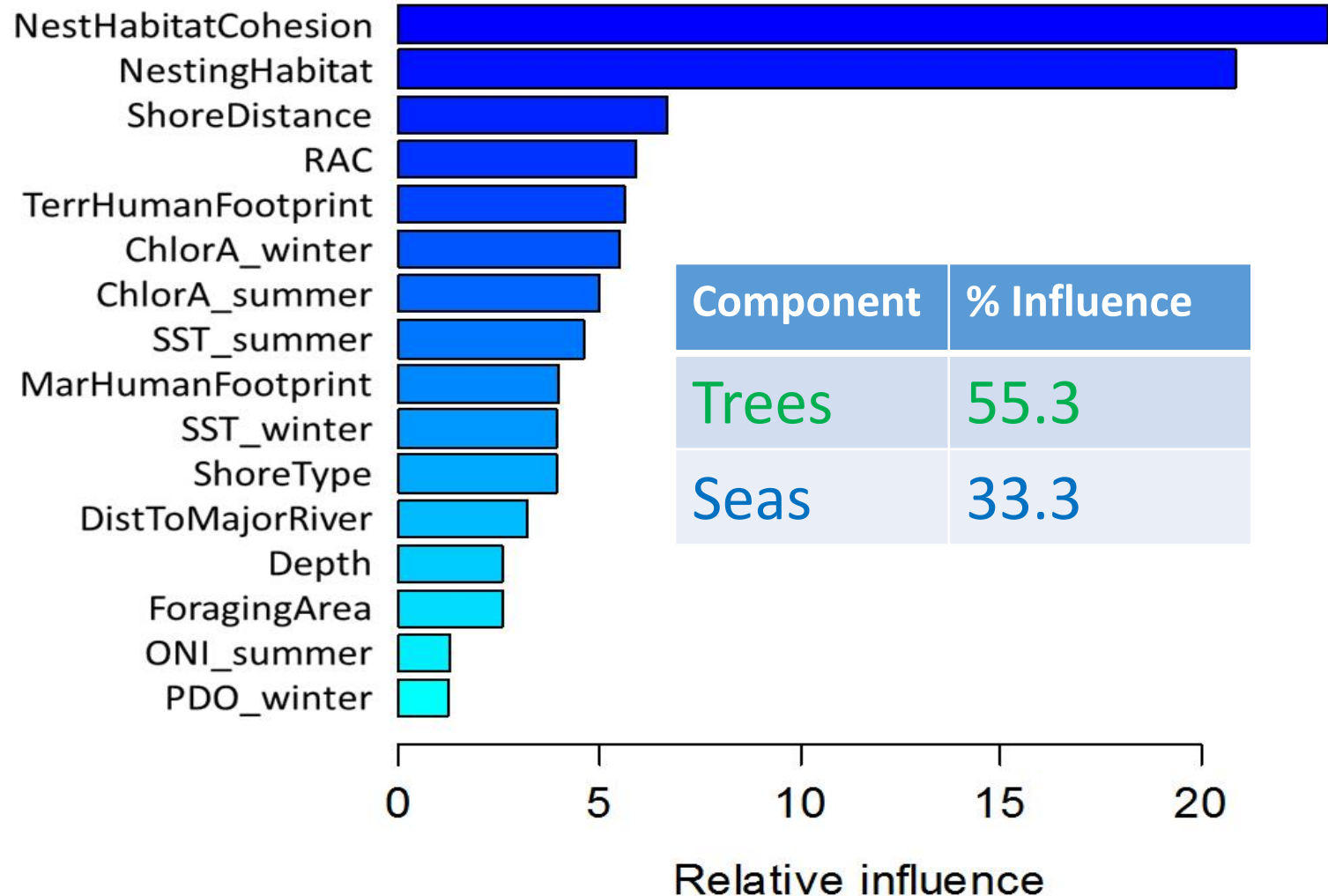- 27% Loss
- Due to harvest

Limiting factors: Is it the seas or the trees?

Component	% Influence
Trees	55.3
Seas	33.3

Key Uncertainties

- Future nesting habitat
- Factors affecting rate of nest depredation
- Foraging habitat and prey biomass
- Drivers of annual population change
- Climate change

Conclusions

➢ Conservation of nesting habitat seems to be key to murrelet conservation

➢ So far, NWFP reserve system is protecting nesting habitat

➢ NWFP goal to conserve murrelets by maintaining (short-term), and increasing (long term) nesting habitat remains valid