

Northern Spotted Owl monitoring on Marin Water Lands



Point Blue
Conservation science
for a healthy planet.



**MARIN
WATER**

Marin Water Watershed Committee Mtg
December 12, 2023

Presentation Outline

- Northern Spotted Owl Overview
 - Range, habitat
 - Conservation (T&E status, threats)
- Monitoring program
 - Objectives, partners, data
- Results (1999-2023)



Photo by Maggie Brown

The Northern Spotted Owl

- Range from BC to Marin County
- Iconic species of old growth forest
- Listed as Threatened (Fed & State)
- Current top range-wide threats: habitat loss & competition with Barred Owls



NSO in Marin County

- No commercial timber harvest
- Very few Barred Owls
- “Urban” owls in Wildlife-Urban Interface
- Stable Population

Potential Threats:

- Barred Owls
- Habitat loss
- Climate change
- High-Severity Fire
- Noise and other disturbance
- Rodenticide poisoning
- Genetic Isolation
- Sudden Oak Death



Spotted Owl
Fledgling!



Spotted Owl Nesting Habitat in Marin



Long-term monitoring in Marin

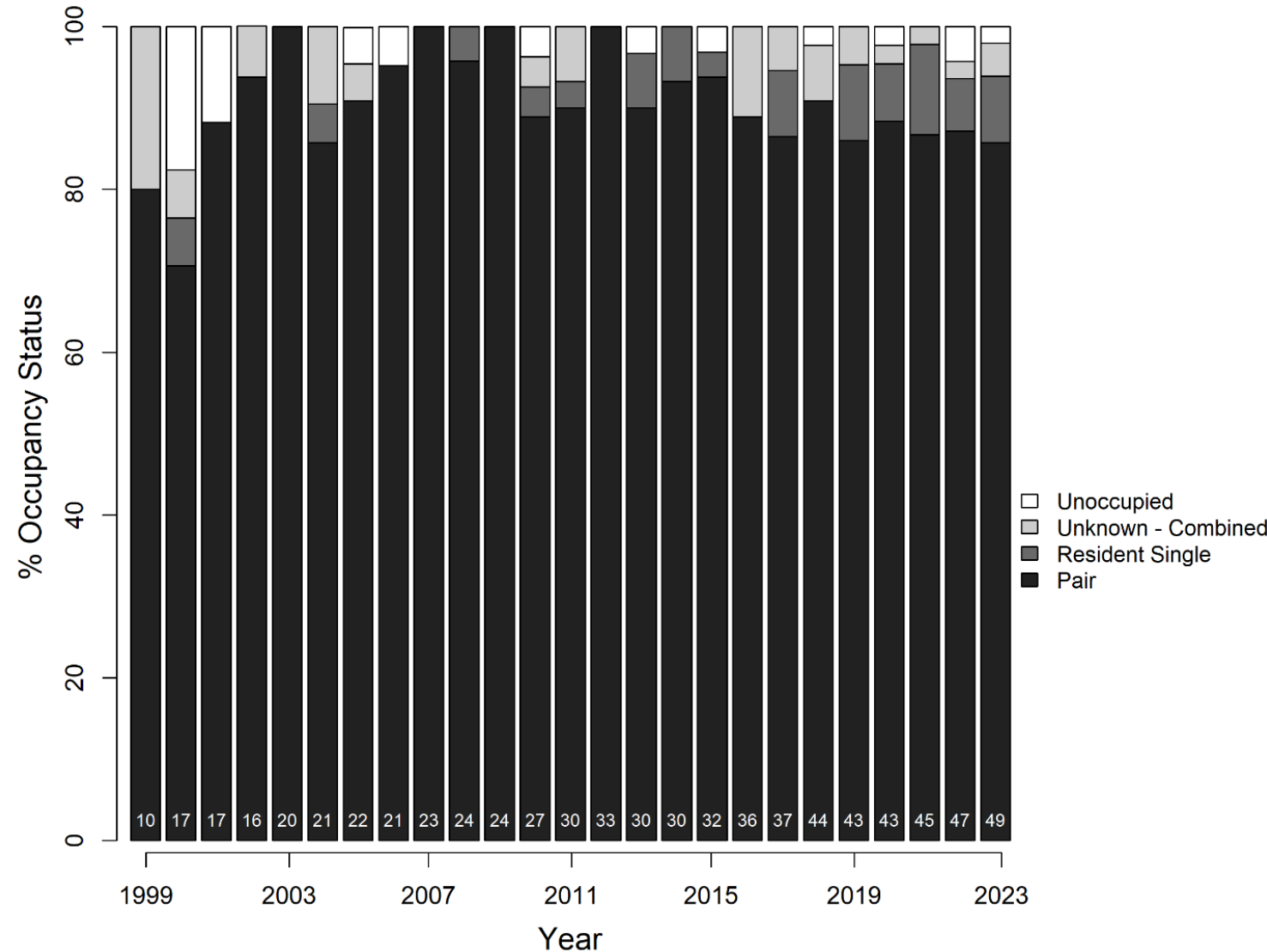
- Surveys on Marin Water lands part of county-wide monitoring
- Long-term data 1999-2023: occupancy & reproductive success
- Annual Point Blue reporting combines Marin Water and Marin County Parks results (51 sites in 2023)
- Real-time results to land managers to avoid disturbance to nesting owls



Private &
Municipal
Lands

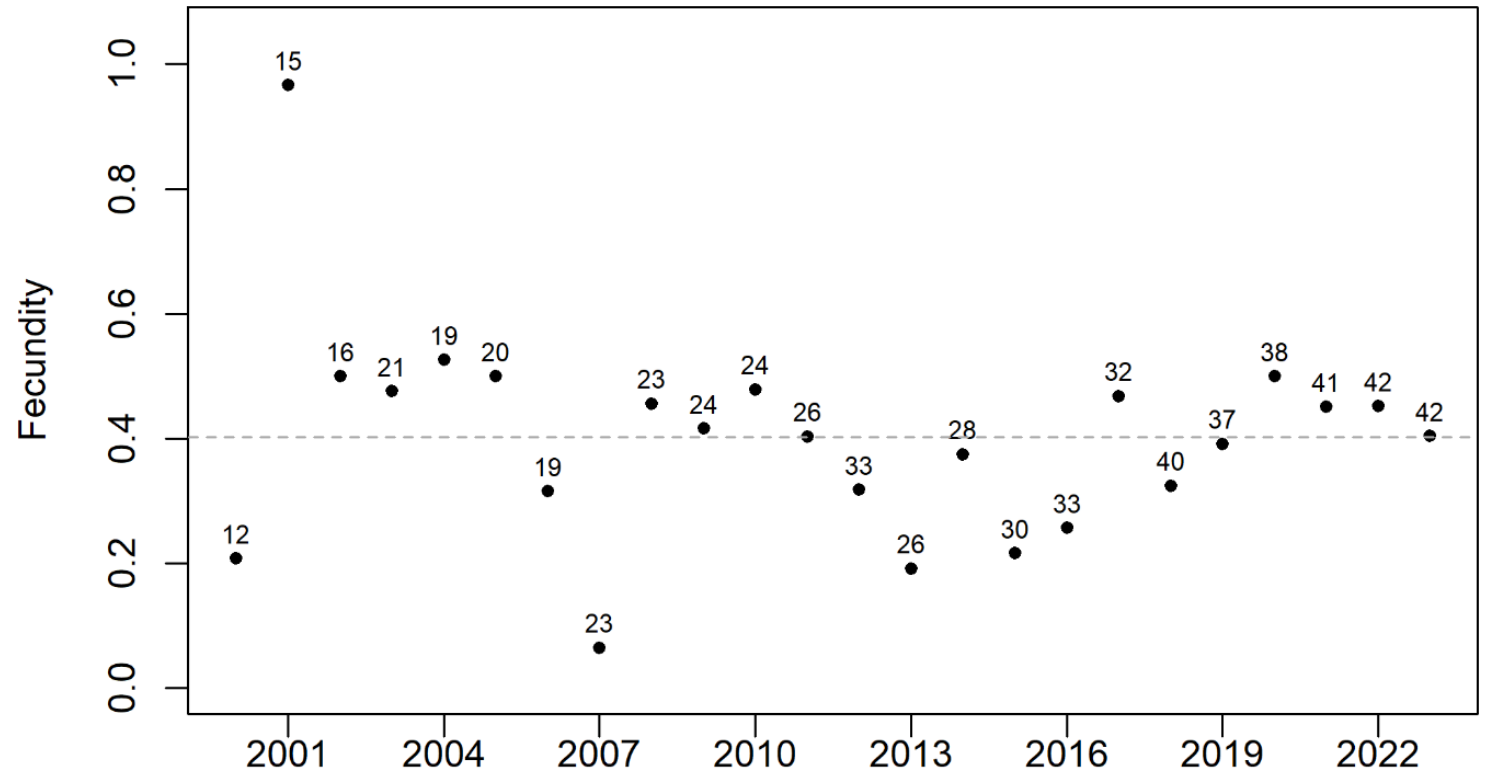
Results - Occupancy

- The proportion of sites occupied by pairs has been high throughout the study period
- 2023: 86% of sites occupied by pairs (study average = 90%)
- More sites monitored every year



Results – Reproductive Success

- Fecundity measures reproductive success:
female young / adult female
- 2023 fecundity = study average (dashed line)
- No significant trend over time



2023 Summary

- NSO pairs documented at most sites again in 2023
- Relatively high & stable reproduction
- Stable NSO population in Marin County is unique in range
- Mosaic of protected habitats & low number of Barred Owls likely drives
- Monitoring NSO on Marin Water lands is an important part of evaluating population health for this Threatened subspecies, and for avoiding disturbance to nesting owls.



Thank You!

- Marin Municipal Water District
- Marin County Parks
- California Dept. of Fish and Wildlife
- California State Parks
- City of Mill Valley
- City of Novato
- National Park Service
 - Point Reyes National Seashore
 - Golden Gate National Recreation Area
 - Muir Woods National Monument
- Town of Ross
- U. S. Fish & Wildlife Service
- Many **private landowners** who allow us to access their properties
- All **biologists** who have collected data over the years