

# Amphibians: Are we keeping up with the needs of specialized species?



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# Acknowledgments



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- ASRP Funding

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- Amphibians are indicators
  - Complex & varied life history integration
  - Require moist or fully-aquatic (micro)habitats
  - Critical role in ecosystem function
  - Co-occur with and reflect impending impacts to other aquatic species

# Four Characters

**Stream Amphibians**



**Western Toads**



**Oregon Spotted Frogs**



**Stillwater Amphibians**



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  - Cascade Torrent Salamander (SGCN)
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  - Cope's Giant Salamander (SGCN)
  - Coastal Giant Salamander
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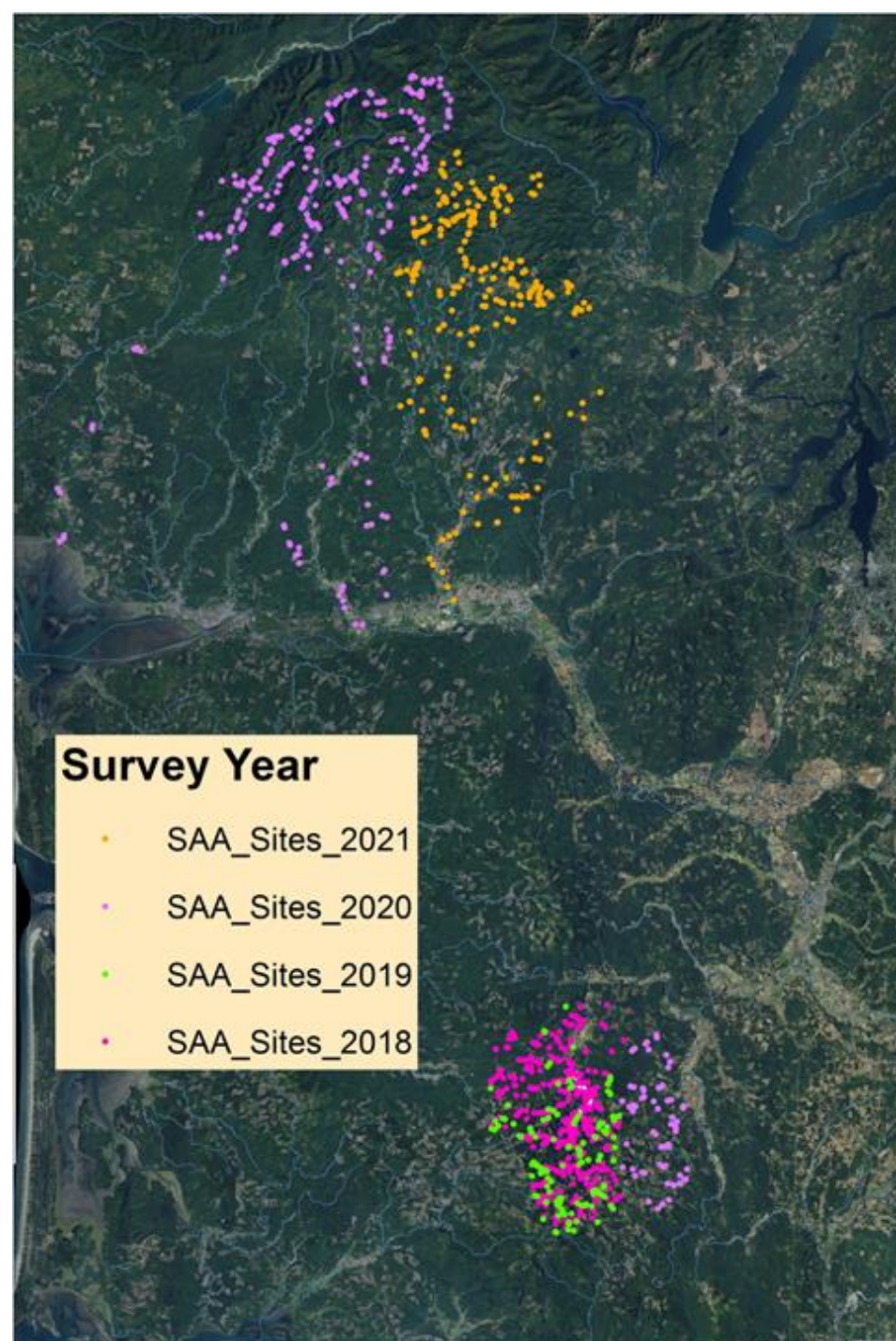
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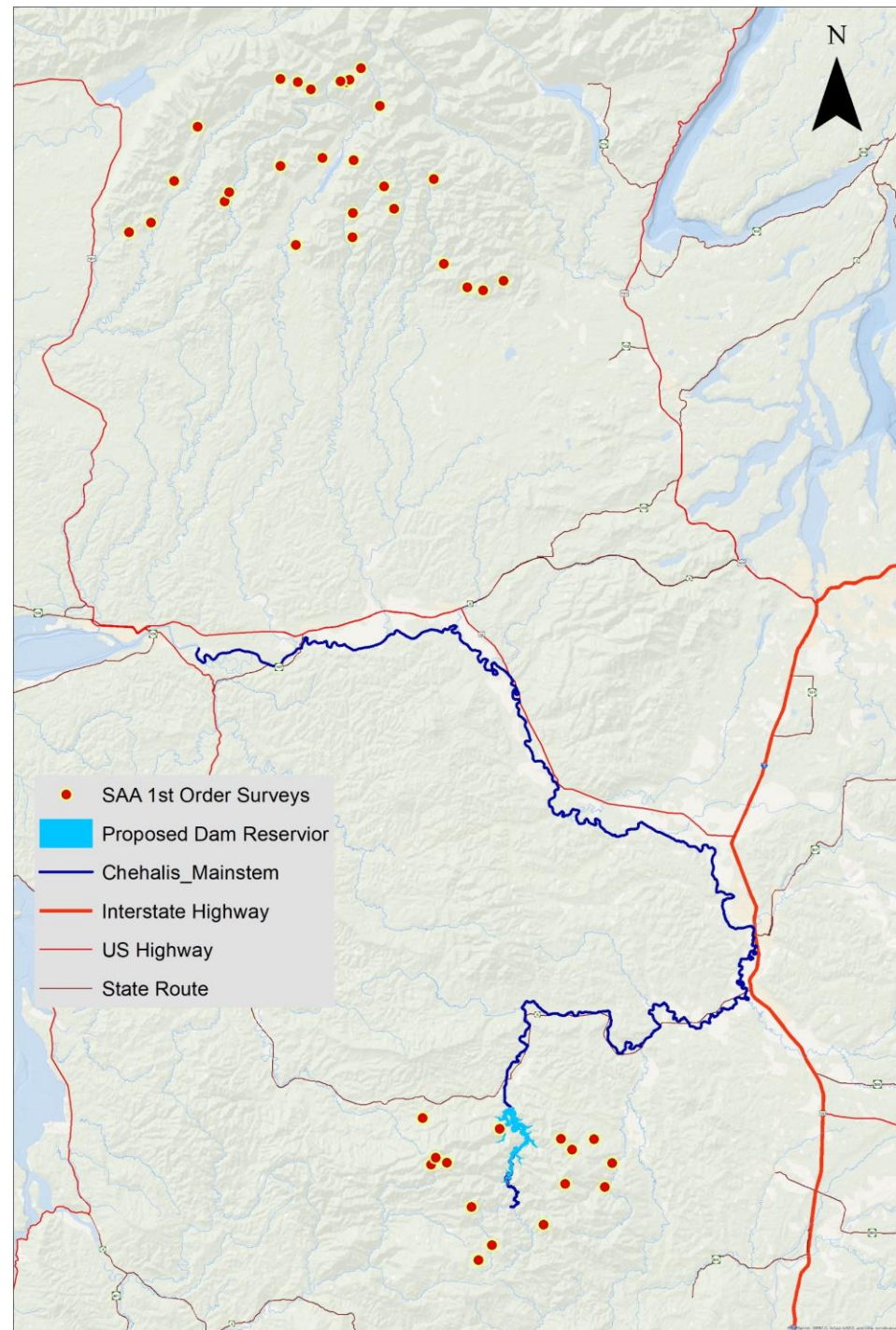


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- Live upstream from fish
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- Bellwethers of climate change
- Restoration / Habitat Enhancement Actions are largely unexplored
  - Forest protection is key
  - Sediment wedges may enhance pool habitat, water storage

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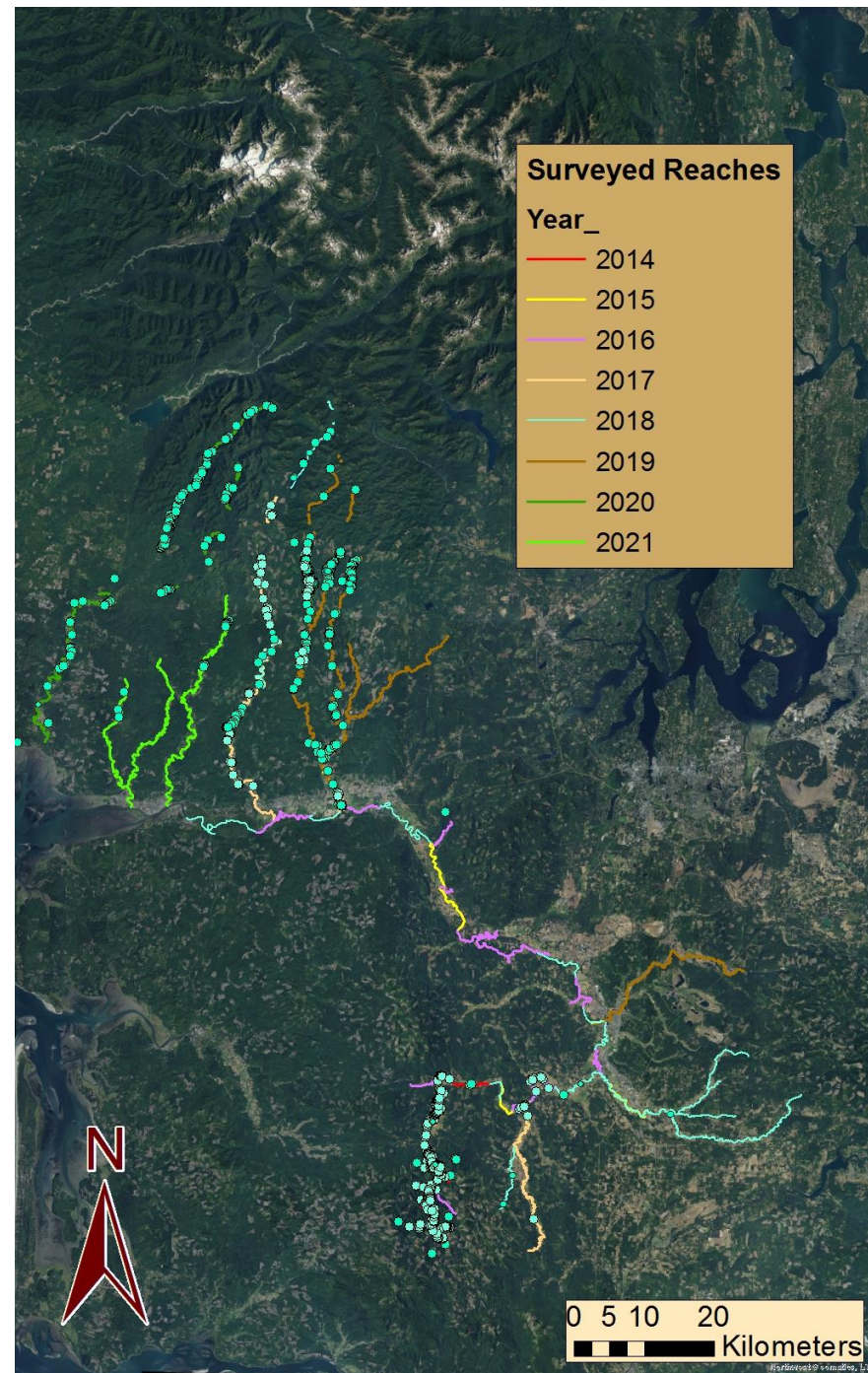


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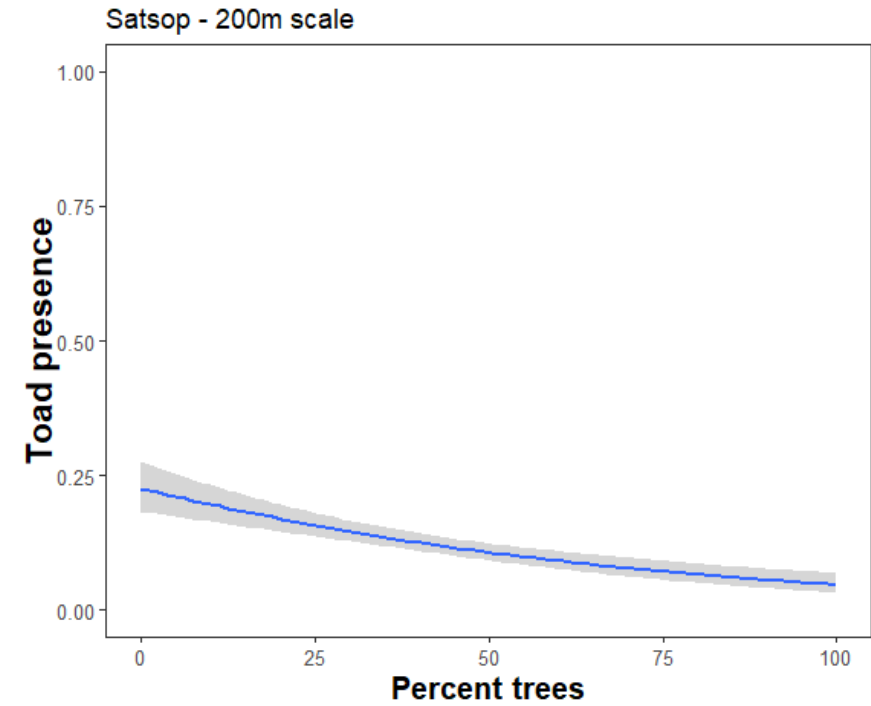
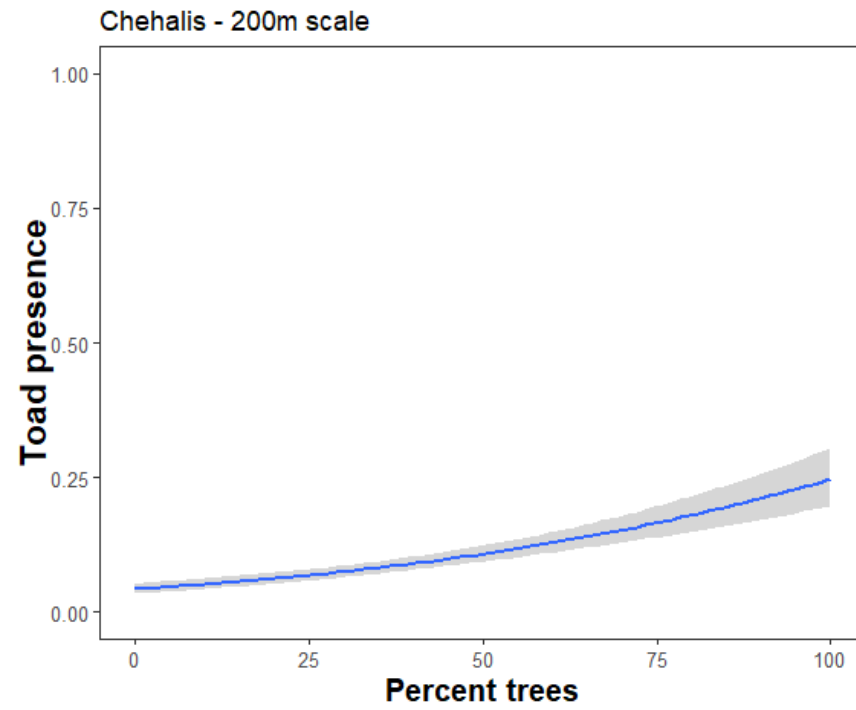


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- Management:
  - Salvage during in-stream restoration work
  - Timber harvest or controlled burns could open canopies
  - Large wood in-stream could help with channel meandering

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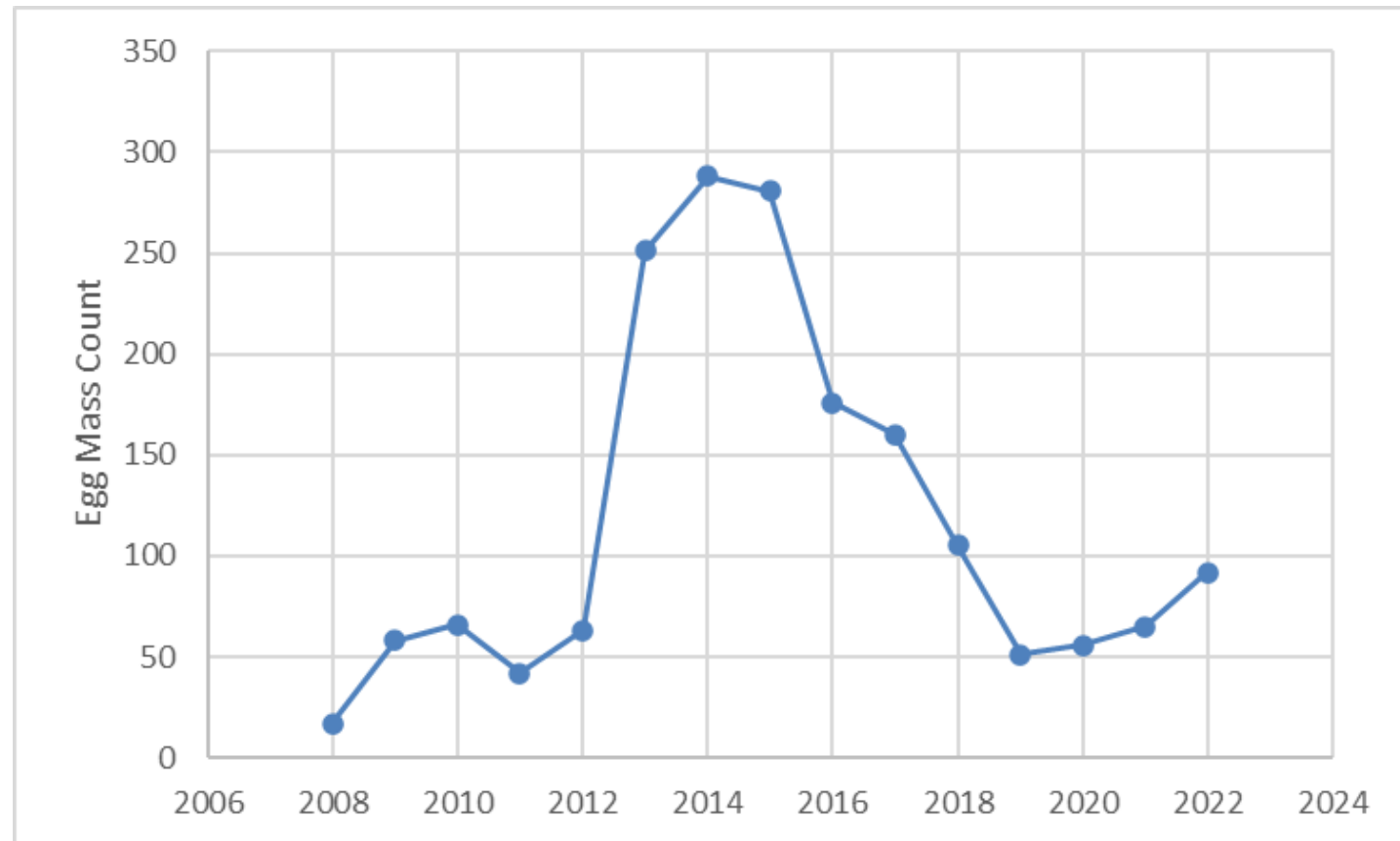
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- Management / Protection is active and needs further support
  - Acquisition
  - Reed canary grass mowing + Willow abatement
  - Hydrological monitoring + modeling
    - Potential for pond creation & BDA installation
  - Translocation?

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- Huge restoration potential via constructing ponds & managing veg
- Indicators of restoration success
- Active restoration studies
  - Satsop pond restoration, BDAs, Sediment Wedges, Reconnection

# Are we meeting amphibians' needs?

Expected Outcomes for Native Species from Restoration Scenarios (Table 7-2, ASRP Phase 1)



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  - Increase occupancy / abundance in off-channel habitats ✓ ✗

# Questions

