Lamprey conservation plans: informational updates

Exhibit G

March 20, 2026

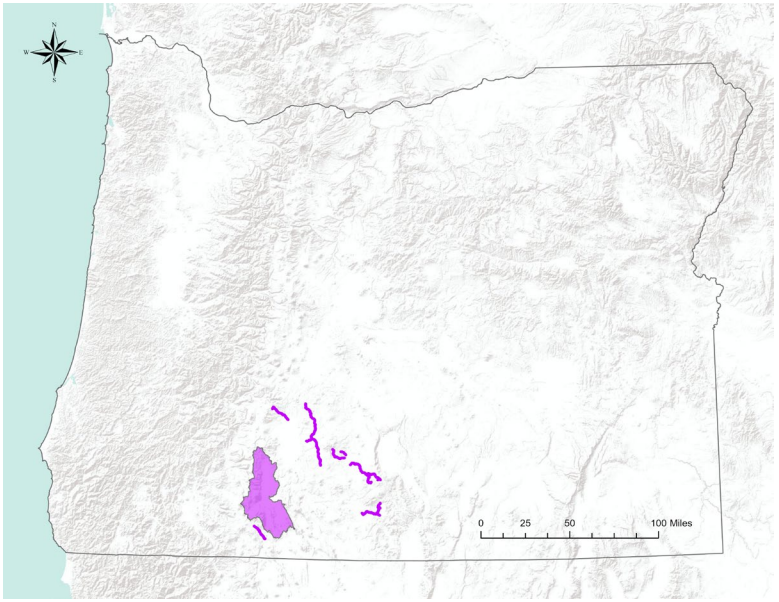
Benjamin Clemens
Statewide Lamprey Coordinator

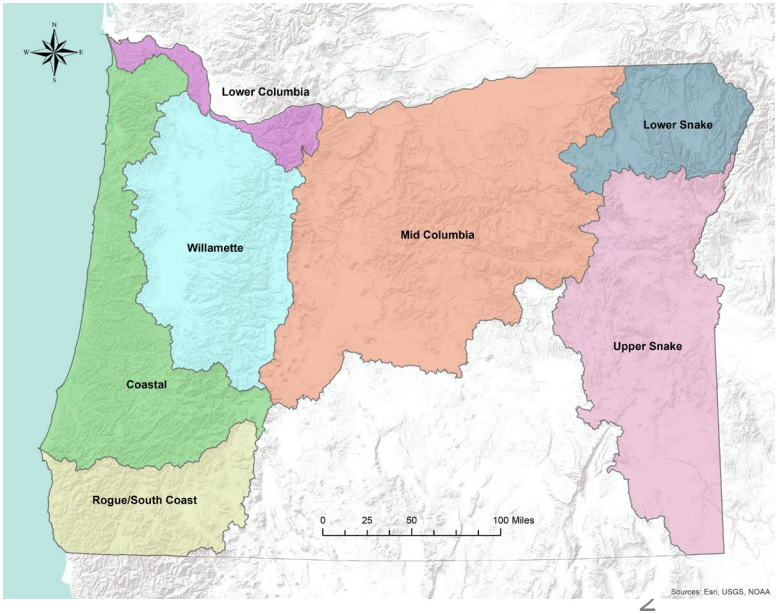
Oregon Department of Fish and Wildlife

Two plans

1. The Miller Lake Lamprey Conservation Plan
   - Miller Lake lamprey
   - Adopted by Commission in 2005

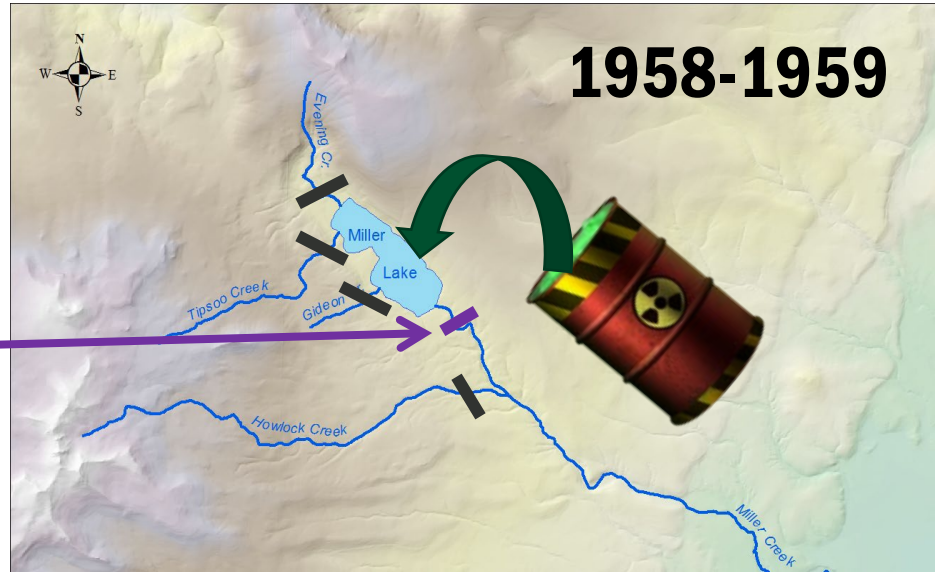
2. The Coastal, Columbia, & Snake Conservation Plan for Lampreys (Conservation Plan for Lampreys)
   - Pacific lamprey
   - Western brook lamprey
   - Western river lamprey
   - Pacific brook lamprey
   - Adopted by Commission in 2019





OREGON Fish & Wildlife

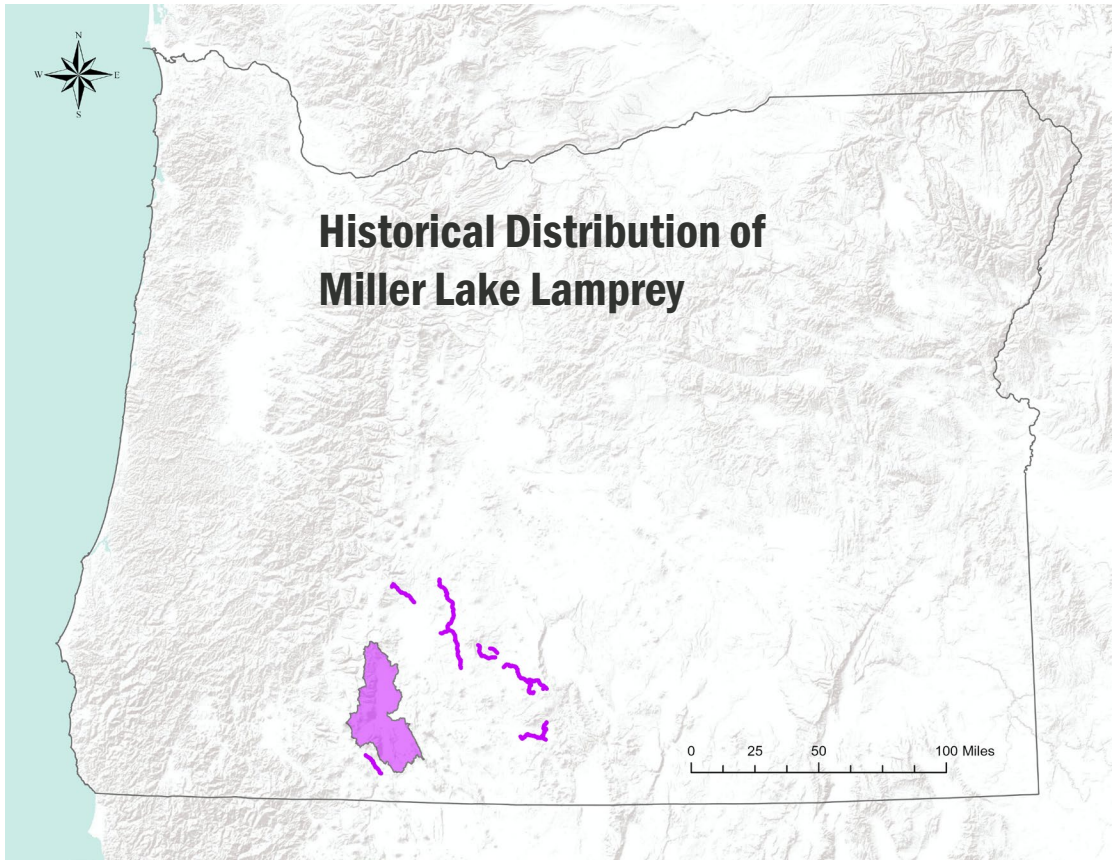
Miller Lake Lamprey History



The Miller Lake Lamprey Conservation Plan

(MCP; adopted 2005)

Primary plan goal was to re-establish species in Miller Lake



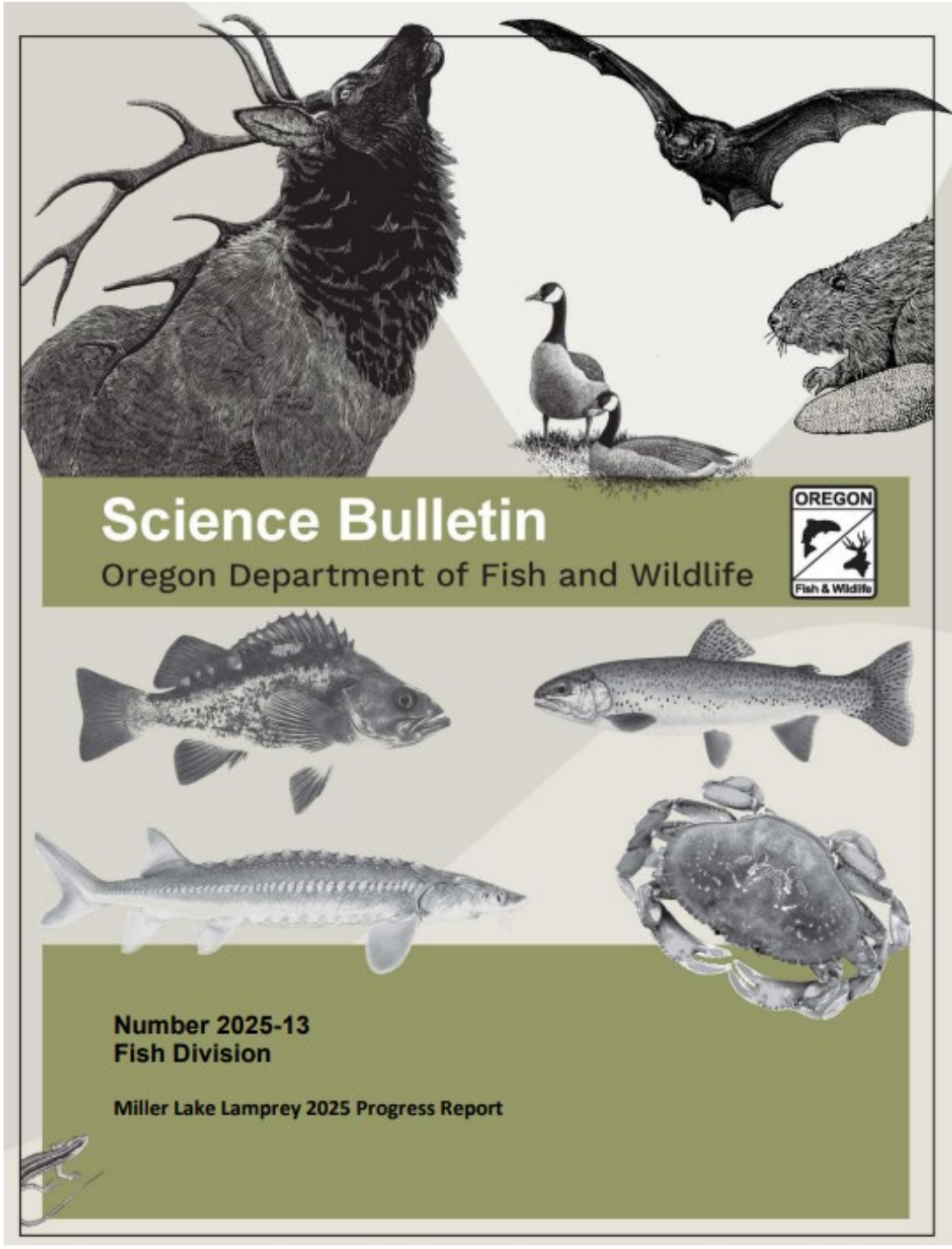
Plan Elements

- Management unit & populations
- Current (State Sensitive) & desired status
- Conservation actions to address limiting factors
- Management strategies
- Research, monitoring, & evaluation
- Adaptive management

OREGON Fish & Wildlife

Tracking and Reporting on Progress

- Annual surveys & progress reports
- 20th year report



Miller Lake Lamprey Technical Management Team

Implements plan actions for the MCP

Brandon Swanson, OPB

Primary management actions: barrier removal & reintroduction

Evening Cr.
Miller
Lake
Tipsoo Creek
Gideon Cr.
Barrier removed in 2005
Howlock Creek
Miller Creek
Donor site
Chemul
97

~5,230 lamprey reintroduced between 2010 & 2021

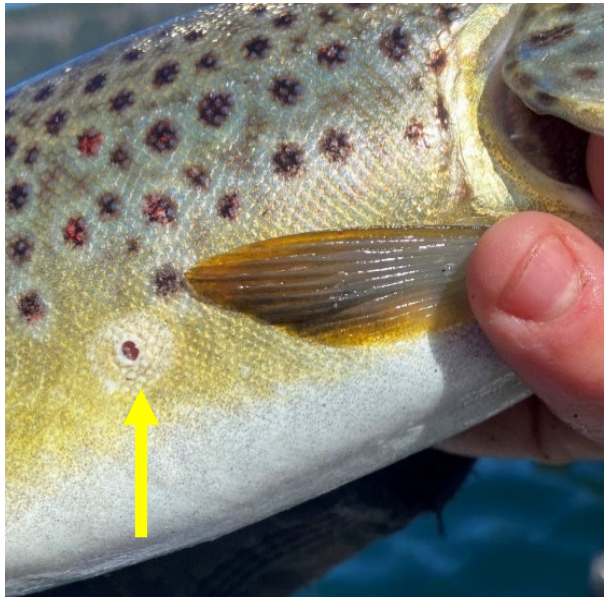
Lamprey reintroductions have been successful

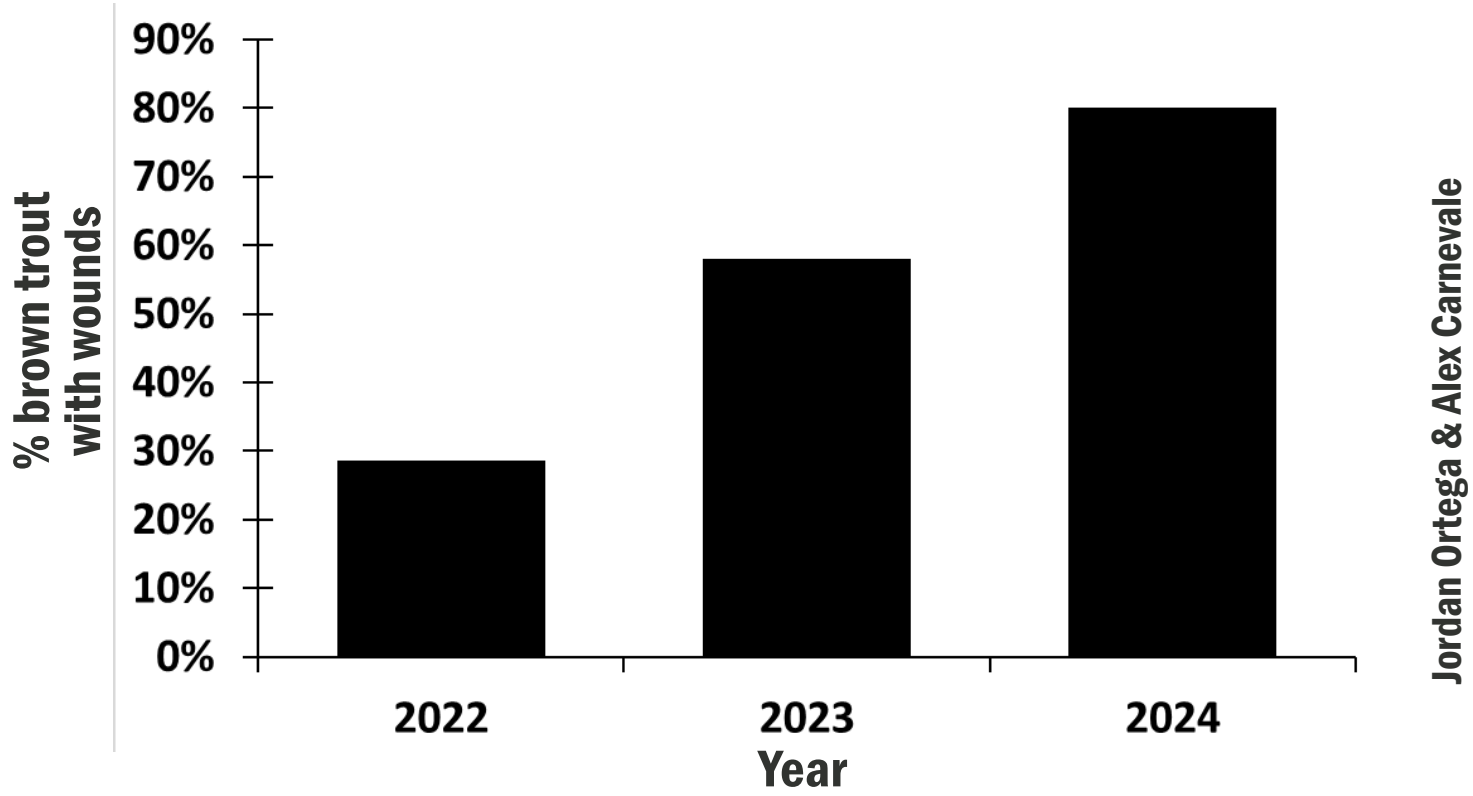
Starting in 2020, larvae were found up to 450 ft out into the lake

Evidence of reproduction: Small larvae (< 1") observed since 2015

OREGON Fish & Wildlife

Increased incidence of lamprey wounds on brown trout *in* Miller Lake indicates abundance is increasing





Jordan Ortega & Alex Carnevale

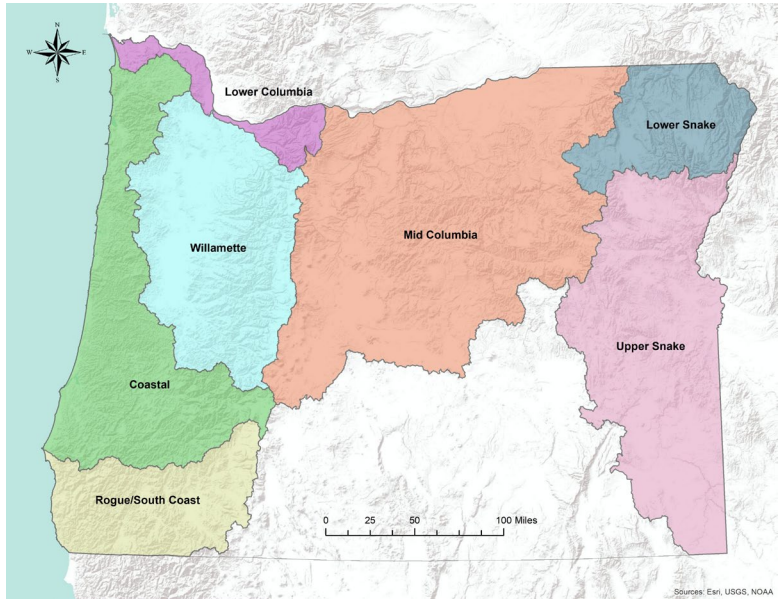
OREGON Fish & Wildlife

Implementation of plan actions have improved species status

- Miller Lake lamprey re-established in Miller Lake for the first time in ~60 years and are common to prevalent in lower Miller Creek and the upper basin.
- Continue annual surveys.
- Ascertain whether additional reintroductions are necessary.

The Coastal, Columbia, & Snake Conservation Plan for Lampreys (Conservation Plan for Lampreys)

(CPL; adopted 2019)



Pacific lamprey

Western brook lamprey

Western river lamprey

Pacific brook lamprey

Conservation Plan for Lampreys (CPL)

Plan Elements

- Management units
- Current and desired status
- Key limiting factors and threats
- Management strategies
- Research, monitoring, & evaluation
- Implementation

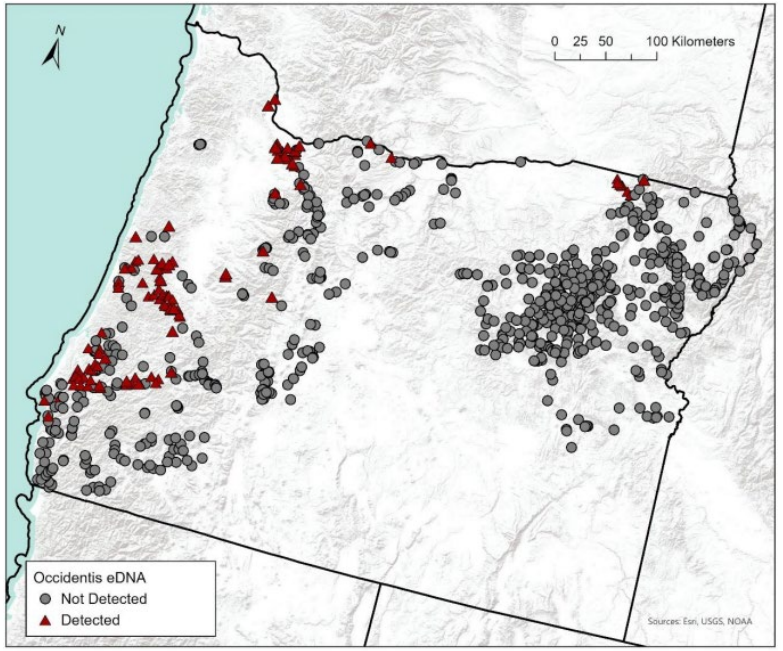
CPL strategies & actions

Research, monitoring, & evaluation

- Improve distribution info.
- Prioritize artificial obstructions for passage & screening
- Improve biological knowledge
- Estimate take
- Assess complex, large-scale threats
- Assess translocation
- Estimate adult abundance
- Monitor diversity

Management actions

- **Education & outreach**
- Passage & screening
- Protect & restore habitat
- Water conservation
- Translocation
- Establish in-water work Best Management Practices
- Modify non-native angling regulations
- Pinniped management
- Other management strategies



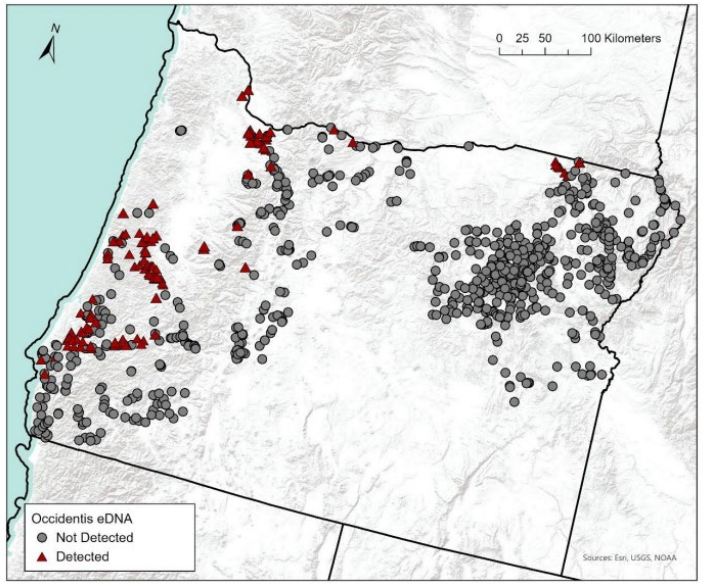
OREGON Fish & Wildlife

CPL reporting and assessment

- **5-year informational reporting**
- **Status assessment in 2040**

Credit: Dave Herasimtschuk, Freshwaters Illustrated

RME has improved understanding of lamprey distribution, limiting factors, and effective management actions



RESEARCH ARTICLE

WILEY

Spatio-temporal distribution of adult Pacific lamprey *Entosphenus tridentatus* relative to habitat fragmentation

Kara J. Anlauf-Dunn[1] | Benjamin J. Clemens[1] | Matthew R. Falcy[2] | Courtney Zambory[1]

Review

Management of anadromous lampreys: Common threats, different approaches

Benjamin J. Clemens[a,*], Hiroaki Arakawa[b], Cindy Baker[c], Stephen Coghlan[d], Aleksandr Kucheryavyy[e], Ralph Lampman[f], Maria João Lança[g], Catarina Sofia Mateus[h], Allison Miller[i], Hassan Nazari[j], Germán Pequeño[k], Trent M. Sutton[l], Seiji Yanai[b]

Abundance Trends for Adult Pacific Lamprey in Western Oregon (USA): Historic Declines, Recent Increases, and Relative Contributions from Coastal Rivers

Benjamin J. Clemens,* Matthew A. Weeber, and Mark Lewis
Oregon Department of Fish and Wildlife, 28655 Highway 34, Corvallis, Oregon 97333, USA

Michelle Jones
Oregon Department of Fish and Wildlife, 4034 Fairview Industrial Drive Southeast, Salem, Oregon 97302, USA

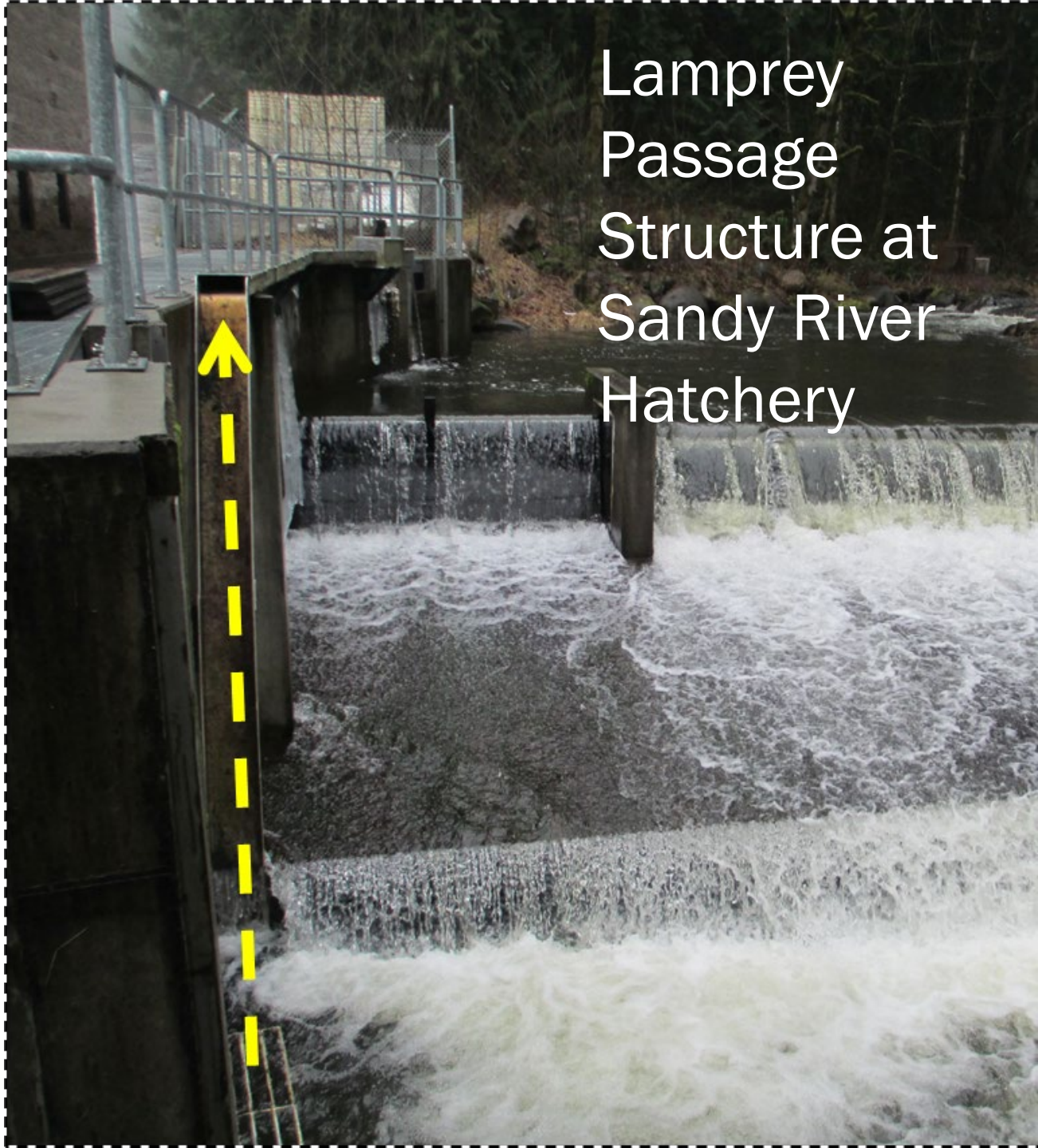
Management actions

Passage & screening

- Operations, maintenance, and management of existing passage & screening infrastructure follows latest technical guidance.
- Integrated lamprey and their passage needs into fish passage rule updates.

Protect & restore habitat

- Habitat restoration projects benefit lamprey.
- Instream water rights & other mechanisms protect water quantity & quality for lamprey.



OREGON Fish & Wildlife

Management actions

Establish in-water Best Management Guidelines

Best Management Guidelines for Native Lampreys During In-water Work

Management actions

Modify angling regulations for non-native fish to benefit lampreys and other native fish

- Sportfishing regulations removed all size and bag limits for:
  - walleye beginning in 2021 in the lower Willamette River
  - smallmouth, largemouth and spotted basses in 2023 in most Oregon streams.
- Size & bag limits had previously been removed for striped bass, and for bass and walleye in certain streams.

Management actions

Pinniped management

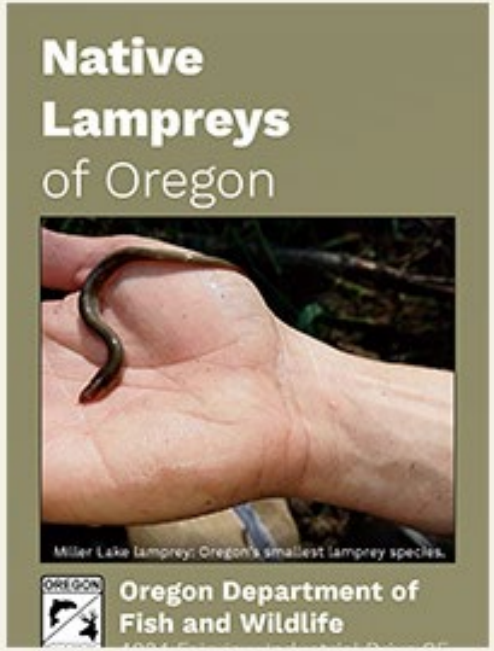
- Predation by California sea lions & Steller sea lions in tailraces of Bonneville Dam & the Willamette Falls Project affects salmon, steelhead, sturgeon, and adult Pacific lamprey.
- Since 2020, eligible states & Tribes can more readily seek pinniped removal in certain management areas.
- Monitoring & modeling of predation generally indicates decreases in both pinnipeds & their predation on salmonids, and this may be true for Pacific lamprey.

Bryan Wright, ODFW

OREGON Fish & Wildlife

Management actions – Education and Outreach

Oregon Lampreys



Learn more about Oregon's lampreys (pdf)

Lampreys as Bait flyer (pdf)

Lampreys Story Map

Conservation Plans for Lampreys

- Conservation Plan for Lampreys
- Miller Lake Lamprey Conservation Plan

ODFW Lamprey Website

Partnership with the Great Lakes and East Coast

2018 Lamprey ID workshop

2020 River Restoration Northwest Lamprey Short Course

2019 PSU Lamprey Short Course

2021-2022 Community Science

2022 Lamprey Biology & Identification Workshop

OREGON Fish & Wildlife

Partnerships

ODFW and its partners look forward to continuing to implement research, monitoring and evaluation and management actions to adaptively manage native lampreys.

Partners


PACIFIC
LAMPREY
CONSERVATION
INITIATIVE


NOAA
NOAA
FISHERIES


U.S.
FISH & WILDLIFE
SERVICE
DEPARTMENT OF THE INTERIOR


Bonneville
POWER ADMINISTRATION


EPA
United States
Environmental Protection
Agency

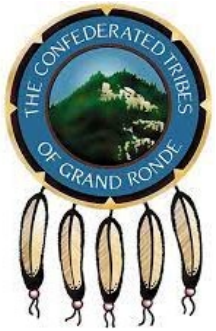

BLM


FOREST SERVICE
US
DEPARTMENT OF AGRICULTURE

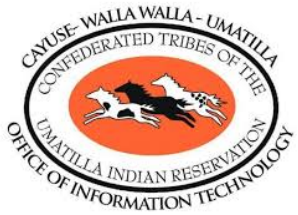

USGS
science for a changing world


CONFEDERATED TRIBES OF
WARM SPRINGS
1855


COW CREEK BAND OF
UMPQUA TRIBE OF INDIANS
1853-1982


THE CONFEDERATED TRIBES
OF GRAND RONDE


YAKAMA
NEZ PERCE
WARM SPRINGS
UMATILLA


CAYUSE · WALLA WALLA · UMATILLA
CONFEDERATED TRIBES OF THE
UMATILLA INDIAN RESERVATION
OFFICE OF INFORMATION TECHNOLOGY


CONFEDERATED TRIBES OF
SILETZ INDIANS


CONFEDERATED
TRIBES AND BANDS
YAKAMA NATION
TREATY OF
1855


CONFEDERATED TRIBES
OF COOS-LOWER UMPQUA-SIUSLAW


COQUILLE
INDIAN TRIBE


THE KLAMATH TRIBES
KLAMATH · MODOC · YAHOOSKIN


YUROK TRIBE

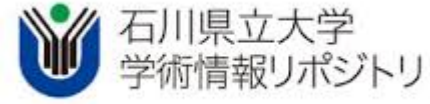

NEZ PERCE TRIBE
TREATY OF 1855


OREGON
Fish & Wildlife

Partners

Tenmile Lakes Basin Partnership

University of Idaho



Conclusions

- Significant progress by ODFW and partners:
  - Research to inform adaptive management
  - Continuing and improving on core actions
  - Education and outreach to inform public and resource professionals
- Will continue to implement plan

Questions?

Jason Dunham