

## PLCI and Resources

Christina Wang
U.S. Fish and Wildlife Service
Pacific Lamprey Conservation Initiative



# Pacific Lamprey Conservation Initiative Pácific Lamprey Regional Management Units Pacific Lamprey NatureServe Rankings California

# How is PLCI thinking about Restoration? Getting Involved!

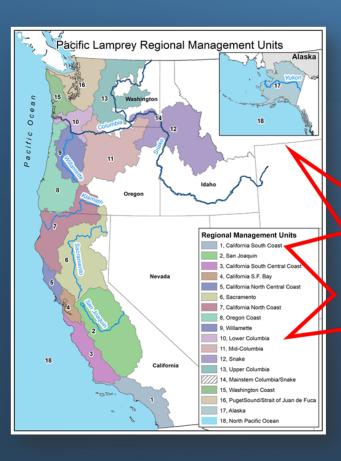
Partnerships RMUs/Projects Funding Lamprey Technical Workgroup

Outreach

**Technical Guidance and Resources** 







#### PLCI Coordinator (0.5 FTE)

- Committee Coordination
- Coordinate NFHP, BPA, FWS and other entity's funding processes and contracting
- Work with project leads on project information needs, contracting and reporting
- Match projects with funding
- Reporting for NFHP and BPA projects (others as needed)
- Annual accomplishment report info gathering and creation
- Develop outreach activities and materials
- Website development and maintenance
- Fundraising/grant writing
- Work collaboratively with other FHPs on proposals and projects

#### Policy Committee

- Strategic Planning long term
- Funding
- Outreach

#### **Conservation Team**

- Strategic planning
- Development of annual priorities and budget
- Review RIPs
- Project selection
- Annual accomplishment report
- · Funding development
- Outreach

#### Lamprey Technical Workgroup

- · Technical guidance
  - Best management practices and other documents
- Outreach
- Annual Information Exchange

#### Steering Committee ~6 Members

Pre-work for CT responsibilities

Regional Management

**Unit Groups** 

Assessment

Outreach

Project proposals

Implementation

RIPs

- RIP and Project Proposal Guidance
- · Pre-review and pre-selection of projects
- Review of annual reports and other programmatic documents for BPA and
- Oversee and guide outreach development
- Oversee and guide operational budget planning
- Oversee and guide funding development and priorities
- Review of quick turnaround documents and decisions for CT

#### Conservation Team Co Chairs

- Coordinate activities of C
- Set and implement annual calendar
- Schedule CT meetings
- · Facilitate CT meetings
- Solicit RIPs and communicate funding decisions
- Oversee and guide Steering Committee's cooperation with CT
- Work with PLCI committee chairs and coordinator
- Schedule and facilitate annual Policy meeting

# PLCI Funding

#### 1. BPA Columbia River Basin Projects

- \$300K Project Funds
- Columbia Basin Regional Management Units
- Passage improvement, habitat restoration, assessments leading to on the ground projects, research that informs management
- RFP September/October

### 2. National Fish Habitat Partnership

- \$275K Project Funds
- All Regional Management Units (AK CA)
- Habitat restoration and assessments, stakeholder outreach and monitoring
- RFP December/January

	Project Name	Project Type	Project Lead	Lead & Partners		RMU		
(	Lower South Fork McKenzie River Floodplain Enhancement	Restoration	USFS, McKenzie Waters USACE, ODFW, NMFS, U Water & Electric Board ( and Guides	SFWS, Eugen	e	llamette		
	Translocating Adult Lamprey Past Mainstem	Tr Pro	oject Name	Project Type	Project Lead & Partners			RMU
	Dams to Snake Basin	Responses of Larval Lamprey to Stage 0 Restoration Across Space & Time  Lower Columbia Pacture Lamprey Barrier Evaluation & Project Prioritization		Assessment	<b>USFS</b> , ODFW, McKenzie Watershed Council, Siuslaw Watershed Council, Conf. Tribes of the Siletz Indians, Conf. Tribes of the Coos, Lower Umpqua & Siuslaw Indians			Willamette & North Oregon Coast
	Improving lamprey passage at Prosser Dam			Assessment	Lower Columbia River Watershed Council		Lower Columbia	
		Beyond Salmon: Lamprey Use of Salmonid- Focused Habitat Restoration Projects		Assessment	Methow Salmon Recovery Foundation, Yakama Nation, Cascadia Conservation District, USFWS		Upper Columbia	
A	sessment of Larval Lamprey use in areas salmonid habitat restoration vs non- storation and above vs. below a Salmonid actronic Weir	Okenogan River Basin Pacific Lamprey Translocation & Monitoring		Other	<b>Colville Tribes,</b> Yakama Nation, Grant PUD, Douglas PUD, USGS		Upper Columbia	
of		Assessing & Restoring Lamprey Habitat in SW Washington		Assessment, Restoration	Cascade Forest Conservancy, USFS, LCFFEG			Lower Columbia
		Influence of Lamprey Origin (Artificial Prop vs Wild) on Performance		Research	USGS, USFWS, Chelan PUD Multi-RMU ( CRM RMUs)		Multi-RMU (All CRM RMUs)	
Pilot test of an acoustic telemetry array to monitor juvenile lamprey in the lower Columbia River		Citizen Science Approach to Assess Lamprey Distribution & Raise Awareness of the Cultural & Ecological Importance of Lampreys		Assessment, Outreach & Education	ODFW, Student Watershed Research Project @ PSU, CRITFC			Willamette
0	ogan River Basin <b>Pacific Lamprey</b>	Snake Basin Larval Lamprey Collaboratory		Assessment	<b>Nez-Perce</b> , CRITFC, Conf. Tribes of Umatilla, IDFG, Idaho Power, ODFW, USFWS, USFS, Yakama Nation		Snake	
Translocation and Monitoring		Nez-Perce Lamprey Legacy Internship		Assessment	Nez Perce			Snake
	raluation of <b>Historic Presence of Pacific</b> I <b>mprey</b> in the Okanogan River Basin	Assessment	Assessment USGS, Colville Tribe			Upper Columbia		
Na	atal Origins of Pacific Lamprey	Assessment USFWS, Oregon State Univ Research (Maryland), NOAA, CRITFC				Multi-RMU		
Ev	aluation of Larval Lamprey Survival	Assessment	nent USGS, USFWS			Multi-RMU		

Following Salvage: A Pilot Study

Research

# Lamprey Technical Workgroup



#### Restoration

Adult Passage and Engineering

Juvenile Entrainment, Dewatering and Dredging Investigations (JEDDI)

Barriers to Tidal Connectivity

Outreach

Genetics and eDNA

Ocean

Contaminants

Subgroup of Other Lamprey - Anadromous and Resident (SOLAR)

**Tagging** 

Partnership for the Aquaculture of Lampreys (PALs)

**Abundance Based Goals** 

#### Lamprey Regional Plans and General Information:

- Pacific Lamprey Conservation Initiative
- 2022 Pacific Lamprey Assessment
- <u>Pacific Lamprey Regional Implementation Plans</u> (18 different Regional Management Units)
- Lamprey Distribution Maps: Databasin.org (online, interactive GIS map search "lamprey") \*\*Changing to ArcGIS
   Online
- Coastal, Columbia, and Snake Conservation Plan for Lampreys in Oregon - ODFW
- Tribal Plan Pacific Lamprey Restoration Plan for the Columbia River —Columbia River Inter-Tribal Fish Commission (2011)
- <u>USACE Pacific Lamprey Improvements Implementation</u> Plan



### Lamprey Toolbox



## Lamprey Toolbox

#### Available Resources –

#### **Lamprey Summary Documents**

- Best Management Guidelines for Native Lampreys during In-Water Work (Lamprey Technical Workgroup 2022) Covers a broad spectrum of actions including biology, salvage during dewatering actions, habitat restoration, screening, and passage and includes case studies.
- Comparison of Pacific Lamprey and Pacific Salmon
   Life Histories, Habitat and Ecology (Lamprey Technical Workgroup 2023)
- Monitoring and Minimizing Effects of Dredging on
   Lampreys (Lamprey Technical Workgroup 2021)
   Summarizes knowns and uncertainties regarding the effects of Human-Caused Substrate Disturbances (HSCD) on larval and juvenile lampreys, and provides best management guidelines.
- Pacific Lamprey Habitat Restoration Guide (Crandall and Wittenbach 2015). Description of the biology, ecology, and cultural significance of lamprey, threats and best management practices to protect and restore populations.

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#### Lamprey Passage Guidance

- Practical Guidelines for Incorporating Adult Pacific

  Lamprey Passage at Fishways (Lamprey Technical

  Workgroup, Version 2.0 2022). Guidance on providing

  upstream passage within existing fishways and in new fishway

  designs, discussion of lamprey passage structures.
- <u>Design Guidelines for Pacific Lamprey Passage Structures</u> (Zobott et al. 2015). Guidance for designing and installing lamprey ramps for upstream passage.
- Barriers to Adult Pacific Lamprey at Road Crossings:
   Guidelines for Evaluating and Providing Passage (Lamprey Technical Workgroup 2020) includes culvert passage assessments and recommendations for lamprey passage, and includes case studies.
- Barriers to Tidal Connectivity for Native Lamprey Species (PLCI, PMEP, CFPF 2021)
- CA Fish Passage Forum (cafishpassageforum.org):
  - <u>Lamprey Passage Recommendations</u>
  - Culvert passage assessment



# Lamprey Toolbox

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#### Lamprey Summary Documents

- Native Lampreys of Oregon (ODFW) Brochure describing native lampreys in Oregon.
- Overview of eDNA and Applications for Research and Monitoring of Lampreys (Lamprey Technical Workgroup 2021) Provides a reference for fisheries managers, biologists, and other stakeholders interested in learning more about environmental DNA (eDNA) and applying this technique to lamprey research and monitoring projects.
- Lamprey Identification Guide (Ralph Lampman Yakama Nation Fisheries) ID guide for Adult and Juvenile Pacific Lamprey, Western River Lamprey, Western Brook Lamprey and Pacific Brook Lamprey in the Columbia River Basin.
- Conservation challenges and research needs for Pacific
   Lamprey in the Columbia River Basin (Clemens et al. 2017).
   Broad overview paper.
- Climate Change Vulnerability Assessment for Pacific Lamprey in Rivers of the Western U.S. (Wang et al. 2020).



# Lamprey Toolbox



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### Available Resources –

#### Fish Screens

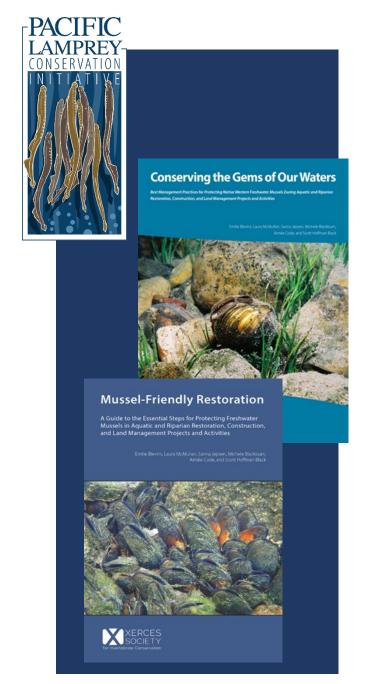
- Review of Factors Affecting Larval and Juvenile

  Lamprey Entrainment and Impingement at Fish Screen

  Facilities (Lamprey Technical Workgroup 2022).
- Fish Screen Oversight Committee (FSOC) provides technical information necessary to facilitate effective planning and implementation of fish screening projects.
- Fish Passage Solutions on the West Coast: Culverts,

  Tidegates, and Fish Screens (NOAA Fisheries website)
- Anadromous Salmonid Passage Facility Design (NMFS 2011) includes screening criteria for salmonids
- Effectiveness of common fish screen materials for protecting lamprey ammocoetes Influence of sweeping velocities and decreasing flows. (Mesa et al. 2017).
- Effectiveness of fish screens in protecting lamprey ammocoetes Pilot testing of variable screen angle (Liedtke et al. 2019a).

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Native Freshwater Mussel Resources

Conserving the Gems of Our Waters: Best Management
Practices for Protecting Native Western Freshwater Mussels
and its shorter, companion user's guide Mussel-Friendly
Restoration include information on determining if native
mussels are present at your site, identification, project
development and review, and salvage and relocation.

- Mussel Identification (CTUIR 2016)
- Extinction risk of Western North American freshwater mussels (Blevins et al. 2017). Conservation overview paper.
- Pacific Northwest Native Freshwater Mussel Workgroup
- Western Freshwater Mussel Database (Xerces Society/Confederated Tribes of the Umatilla Indian Reservation). Geospatial data for freshwater mussel occurrence in the western U.S. Available upon request (mussels@xerces.org)

pnwmussels.org

## PLCI Website



Home

About PLCI

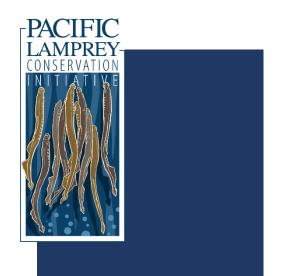
Get Involved

Intranet

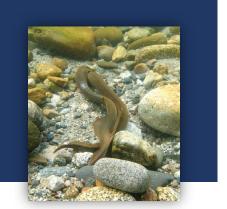
# Pacific Lamprey Conservation Initiative

A COLLABORATIVE EFFORT TO RESTORE OUR
ANCIENT FRIEND

www.pacificlamprey.org



Contact Us!



#### **Ben Clemens**

ben.clemens@oregonstate.edu
Joe Skalicky
joe\_skalicky@fws.gov
Monica Blanchard
monica.blanchard@dfw.wa.gov
Christina Wang
christina wang@fws.gov

pacificlamprey.org info@pacificlamprey.org