

WiFi “Tech Guest”

Username: fish0001

Password: RkwJ1



# Klamath Basin Fisheries Collaborative

**Research & Monitoring of Fish and Other Aquatic Organisms  
– Life History and Population Health**

# Endangered suckers nearing extirpation in Upper Klamath Lake

Jacob Krause, Supervisory Research Fish Biologist, Western Fisheries Research Center

Brian Hayes, Rachael Paul-Wilson, and Maria Dzul

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*Photo by Jason Ching*



— BUREAU OF —  
RECLAMATION



# Modeling to estimate endangered Klamath sucker abundance

Please contact Maria Dzul at [mdzul@usgs.gov](mailto:mdzul@usgs.gov) for more information

**Maria Dzul<sup>1</sup>, Jacob Krause<sup>2</sup>, Brian Hayes<sup>2</sup>, and John Caldwell<sup>2</sup>**

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<sup>2</sup> US Geological Survey, Western Fisheries Science Center, Klamath Falls, OR



# The Klamath Tribes' c'waam and koptu Assisted Rearing Methodology

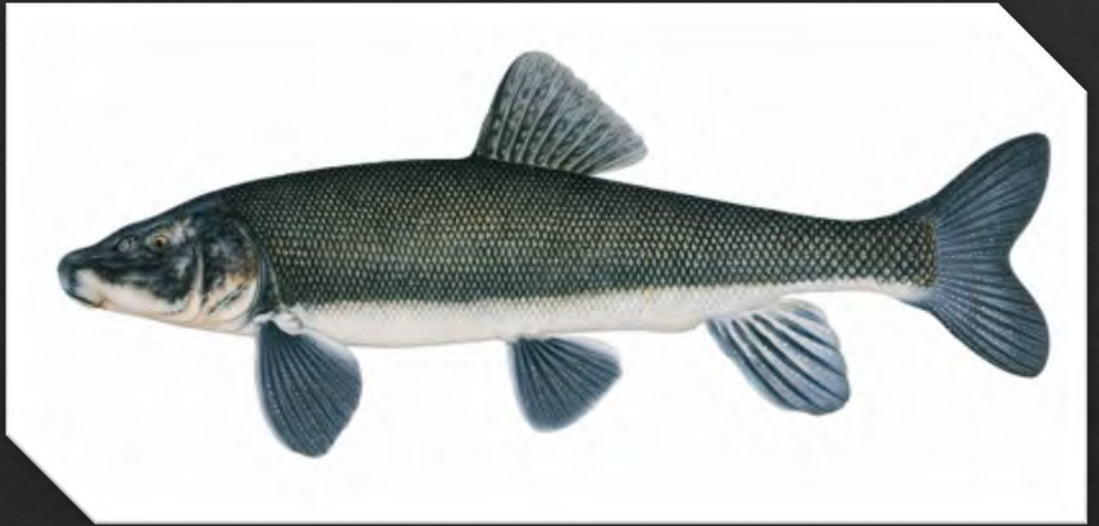
Carlie Sharpes Barrera



# c'waam and koptu – Endangered and Endemic

**c'waam** Lost River sucker  
*Deltistes luxatus*

Up to 34" (~860 mm)  
Can live past 40 years  
-- 57 years is the oldest aged fish



**koptu** Shortnose sucker  
*Chamistes brevirostris*

Up to 20" (~510 mm)  
Can live up to 24 years



Joseph Tomelleri

# Cultural Importance

- Traditional survival food at the end of winter/ early spring
- Tribal members still rely on subsistence hunting and fishing
- Interconnected relationship with natural environment
- **1986:** End of tribal harvest; Federal recognition restored
- **1988:** federal ESA listing



1905 Sucker Harvest and Drying

# Habitat Loss and Alteration

1905



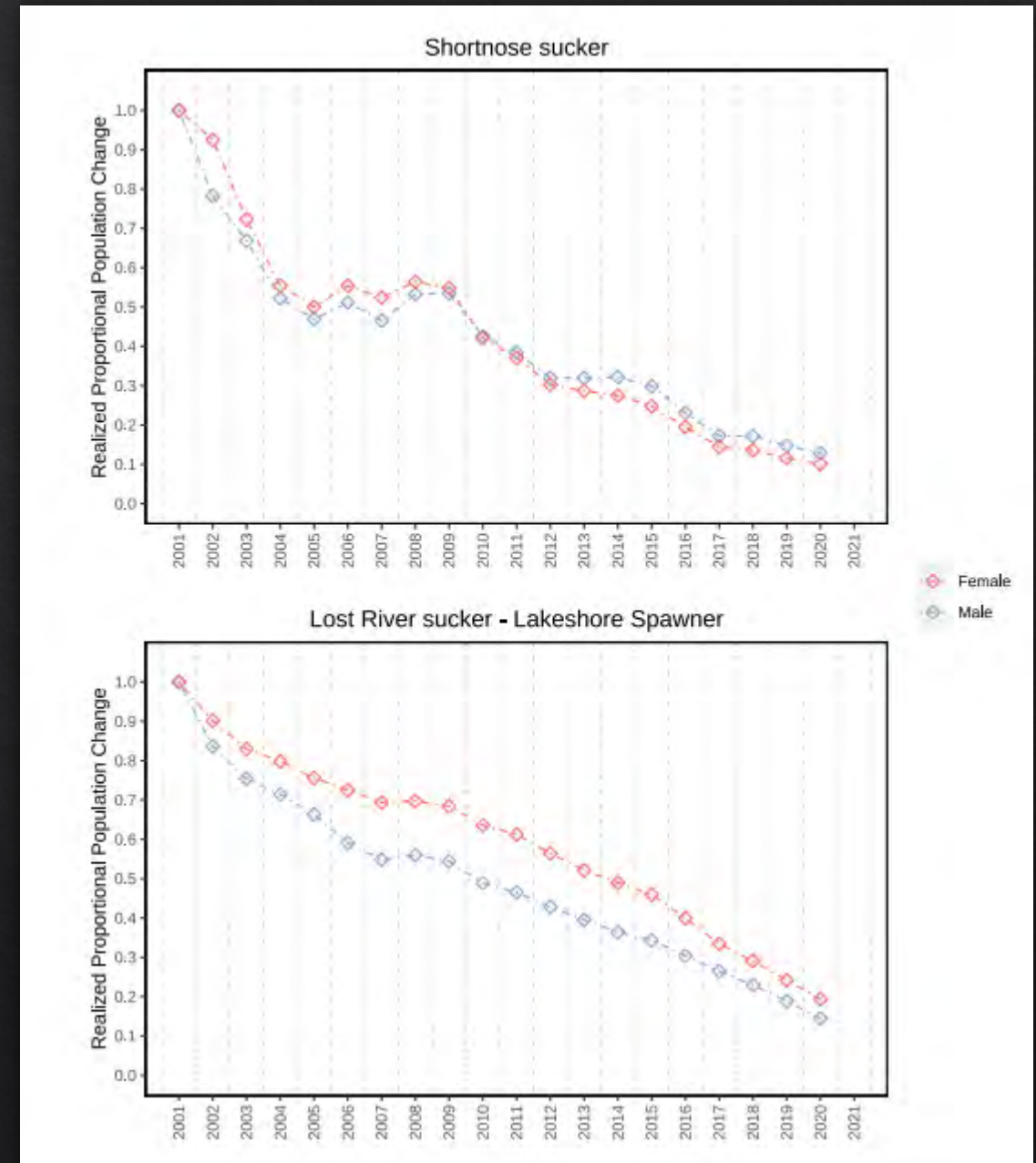
Present Day



# Steady Population Decline

- Insufficient juvenile survival and recruitment events since early 1990s
- Graph showing realized proportional change in population size from 2000-2022
- Several factors may contribute:
  - Habitat alteration, ecosystem change
  - Nutrient loading → hypereutrophic conditions
  - Predation
  - Disease and parasites
- Assisted rearing is necessary, began circa 2016-2018

(Krause, Paul-Wilson, & Harris, 2023)



# Rearing Goals

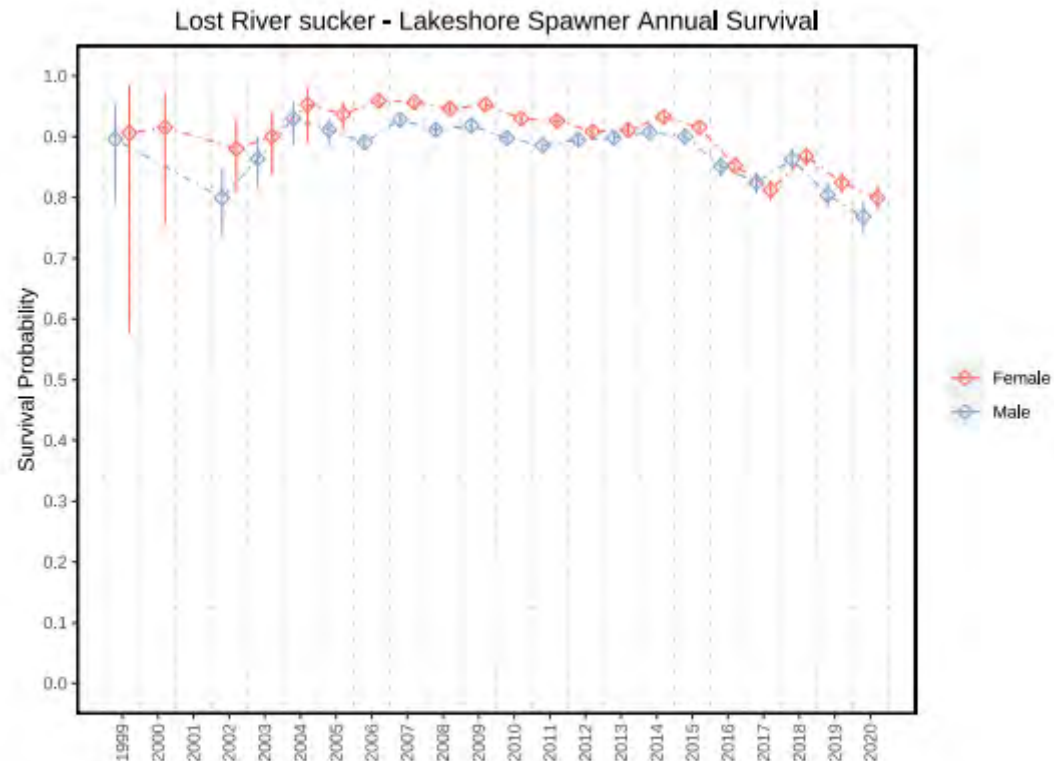


Figure 15: Annual survival estimates (with 95% confidence intervals) for male (blue) and female lakeshore spawning Lost River suckers (red).

- ~0.99 surface acres of pond space
- Release juveniles past survival bottleneck
- Size goal of ~ 300 mm in TL prior to release
- Estimated 4 years of rearing
- Coordinate with organizations to hold suckers in more safe locations



(Krause, Paul-Wilson, & Harris, 2023)

# Nutrient Challenges

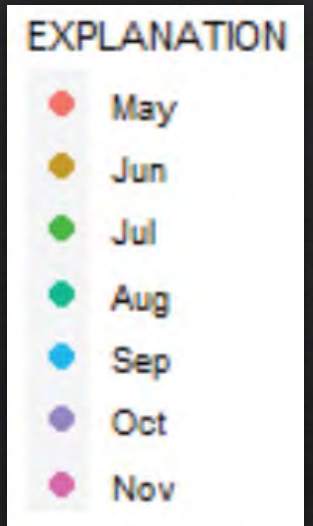
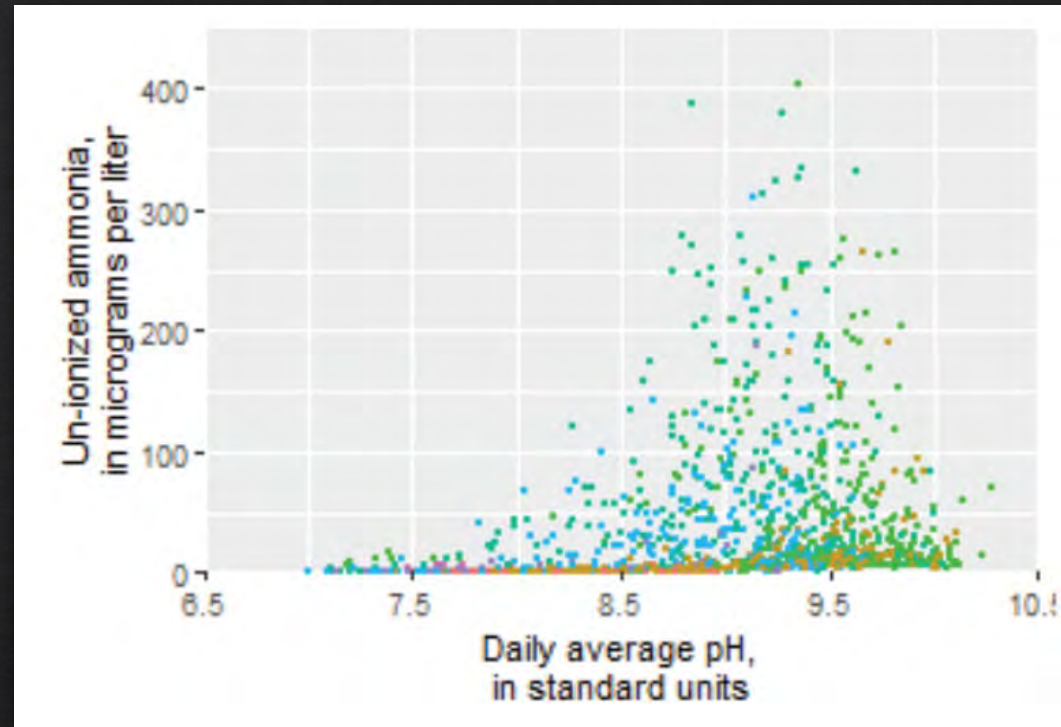
Site	TN ( $\mu\text{g/L}$ )	TP ( $\mu\text{g/L}$ )	N: P
TKT Well 1	1470	233	6:1
Mid UKL	1844	214	9:1

- High N:P ratios ( $>20:1$ ) suppress harmful algae spp.
- Excess primary productivity increases pH and  $\text{NH}_3$
- Mitigation in 2025:
  - Lanthanum clay based P binder
  - Biodegradable peroxide based algaecide
  - Peat moss as a pH buffer



# Upper Klamath Lake (UKL) Conditions

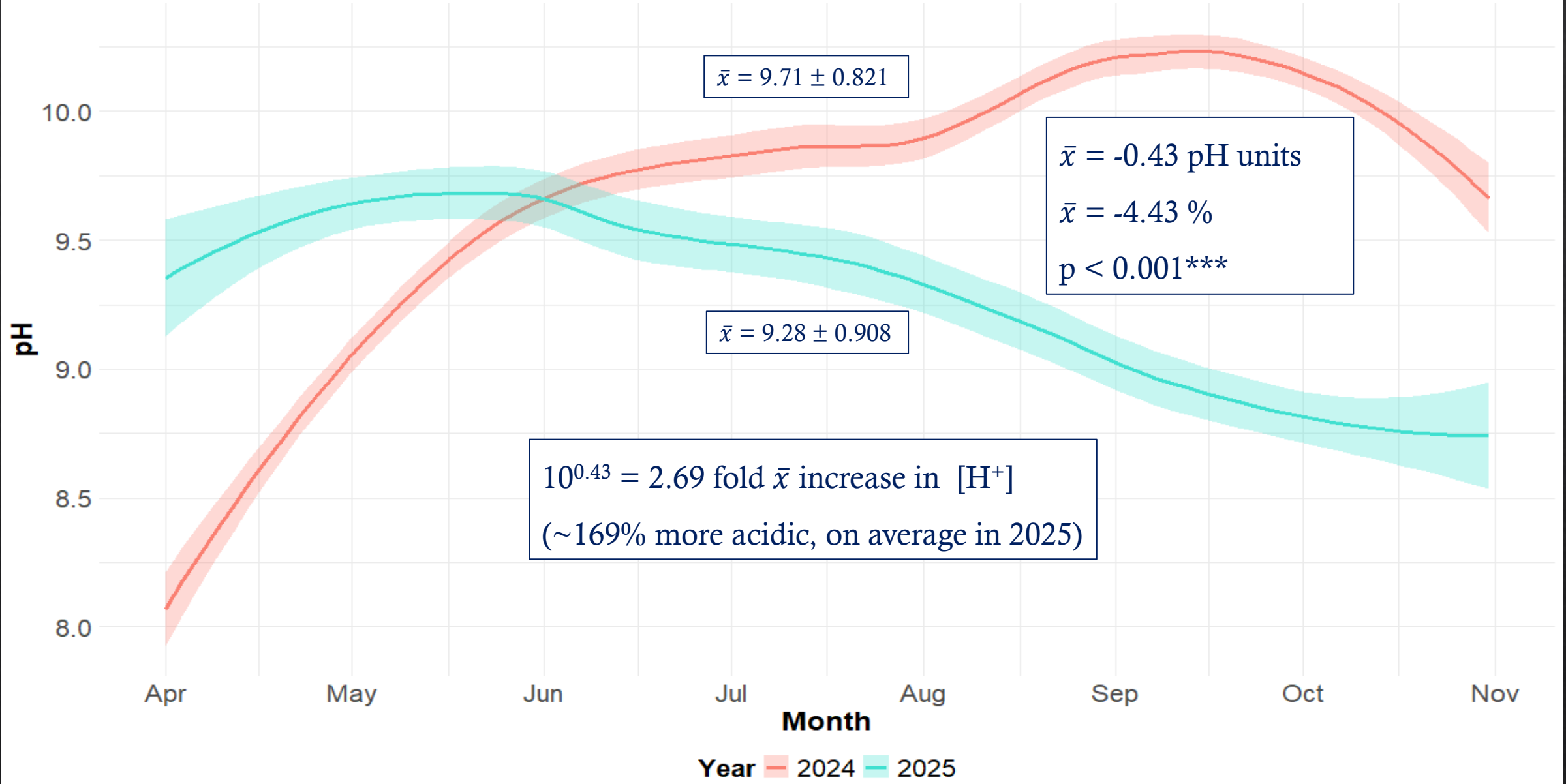
- High pH can have several adverse physiological effects on fish
- Optimum pH: < 9.0 standard units
- High pH can increase NH<sub>3</sub> toxicity



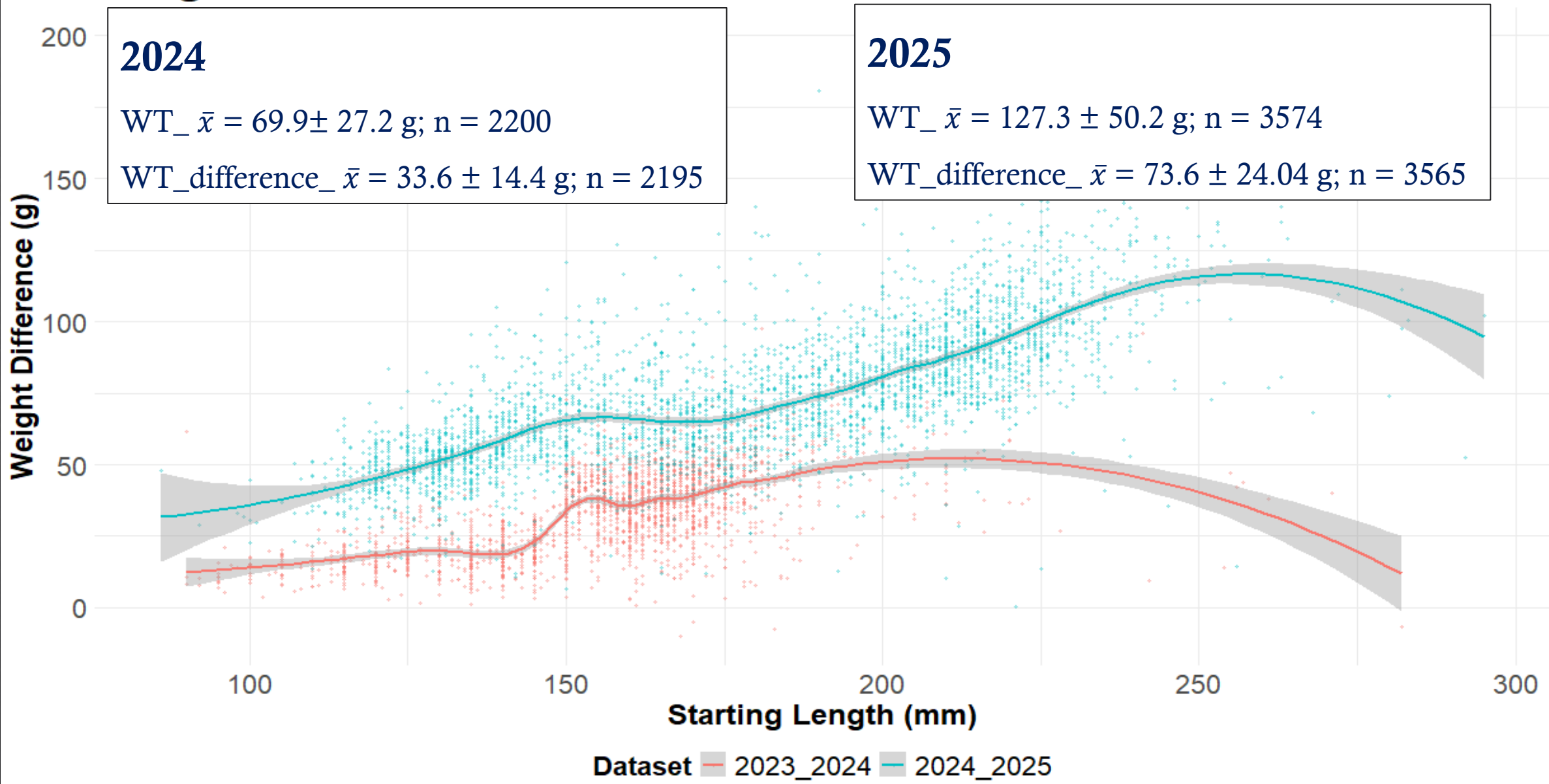
Water-quality variable	Units	24-hour lethal concentration for 50 percent of population	99th or 1st percentile value of daily averages or weekly estimates during 2005–19
Water temperature	Degrees Celsius	>30.76–31.93	24.38
pH	Standard units	>10.38–10.96	10.04
Dissolved oxygen	Milligrams per liter	<1.14–2.01	1.76
Un-ionized ammonia	Micrograms per liter	>510–1,290	264

(Wherry, 2022)

# Seasonal Fluctuations of pH in Ponds



# Weight Difference vs. Size



# Mass-Standardized Growth Rate (MSGR)

- Scales growth relative to body mass
- Allows fair comparison of individuals across sizes

$M_1$  = initial mass of the fish (grams)

$M_2$  = final mass of the fish

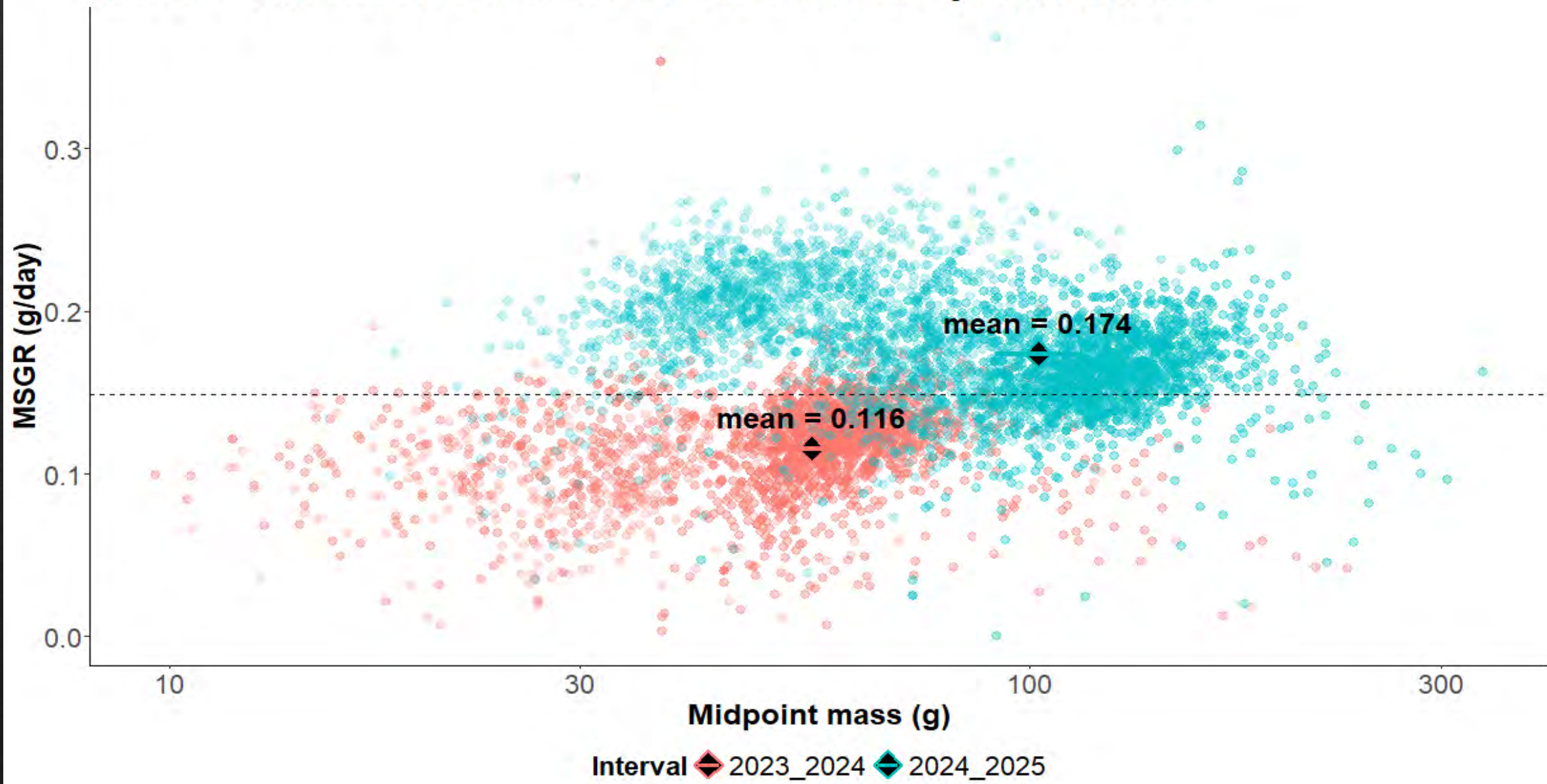
$t$  = time interval between measurements

$b$  = scaling exponent = 0.743

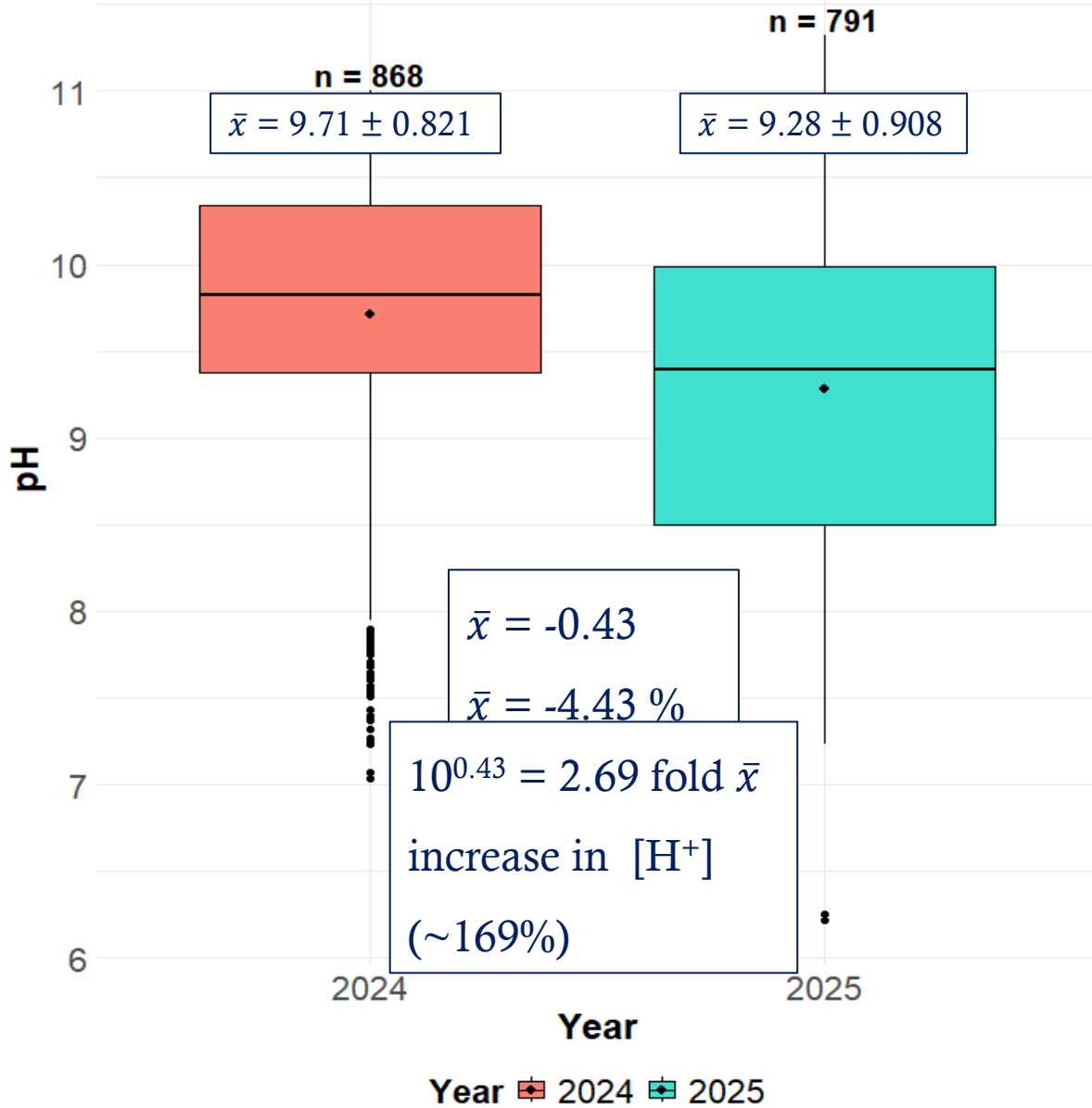
$$MSGR = \frac{(M_2^b - M_1^b)}{t}$$

```
lm(formula = log(g) ~ log(M_mid) + interval, data = growth_intervals)
```

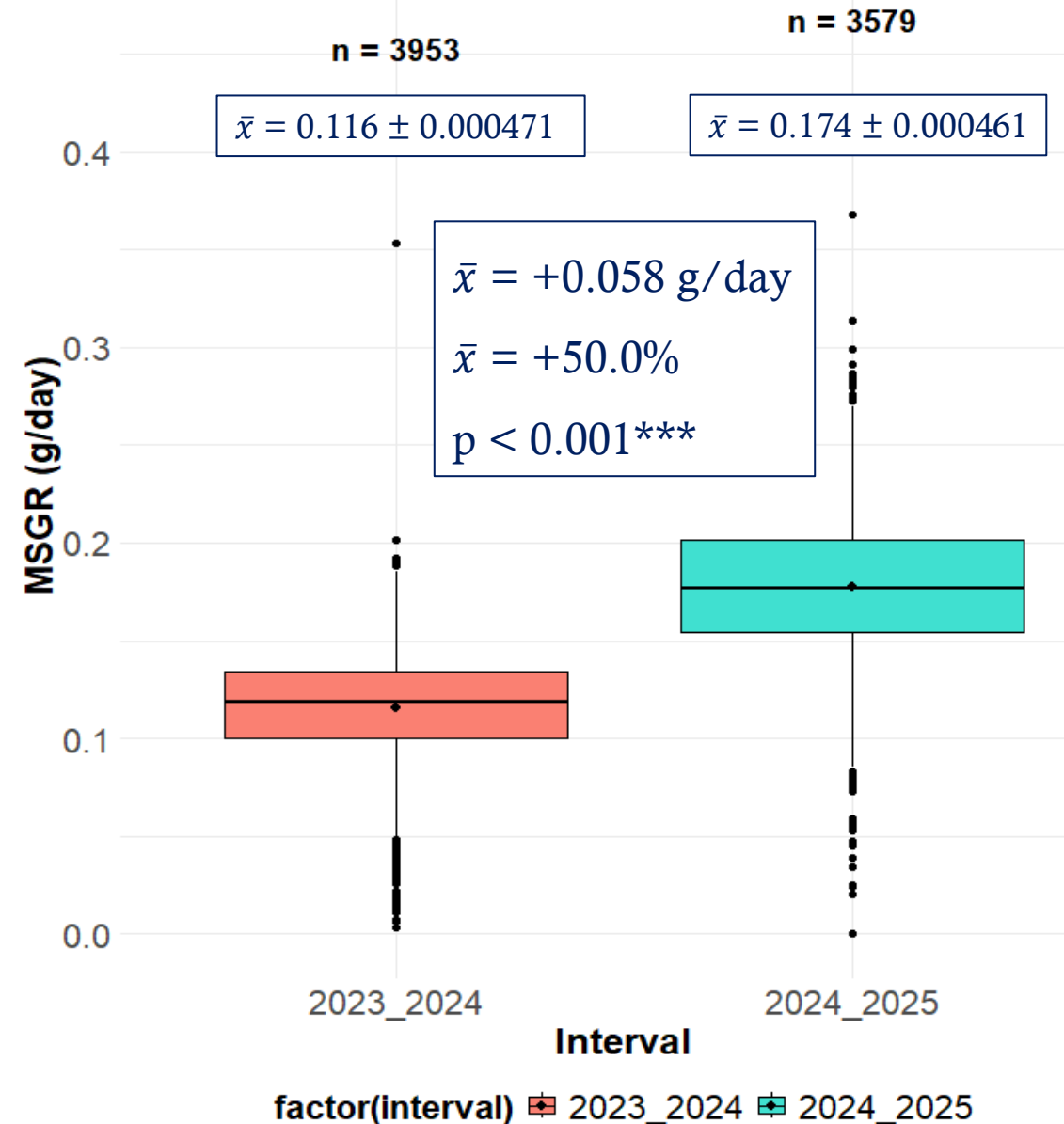
# Mass-Standardized Growth Rate vs. Midpoint Mass



# pH Distribution by Growing Season



# MSGR Distribution by Interval



# Conclusion

- Ability to mitigate adverse water quality conditions
- Evidence for accelerated growth rate correlation with improved water quality
  - Cannot infer causation
- Improves hatchery methodology
  - Release beyond early life-stage bottleneck

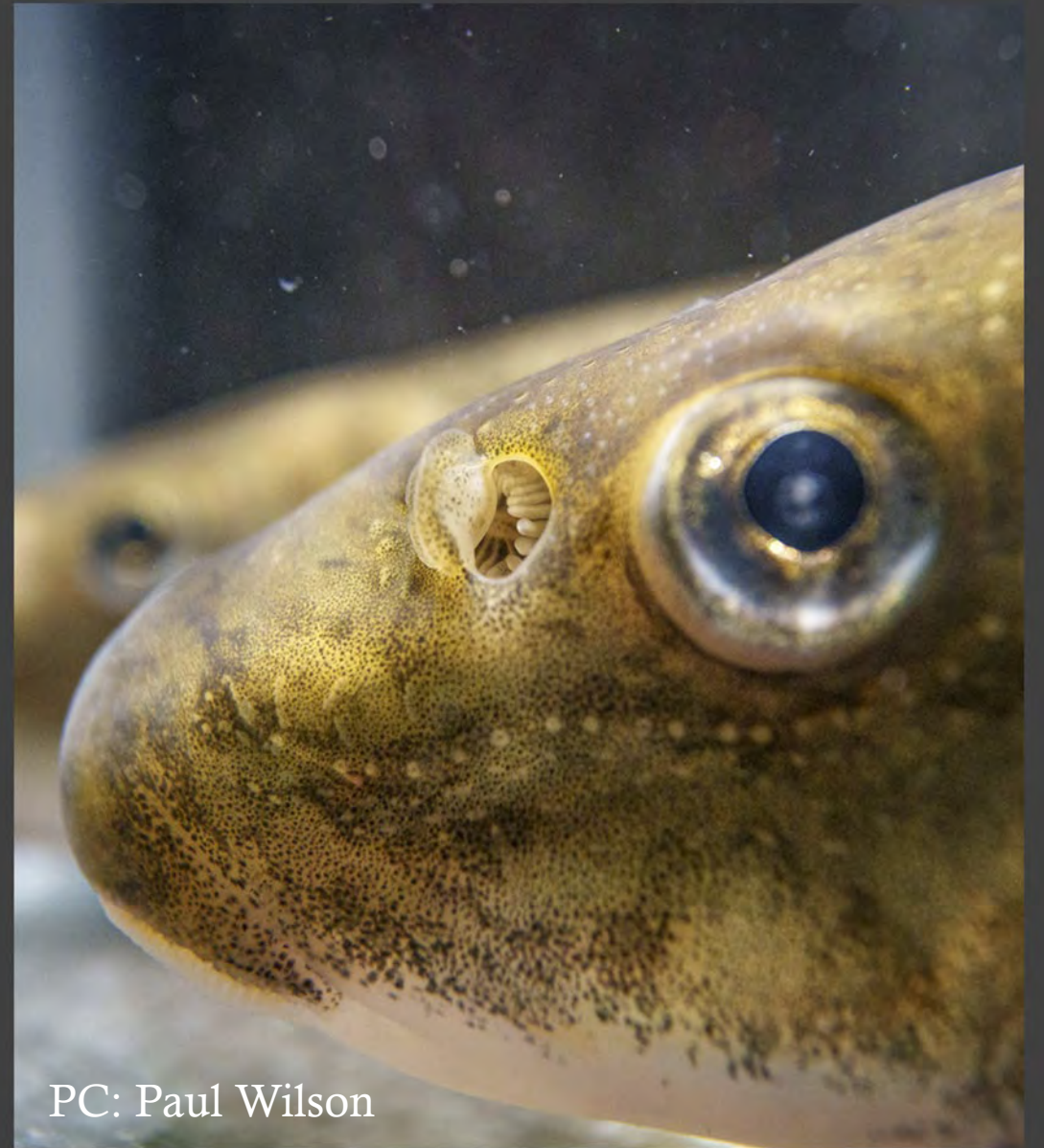


# Thank you! Questions?

Carlie Sharpes Barrera

Email: [carlie.sharpes@klamathtribes.com](mailto:carlie.sharpes@klamathtribes.com)

Direct Line: (541) 827-5242



PC: Paul Wilson



# Suckers Discussion

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Data methodologies,  
standardization, and needs





# Klamath Basin Fisheries Collaborative

**Thermal Refugia – Temperature and Fish Behavior**

# Defining salmonid-relevant water quality thresholds in Upper Klamath Lake

Jonny Armstrong, Hannah Barrett, Melanie Davis (COOP) — OSU

Jordan Ortega — Klamath Tribes Ambodat Department

Bill Tinniswood, Mark Hereford, Ben Ramirez — ODFW

Jacob Krause, Summer Burdick, and others — USGS





Summer water quality threatens fish



**RECREATIONAL USE HEALTH ADVISORY**

**Upper Klamath Lake in  
Klamath County**

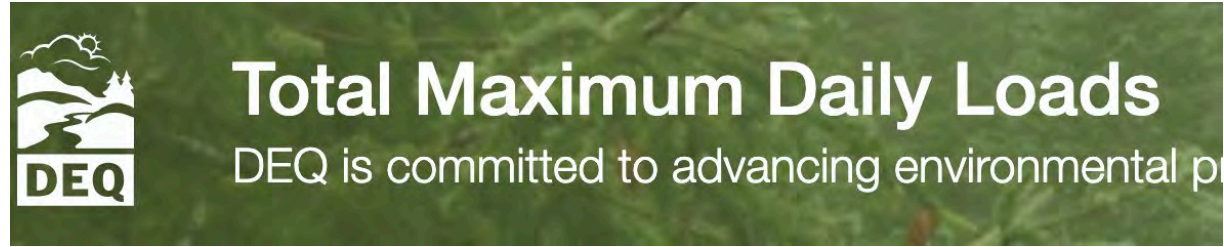
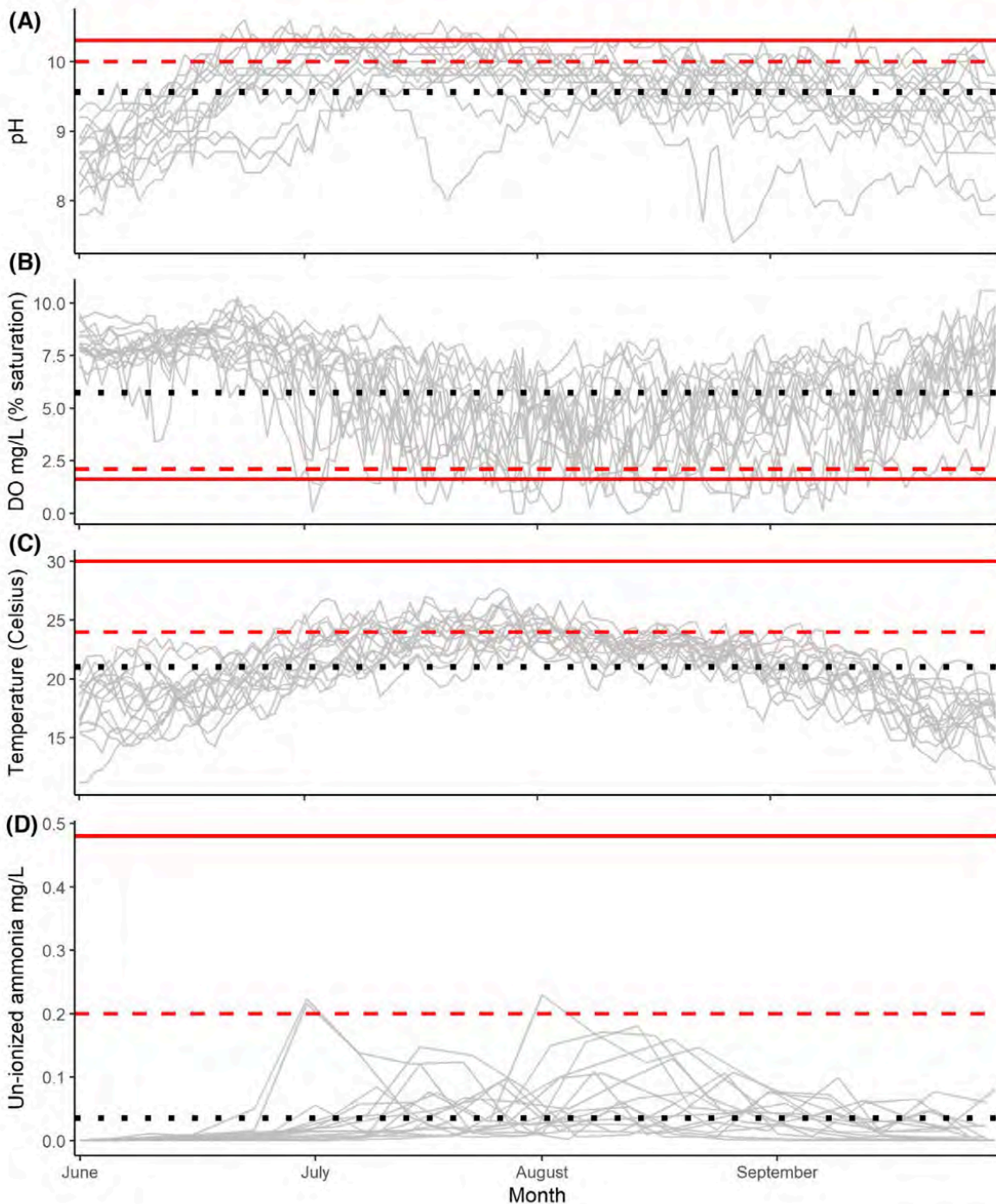
# Restoring water quality in Upper Klamath Lake



Charles Erdman TU



Brian Marker, Ducks Unlimited






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 Published 2023. This article is a U.S. Government work and is in the public domain in the USA.  
 ISSN: 0275-5947 print / 1548-8675 online  
 DOI: 10.1002/nafm.10850

**FEATURE ARTICLE**

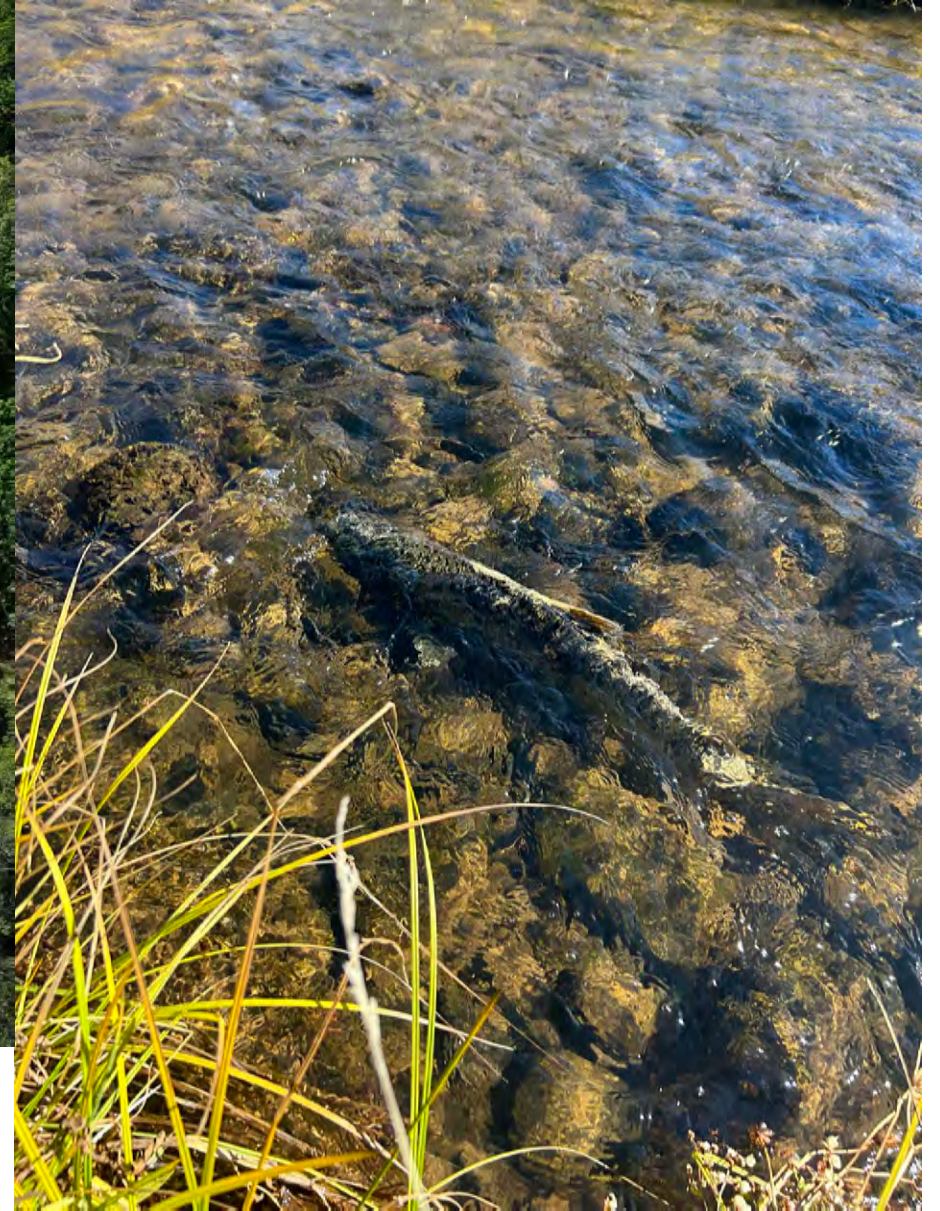
## Water and Endangered Fish in the Klamath River Basin: Do Upper Klamath Lake Surface Elevation and Water Quality Affect Adult Lost River and Shortnose Sucker Survival?

**Jacob R. Krause\***  and **Eric C. Janney**   
*U.S. Geological Survey, Western Fisheries Research Center, Klamath Falls Field Station, 2795 Anderson Avenue, Suite 106, Klamath Falls, Oregon 97603, USA*

**Summer M. Burdick**   
*U.S. Geological Survey, Western Fisheries Research Center, Columbia River Research Laboratory, 5501A Cook-Underwood Road, Cook, Washington 98605, USA*

**Alta C. Harris**  and **Brian S. Hayes**   
*U.S. Geological Survey, Western Fisheries Research Center, Klamath Falls Field Station, 2795 Anderson Avenue, Suite 106, Klamath Falls, Oregon 97603, USA*

What are water quality thresholds for salmonids?



**SUCKERS**

**SALMONIDS**

# Why can't we predict these thresholds from lab studies?

- Physiological studies have variable results
- Not clear what physiological benchmarks predict habitat use
- Lack of study on multiple stressors

**There is no substitute for empirical data**

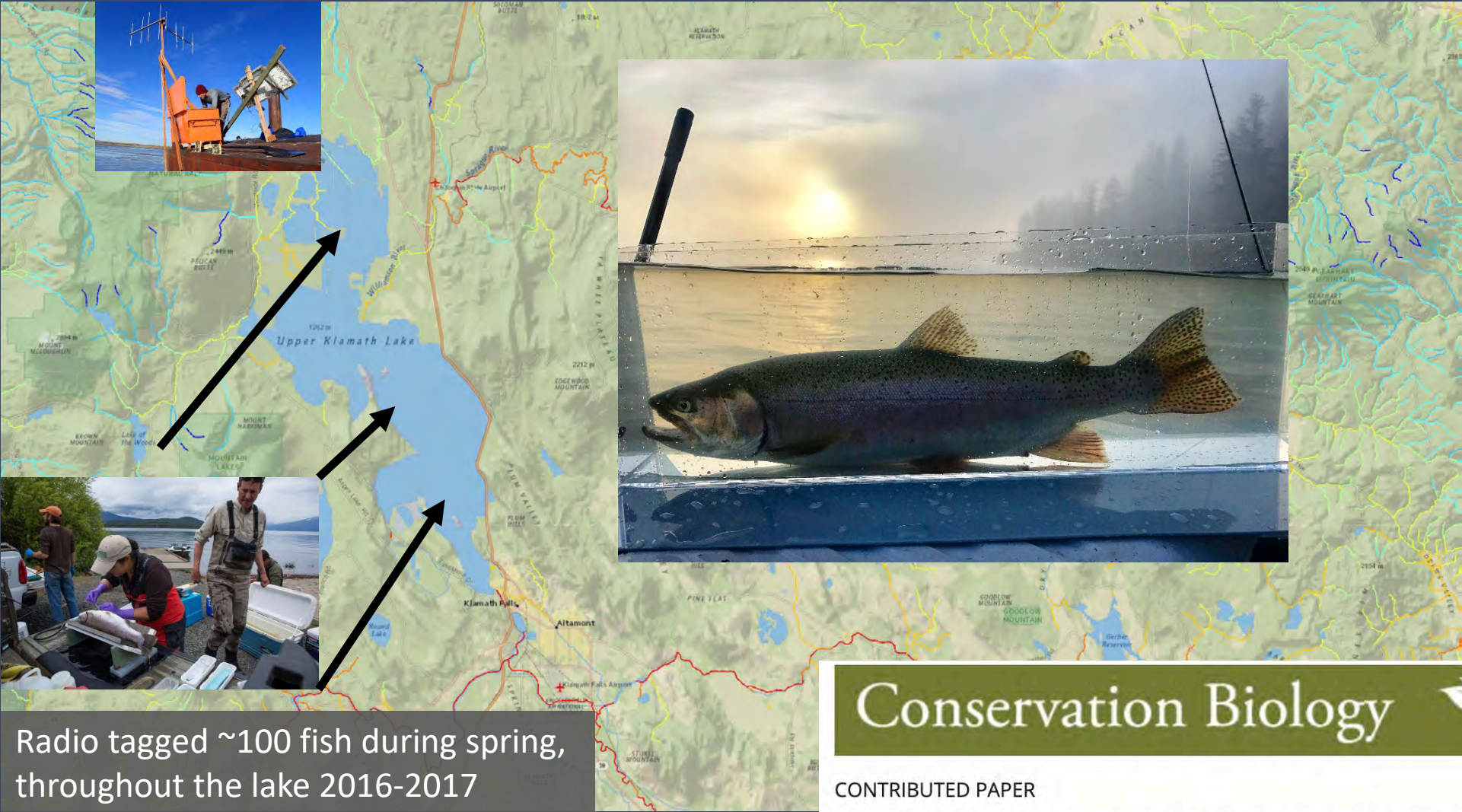
# Redband trout

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- Evolutionary history in region (tens of thousands of years)
- Life-cycle mimics that of salmon
- What can they tell us about patterns of habitat use?



# Radio telemetry work



Radio tagged ~100 fish during spring, throughout the lake 2016-2017

## Conservation Biology

CONTRIBUTED PAPER

### Contribution of warm habitat to cold-water fisheries

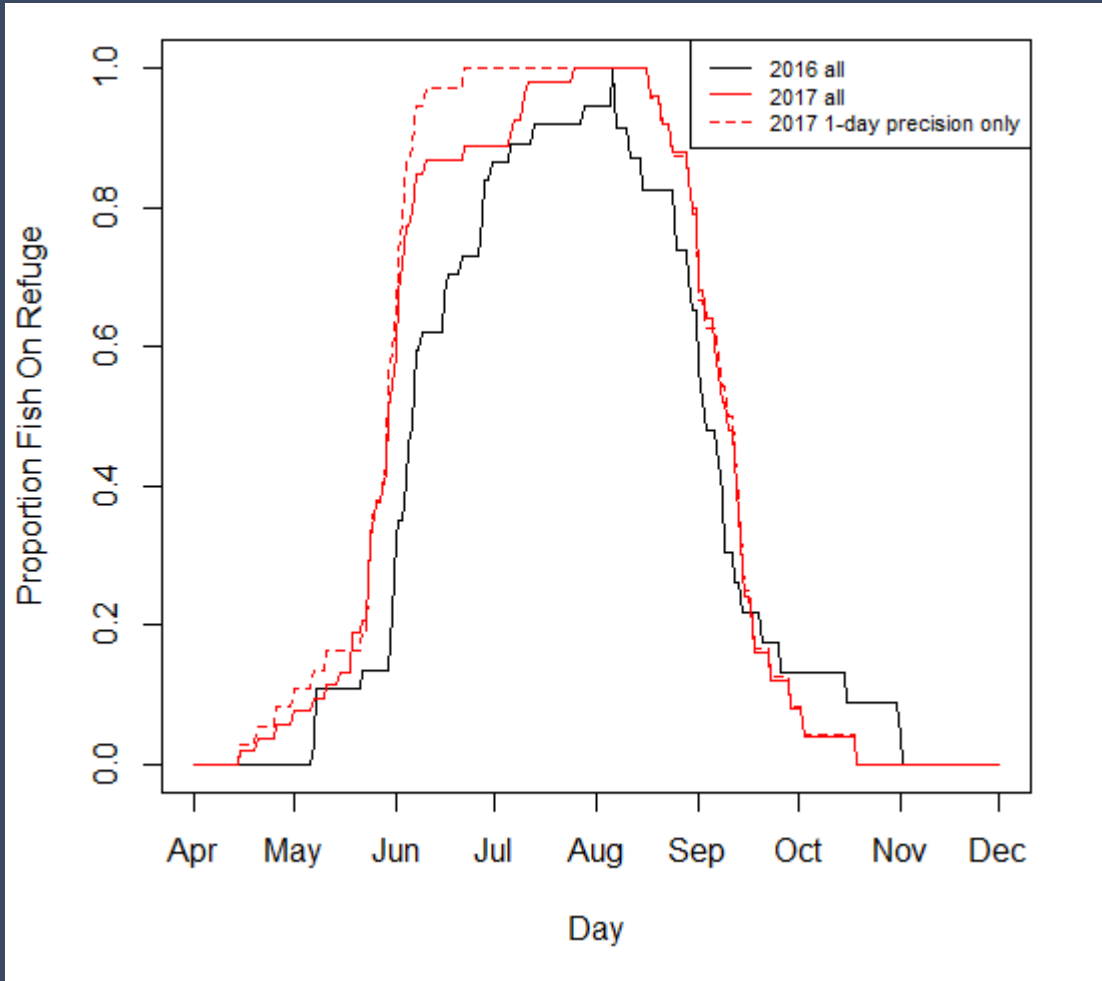
Nick Hahlbeck ✉, William R. Tinniswood, Matthew R. Sloat, Jordan D. Ortega, Matthew A. Wyatt, Mark E. Hereford, Ben S. Ramirez, David A. Crook, Kara J. Anlauf-Dunn, Jonathan B. Armstrong

# Complete migration to lake tributaries during summer

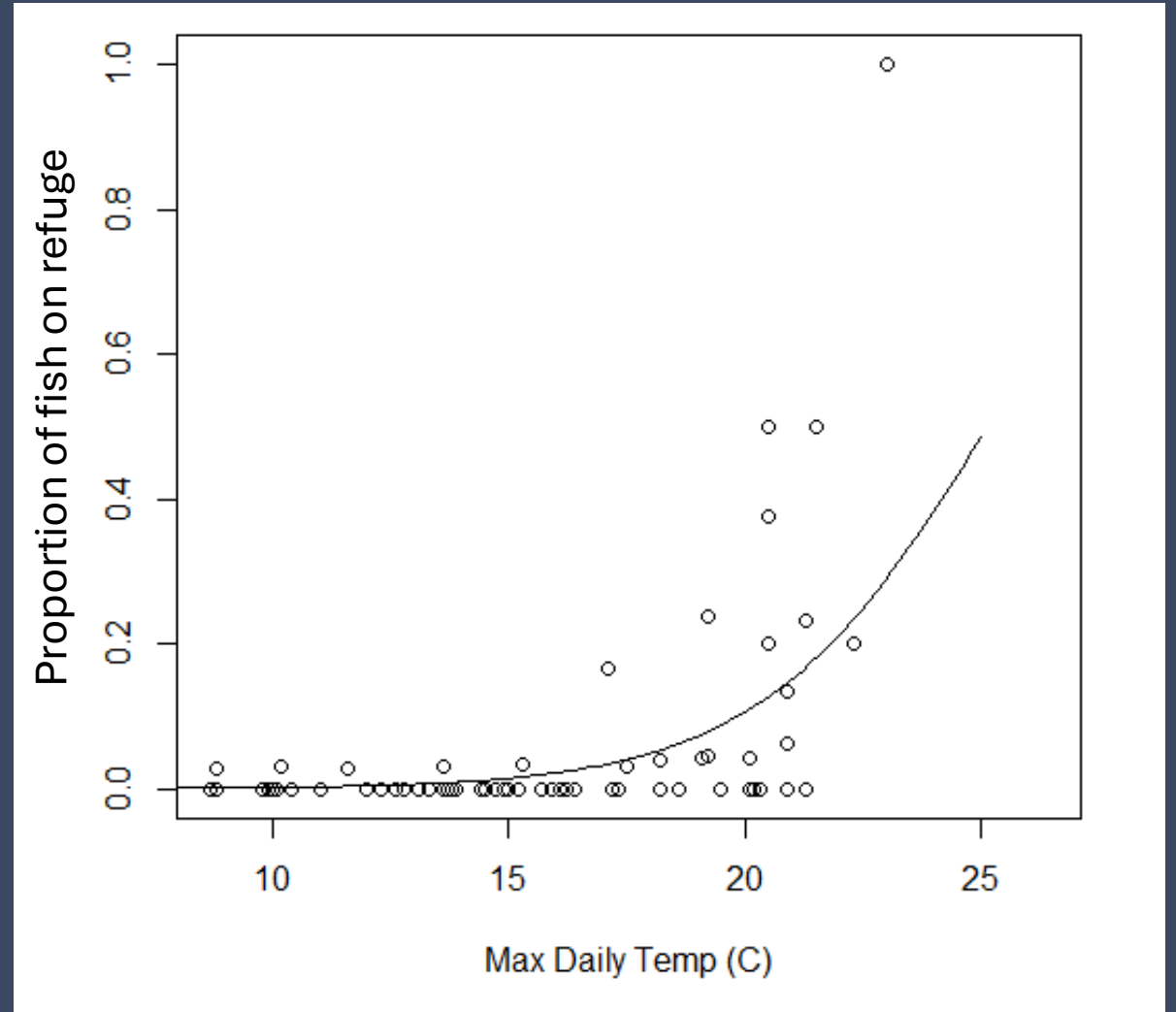


Movements up to ~40 km

## 1. Quantify timing of refuge use



## 2. Relate to water quality variables

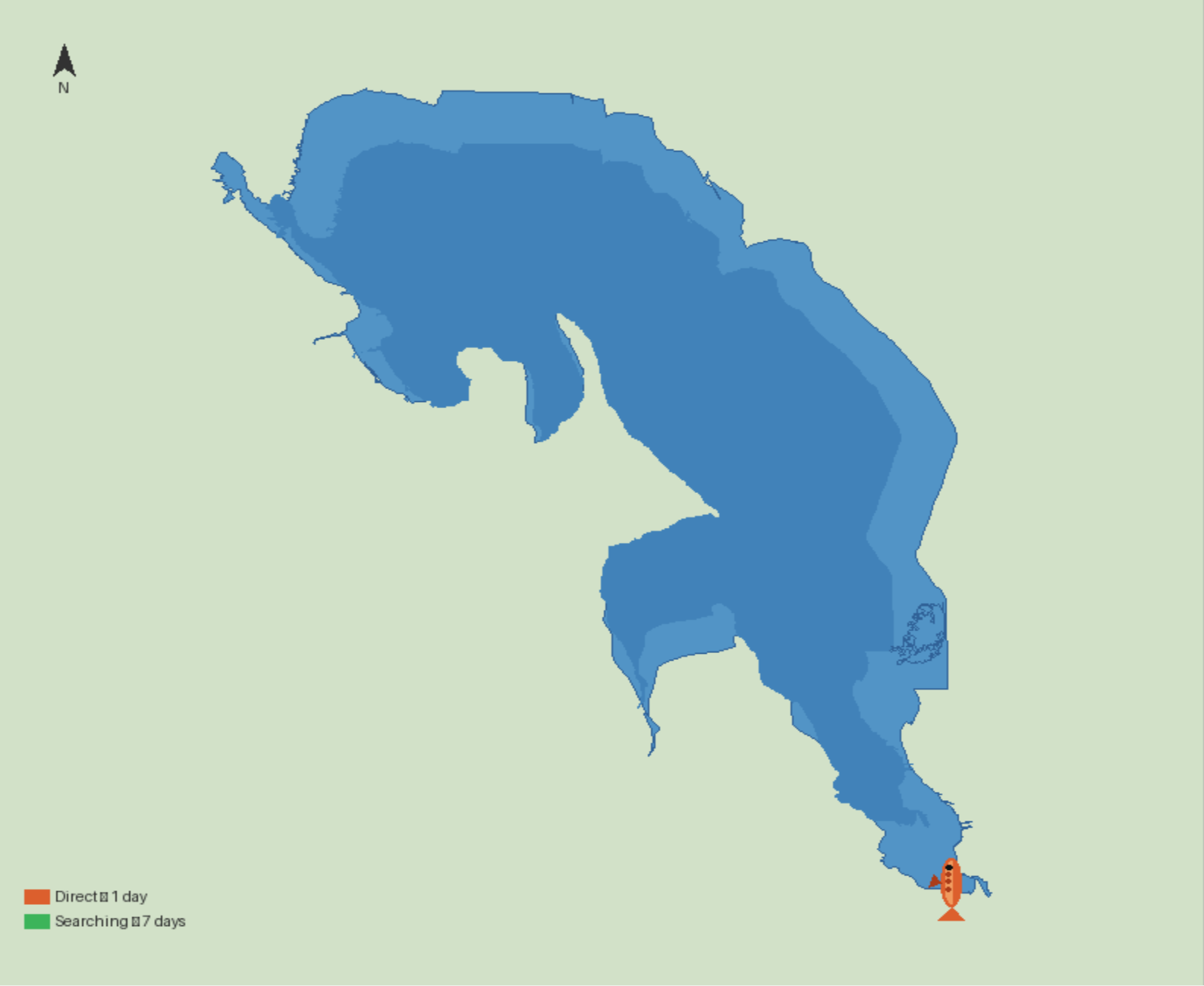


**Problem:** We know the conditions when fish arrived at refuges but not necessarily those that triggered migration

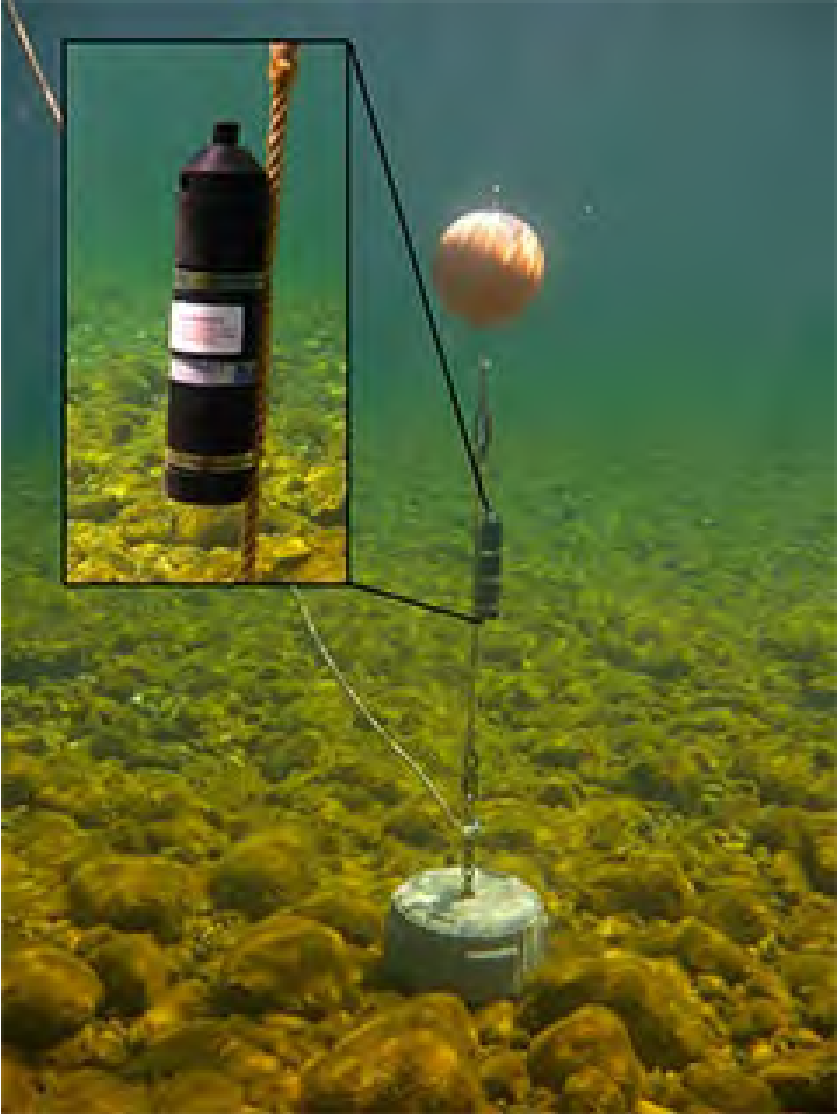
# Migration behavior and inference into water quality thresholds



# Migration behavior and inference into water quality thresholds



# Solution: Monitor the process of migration using USGS Acoustic Receiver Array



50 V9 tags deployed from March-31 to April-5 2026





## Tags

- ID + Temperature
- Ping every 15 min
- << 2% burden



Wood River

Williamson River



Pelican Bay

East-side  
springs



42.40°N

Odessa

42.35°N

42.30°N

42.25°N

Fish capture locations

122.05°W 122.00°W 121.95°W 121.90°W 121.85°W



Known refuge sites

### We are thrilled to learn about:

- Movement behavior while using lake as foraging habitat in spring
- Behavioral shifts at onset of emigration
- Duration of movement to refuge (i.e. arrival and departure dates)
- Search behavior and movement path
- Movement back to lake in fall

# Next steps

- Collect and analyze acoustic telemetry
- Analyze PIT tag data
- Develop statistical model integrating telemetry datasets and information on migration duration
- Estimate water quality thresholds for use of lake

# Thanks!

- Partners: Klamath ODFW, Klamath Tribes, USGS Klamath Falls Field Station
- Funding: OWEB, NW CASC
- Volunteer Anglers, Landowners
- All of the scientists and conservation practitioners in the basin who have supported past and present redband trout studies





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# Break

**Back at 3:25**



# Klamath Basin Fisheries Collaborative

**Dam Passage and Removal**  
**– Fish Monitoring Post-Dam Removal**

# Using Radio Telemetry to Monitor Spawning Migration and Dam Passage Success in Fall-Run Chinook Salmon in the Klamath Basin, Post-Dam Removal

Oregon Department of Fish and Wildlife

Carolyn Malecha – ODFW, [carolyn.j.malecha@odfw.oregon.gov](mailto:carolyn.j.malecha@odfw.oregon.gov)

Mark Hereford, OR Dept. of Fish and Wildlife, [mark.e.hereford@odfw.oregon.gov](mailto:mark.e.hereford@odfw.oregon.gov)

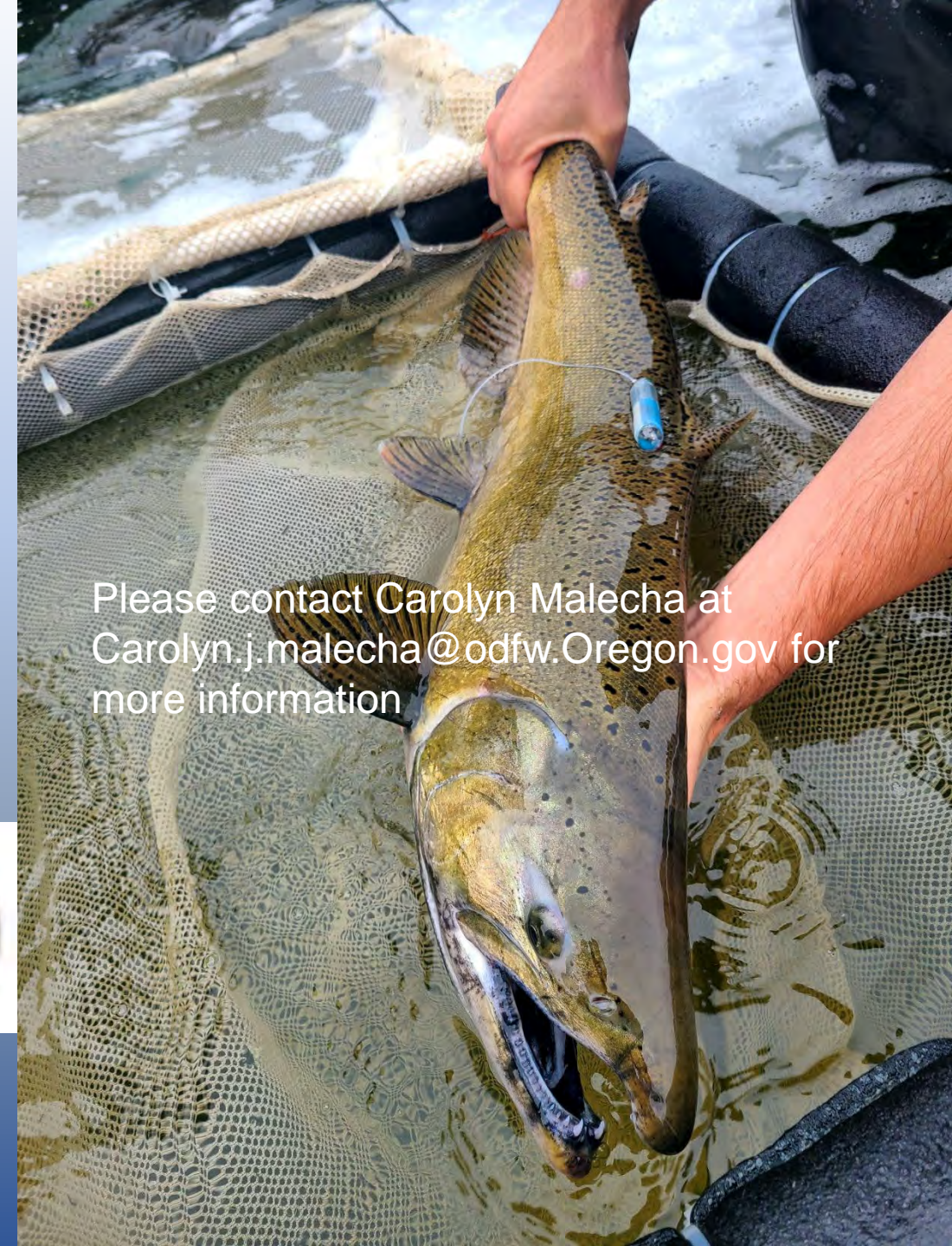
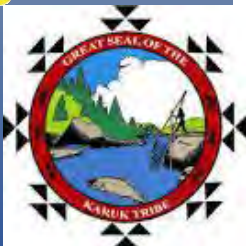
Bob Pagliuco, NOAA Restoration Center, [bob.pagliuco@NOAA.gov](mailto:bob.pagliuco@NOAA.gov)

Cyril Michel, University of Santa Cruz, NMFS SWFSC Affiliate, [cyril.michel@noaa.gov](mailto:cyril.michel@noaa.gov)

Jordan Ortega, Klamath Tribes, [jordan.ortega@oregonstate.edu](mailto:jordan.ortega@oregonstate.edu)

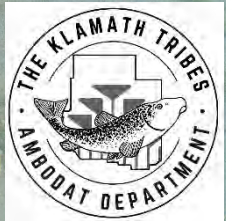
Alex Corum, Karuk Tribe, [acorum@karuk.us](mailto:acorum@karuk.us)

James Whelan, California Trout, [jwhelan@caltrout.org](mailto:jwhelan@caltrout.org)



Please contact Carolyn Malecha at [Carolyn.j.malecha@odfw.Oregon.gov](mailto:Carolyn.j.malecha@odfw.Oregon.gov) for more information

# Repopulation of Chinook Salmon in Upper Klamath Lake and It's Major Tributaries



By Jordan Ortega  
Anadromous Fish Specialist  
The Klamath Tribes Ambodat  
Department

Photo: Paul Wilson

# Klamath Dam Removal

- 4 dams removed August 2024
- 3<sup>rd</sup> largest producer of Chinook on west coast
- 2-4% of historical abundance
- 751 km of stream habitat upstream of dams





Photo Paul Wilson

Photo Paul Wilson

# The Klamath Tribes

- Federally recognized tribe.
- Reserved Treaty Rights Area
- Restoring salmon essential given the loss of traditional subsistence fisheries



# The Monitoring Challenge

- Spatial Challenge
  - So much space!
- Temporal Challenge
  - Fish moving throughout time!

**KLAMATH RIVER FISHES**

The poster depicts fishes species representing all of the groups of native fishes within the Klamath River system.

The 25 fish species of the Klamath River system form a unique and diverse group throughout the entire watershed, from headwater streams to the mouth of the river. The assemblage of fishes native to the Klamath River system includes widespread species, such as Clamnet salmon and Green sturgeon. In open forest headwaters on farms, such as the Klamath headwater lake and the Klamath River Legacy, like the Columbia River salmon to the north, the Klamath River is one of only three rivers in the Pacific Northwest to cut through the Cascade Mountains and drain directly into the Pacific Ocean. This system has such a diverse fish assemblage due in part to its large and complex watershed and unique water features such as Upper Klamath Lake. For example, the Klamath River system has the highest density of lamprey species of any major watershed throughout the world.

Fish occupy a key position in both aquatic and terrestrial food webs. Sea run species that are born in the ocean and mature in the river are a vital link between the freshwater and saltwater ecosystems. When fish return from the ocean to the river to spawn and die, their carcasses supply an essential source of marine nutrients into diverse terrestrial ecosystems. Hundreds of species, from insects to bears to humans, rely on fish as a vital source of food.

Through millennia, indigenous nations maintained intimate relationships with the healthy populations of the Klamath fishes. To correct these obstructions, such as dams, create fish passage barriers that have severely restricted breeding habitat for some species. Agricultural run-off and water diversion change water chemistry and flow rates, which can cause major fish die-offs and adversely affect breeding success. Excessive logging causes abnormally high water temperatures and levels of siltation that will reduce the available habitat of these aquatic animals. Most populations of native fishes in the Klamath River have experienced recent declines in numbers and some species are critically imperiled. Careful cooperative management of fish species in the Klamath River system is required to ensure their survival into the future.

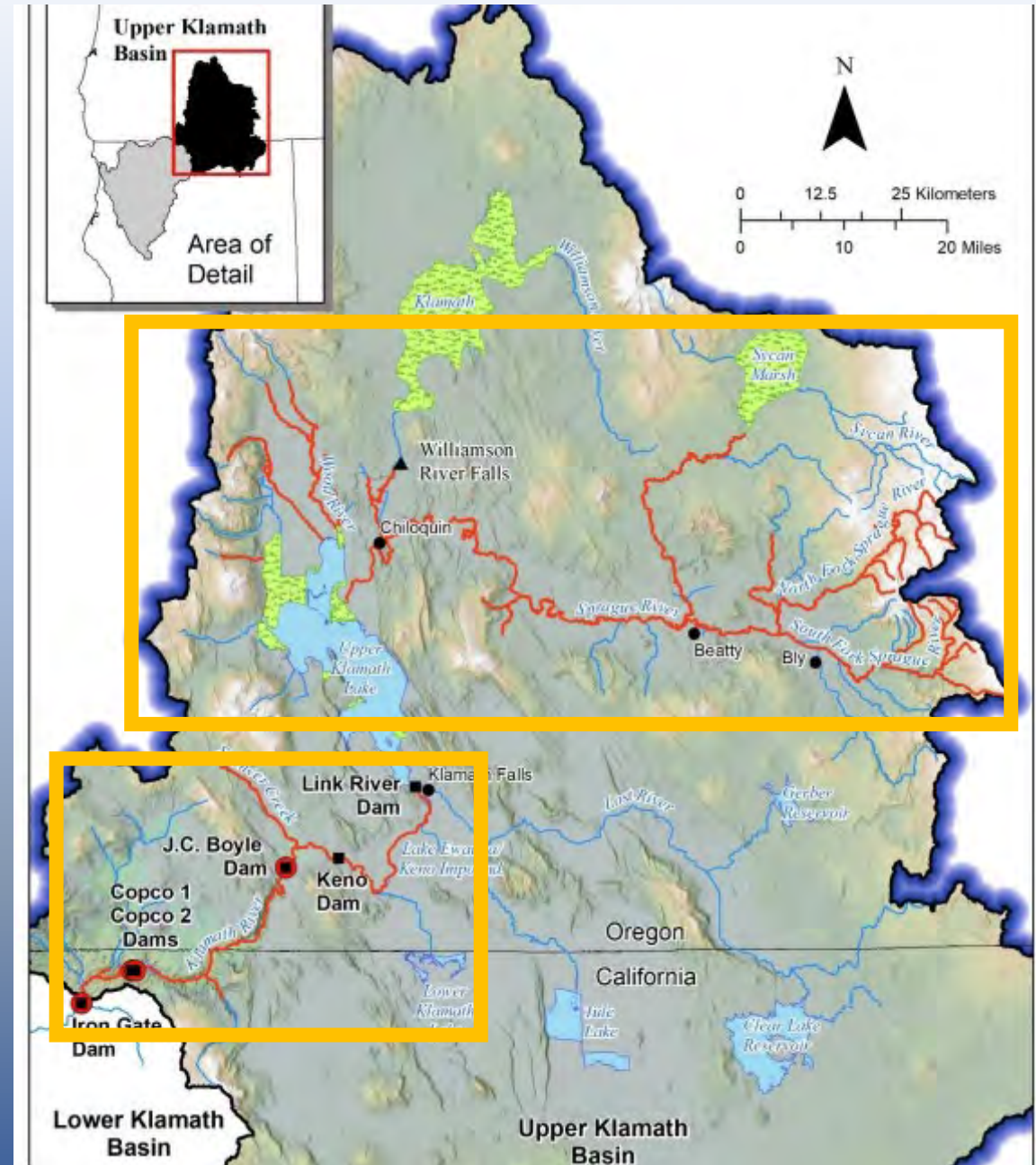
**Native Klamath River Species**  
(*in-er-dimic*)  
(*is-ay-pah-meh-mee*)

1. Green Sturgeon *Acipenser medirostris*  
(*is-ay-pah-meh-mee*)
2. Steelhead Trout (landrunners) *Oncorhynchus mykiss* *irides*  
(*is-ay-pah-meh-mee*)
3. Chinook Salmon *Oncorhynchus tshawytscha*  
(*is-ay-pah-meh-mee*)
4. Rainbow Trout *Oncorhynchus mykiss* *irides*  
(*is-ay-pah-meh-mee*)
5. Pacific Lamprey *Entosphenus americanus*  
(*is-ay-pah-meh-mee*)
6. Coastal Rainbow Trout (resident) *Oncorhynchus mykiss* *irides*  
(*is-ay-pah-meh-mee*)
7. Coho Salmon *Oncorhynchus kisutch*  
(*is-ay-pah-meh-mee*)
8. Klamath River Lamprey (*is-ay-pah-meh-mee*)
9. Three Spine Stickleback *Gasterosteus aculeatus*
10. Jenny Creek Sucker (smaller population limited to Jenny Creek)  
*Catostomus commersoni*
11. Rock Bass *Ambloplites rupestris*
12. Klamath Smallmouth Sucker *Catostomus commersoni*  
(*is-ay-pah-meh-mee*)
13. Western Brook Lamprey *Lampetra trutta*
14. Klamath Speckled Dace (*is-ay-pah-meh-mee*)





**Water Climate Trust** **Green Springs Inn & Cabins** **KS Wild** **Fly Shop**

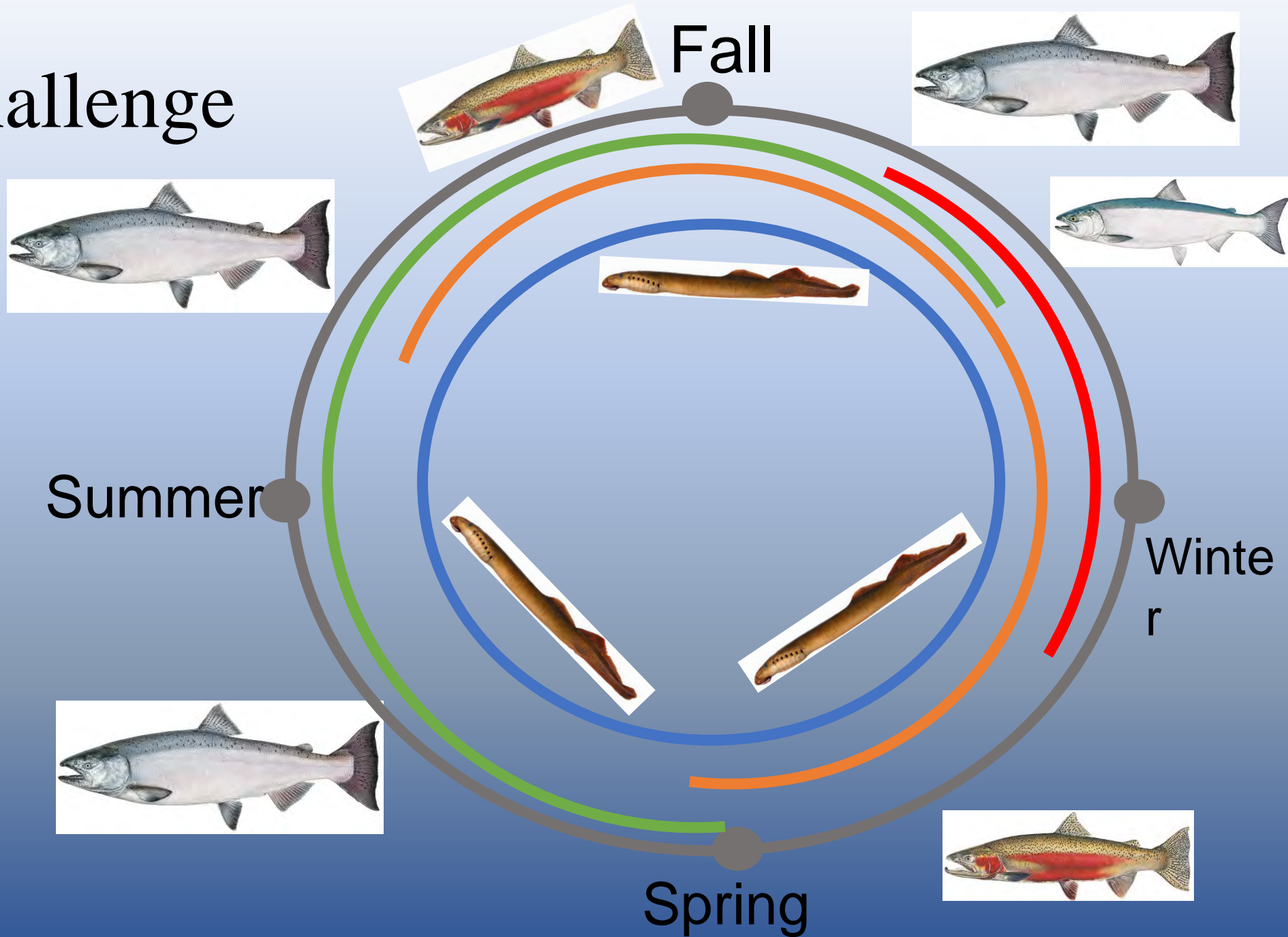
# Spatial Challenge

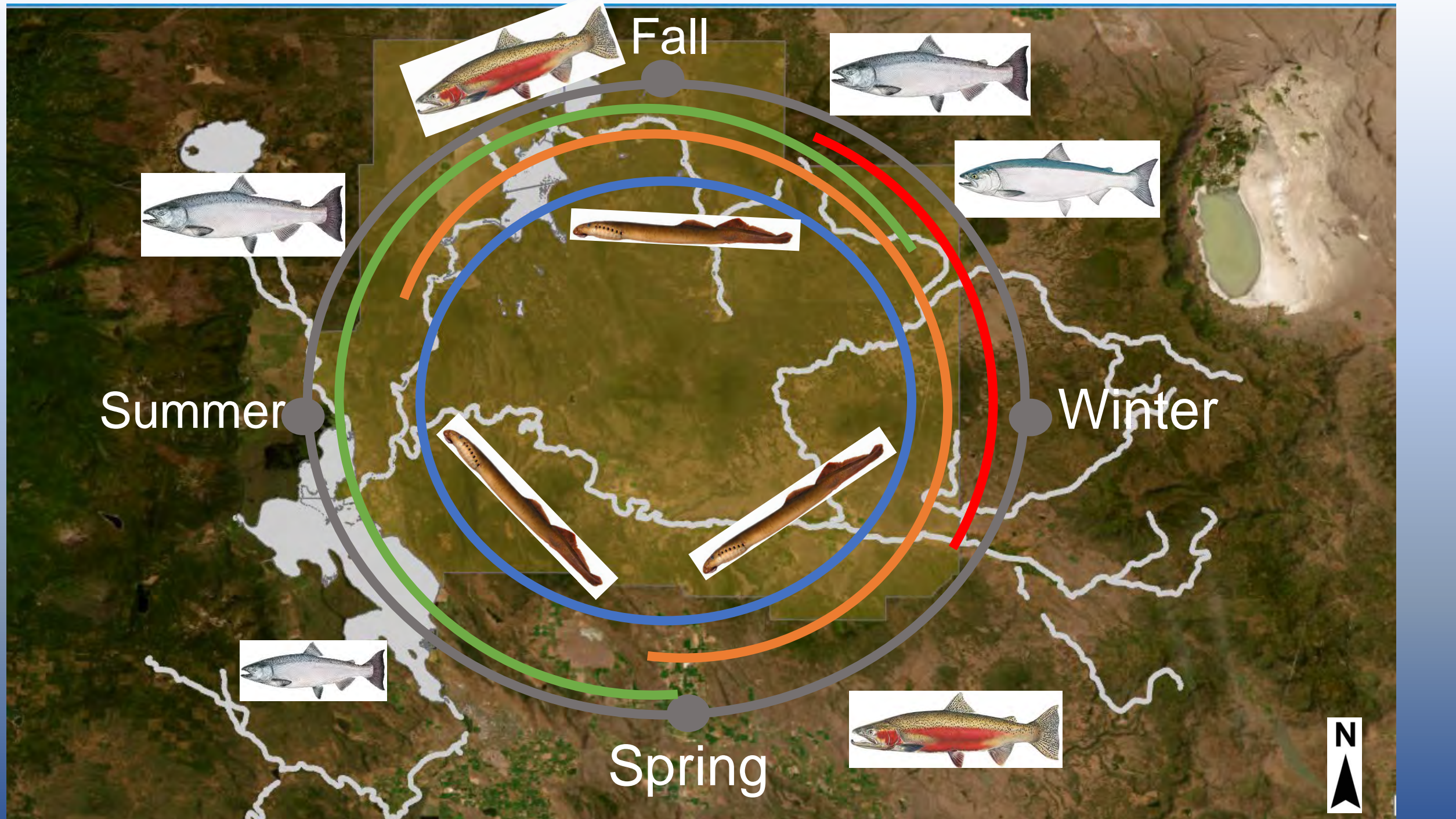
- 152.5 km between Iron Gate dam and UKL (including tributaries)
- 598.5 km upstream of UKL



# Temporal Challenge

- Coho 
- steelhead 
- Chinook 
- Pacific Lamprey 





Fall

Winter

Summer

Spring





Photo: Paul Wilson

# Monitoring Strategy

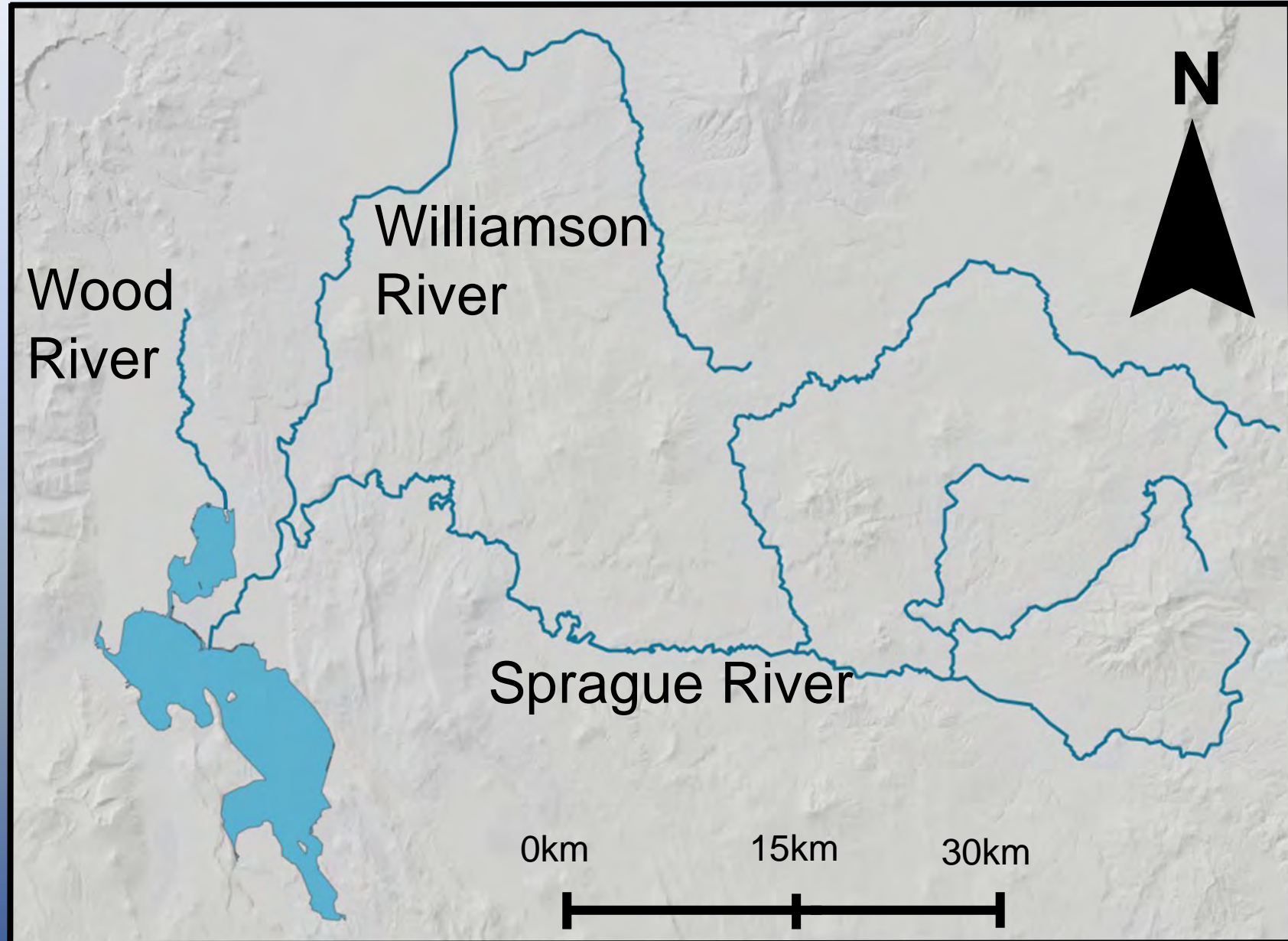
- Radio Telemetry
- Motion Sensing Cameras
- Visual Surveys



Photo Paul Wilson

# Focal Area

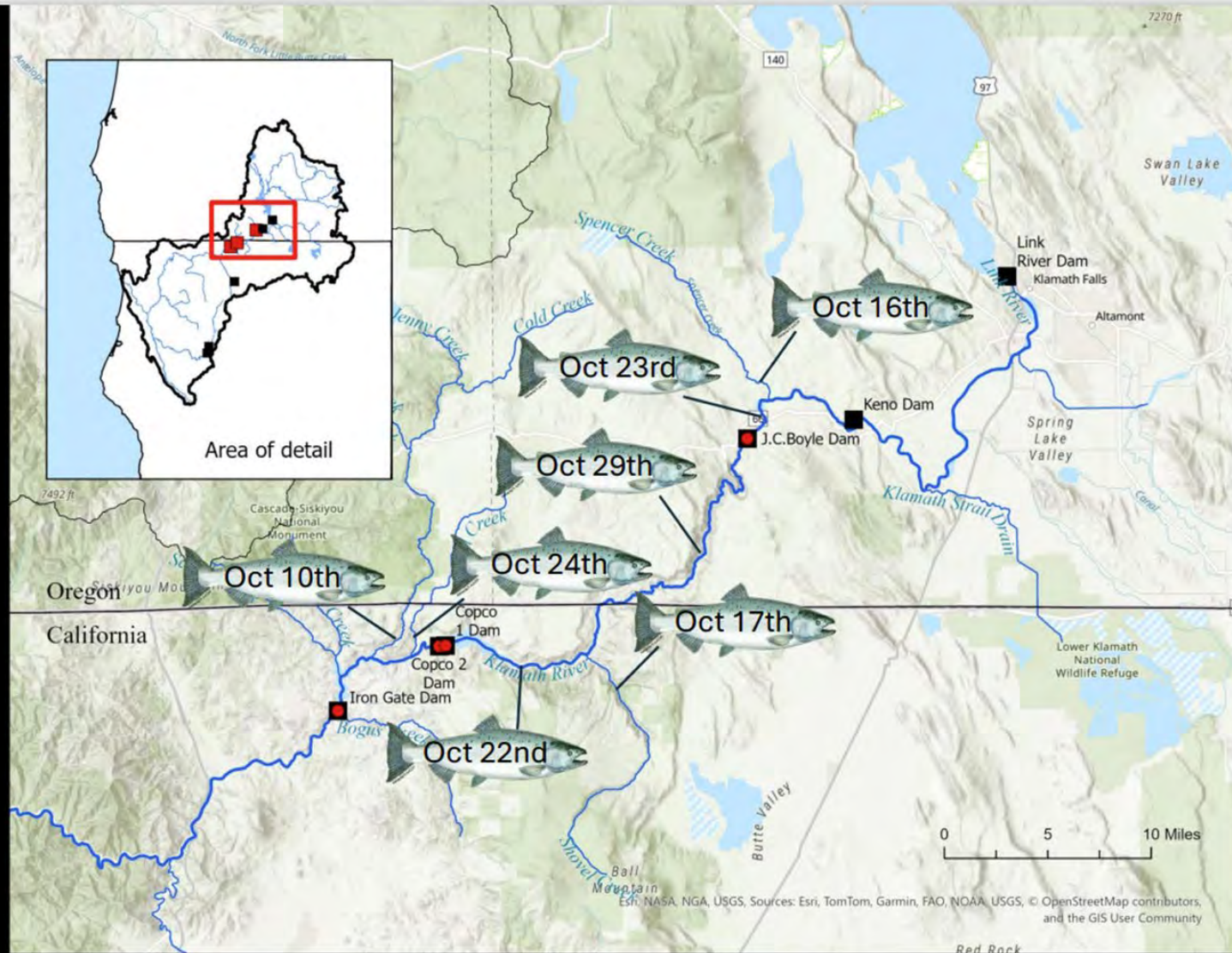
- Klamath Tribes monitoring focus is major tributaries of UKL
- ODFW, Karuk Tribe USFWS, CalTrout etc. monitor Downstream



# 2024 Chinook Salmon Run: First Year Post-Removal

## First observations of fall-run Chinook Salmon

- Oct 10<sup>th</sup> - Jenny Creek, CA
- Oct 16<sup>th</sup> - Spencer Creek, OR
- Oct 17<sup>th</sup> - Shovel Creek, CA
- Oct 22<sup>nd</sup> - Klamath River, CA above former Copco 1 Dam
- Oct 23<sup>rd</sup> - Klamath River, OR above former JC Boyle Dam
- Oct 24<sup>th</sup> - Fall Creek Hatchery, CA
- Oct 29<sup>th</sup> - Klamath River, OR below former JC Boyle Dam



# 2025 Monitoring Objectives

- Spatial Distribution
- Run Phenology
- Size, Sex, and Age Structure
- Hatchery Contribution
- Run Size



Photo Paul Wilson

# Methods

- Spatial Distribution
  - Visual surveys
- Run Size & Timing
  - Redd counts
  - Live fish counts
- Population Characteristics
  - Carcass collection
    - Size distribution
    - Age Distribution
    - Hatchery Contribution



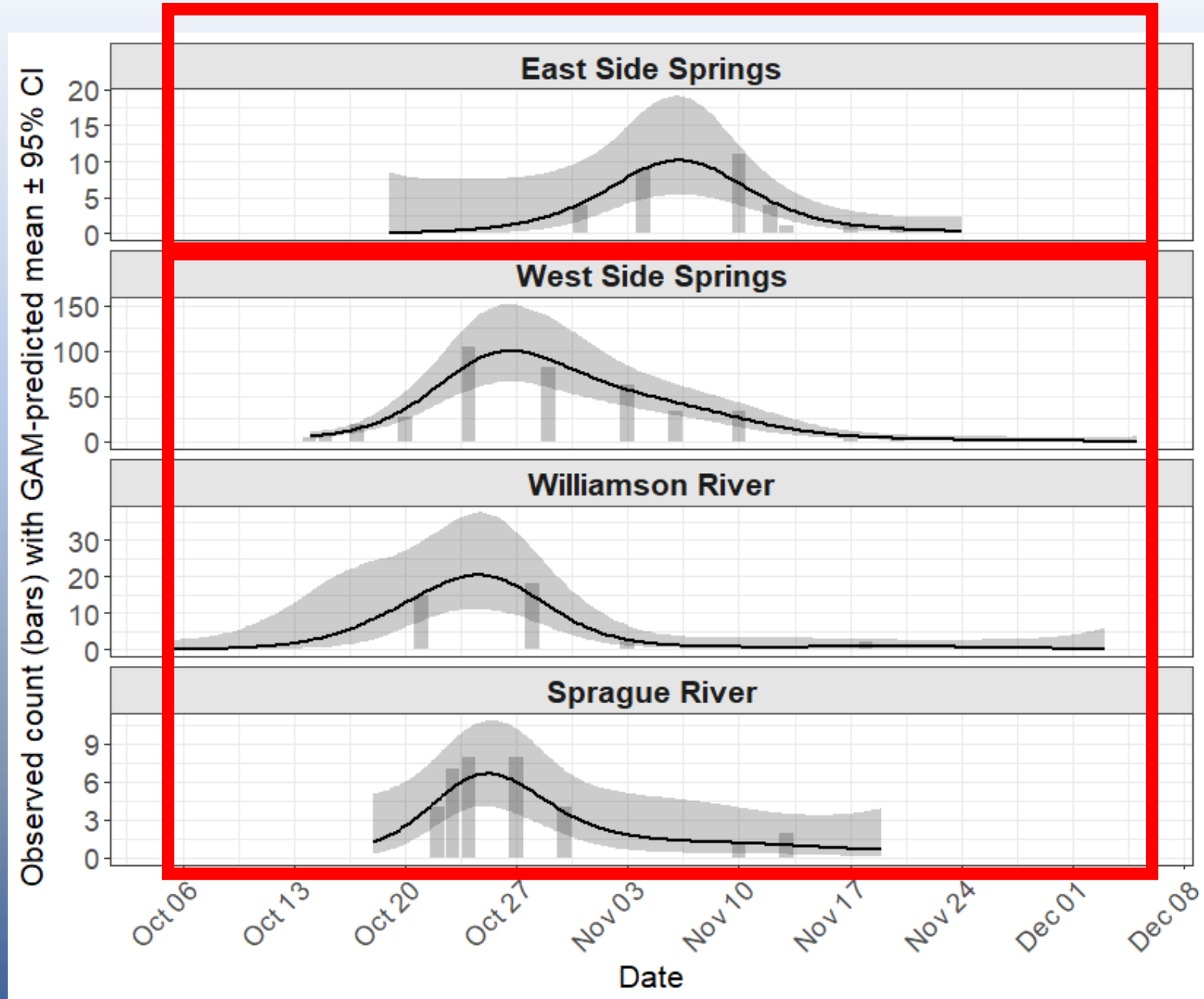
# Spatial Distribution

- Widespread spawning distribution
- Farthest upstream observation
  - 150 km to UKL
  - 580 km to ocean



# Run Phenology

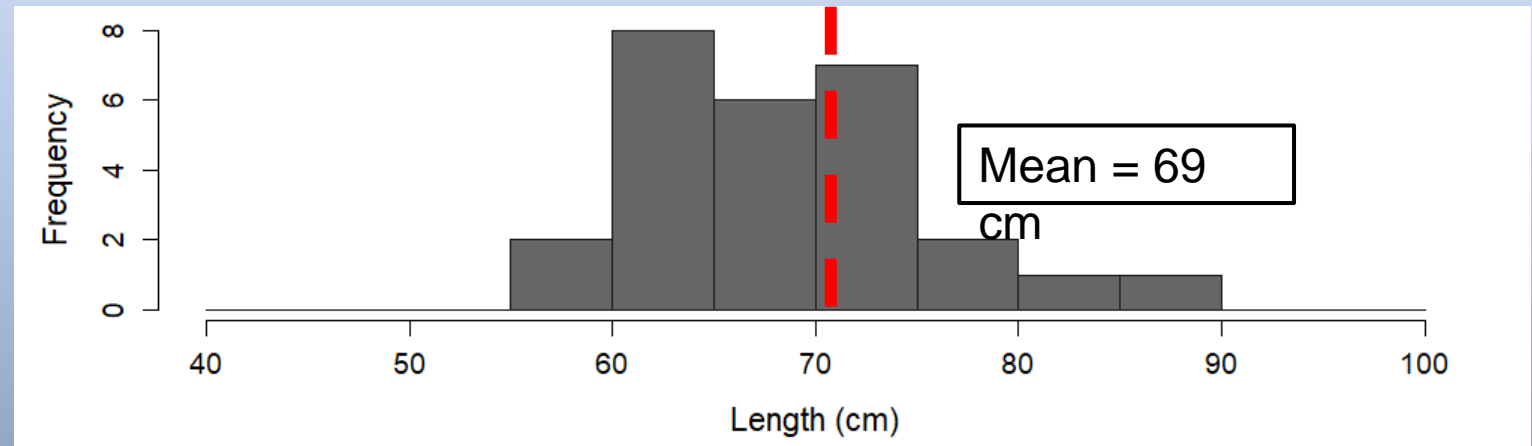
- Spawning activity spanned 1.5 months
- Peak spawning late October at West Side Springs, Williamson, Sprague
- Peak spawning 2-weeks later at East Side Springs



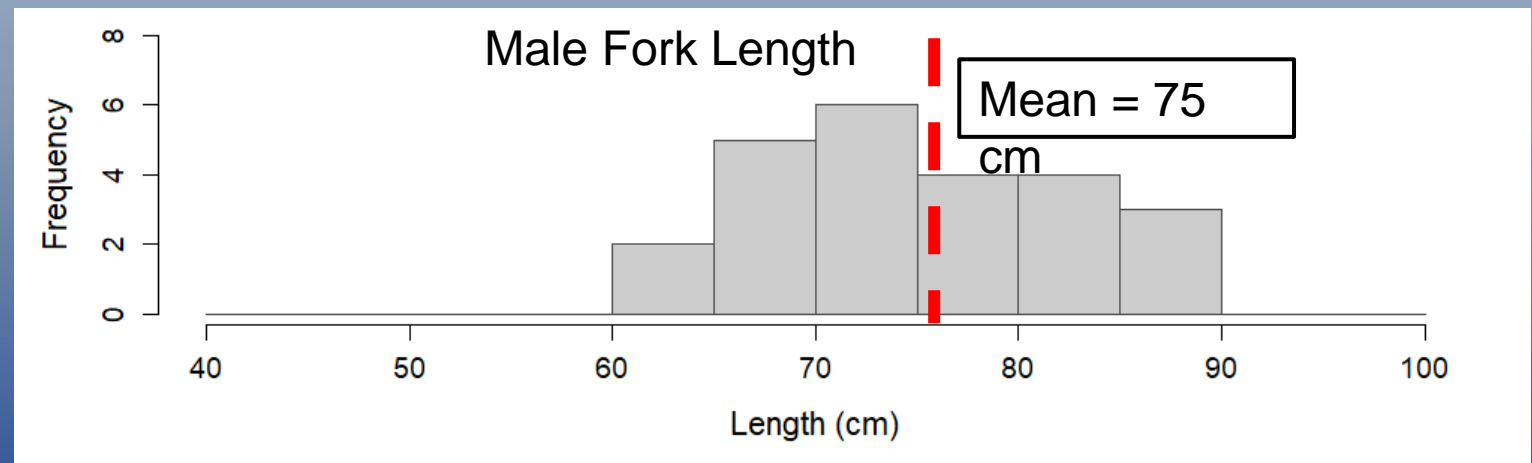
# Sex, Size, and Age

- Approximately even sex ratio
- Males > Females
- Consisted of age 3 & 4 adults
  - No jacks observed

Female Fork Length



Male Fork Length



# Hatchery Contribution

63/219=29 %



Majority of run  
was *wild fish!*

2025 UKL Miscellaneous Tribs Survey CWT and Hatchery Contribution								
CWT	Location	Release type a/	Brood year	Sample number	Production multiplier b/	Production estimate c/	Sample expansion d/	Expanded estimate e/
60032	IGH	AF	2022	3	4.0363	12.1090	3.9000	47.2251
60478	IGH	AF	2021	1	1.0101	1.0101	3.9000	3.9394
60788	IGH	AF	2021	1	1.0157	1.0157	3.9000	3.9614
61546	IGH	F	2021	1	1.0146	1.0146	3.9000	3.9570
62269	IGH	F	2021	1	1.0056	1.0056	3.9000	3.9218
CWT sample subtotal =				7				
Hatchery contribution of carcasses sampled subtotal =						16		
Total of estimated hatchery contributions =								63
a/	Release type; F=fingerling, Y=yearling, AF= advanced fingerling							
b/	Production multiplier is the ratio of # of fish released/fish marked							
c/	Production estimate is the sample number multiplied by the production multiplier							
d/	Sample expansion is the ratio of the estimated total run size and the number of carcasses sampled							
e/	Expanded estimate is the production estimate multiplied by the sample expansion							

# Run Size

- Groundwater Portions of UKL
  - *Trapezoidal approximation method* to calculate area under the curve (AUC)

$$\text{Run Size} = \text{AUC}/\text{Residence Time} = \sum \left[ \frac{(C_i + C_{(i+1)})}{2} \times \Delta t \right]$$

- Williamson, Wood, Sprague
  - *Redd count* based run size estimate
    - Number of Redds x 2 = Run Size



# Run Size

- Upper Klamath Lake: 219
- Williamson: 82
- Sprague: 22
- Wood: 12

TOTAL RUN SIZE  
(minimum) = **335 Fall**  
**Chinook**



Photo: Paul  
Wilson

# Next Monitoring Steps...

- Returning adults encouraging but does not reveal if they will be able to establish self sustaining populations
- To evaluate reproductive success we implemented a monitoring strategy that includes the use of rotary screw traps



Photo Mark Martin

# Juvenile Chinook Salmon Monitoring

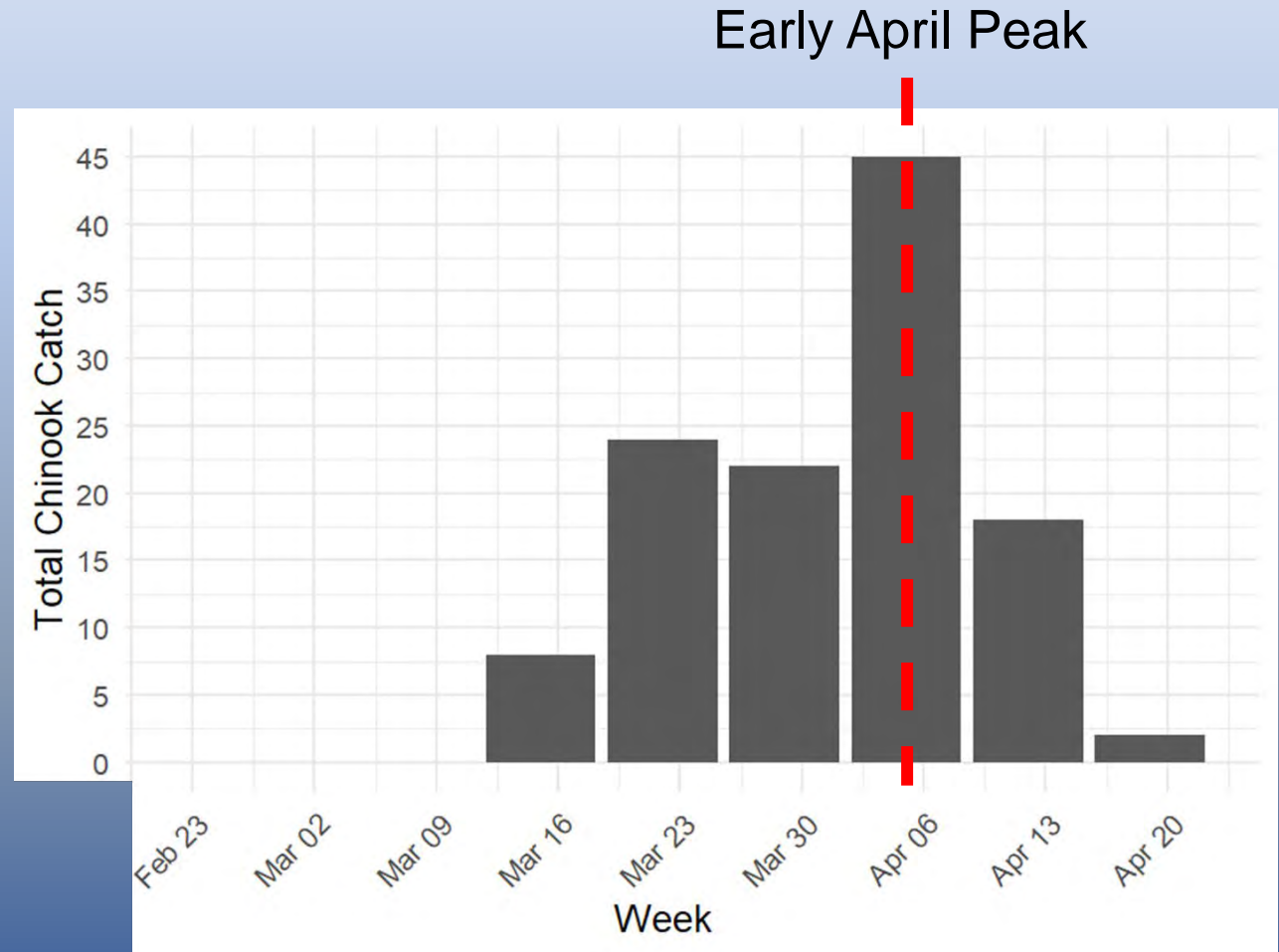
- Operating two 5-ft rotary screw traps
  - Sprague River
  - Williamson River



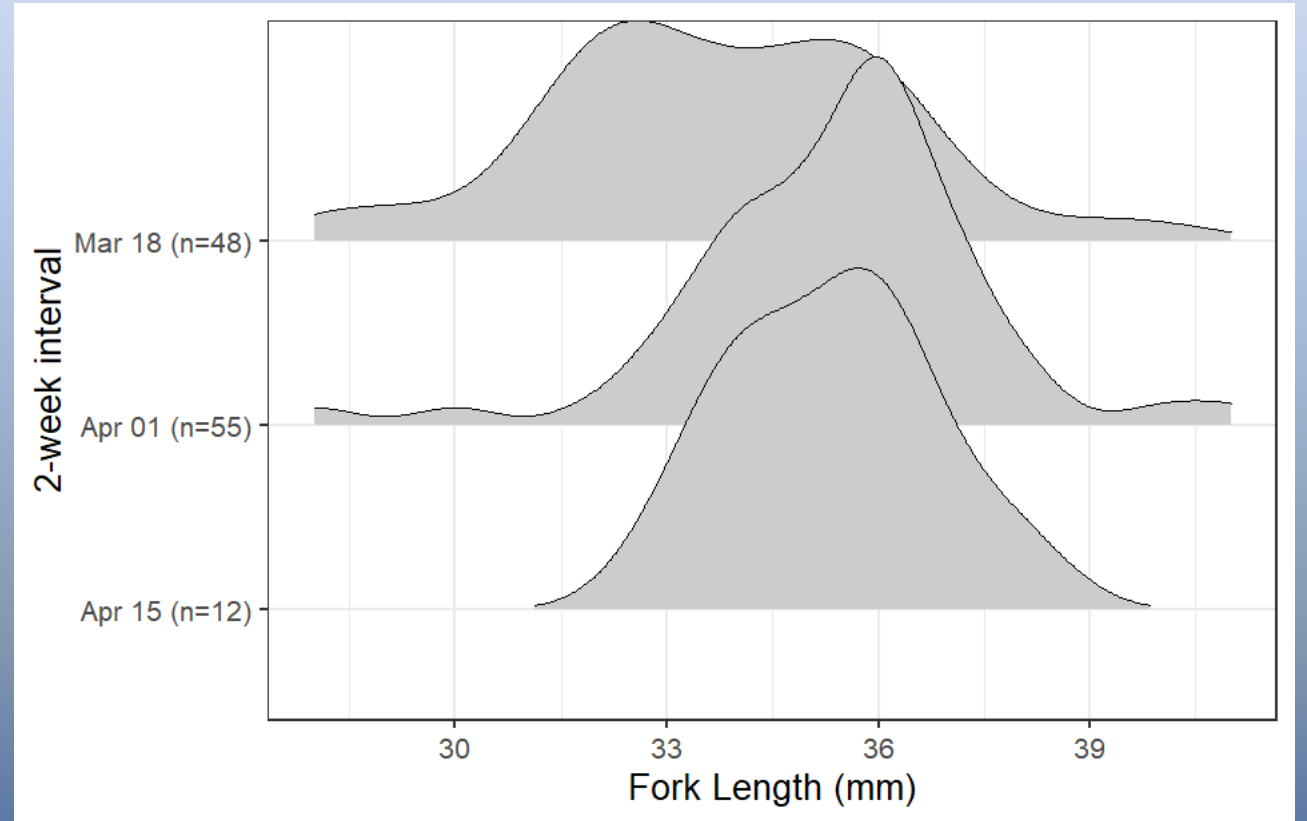
# Catch Through Time



Photo: Paul  
Wilson



# Size Through Time

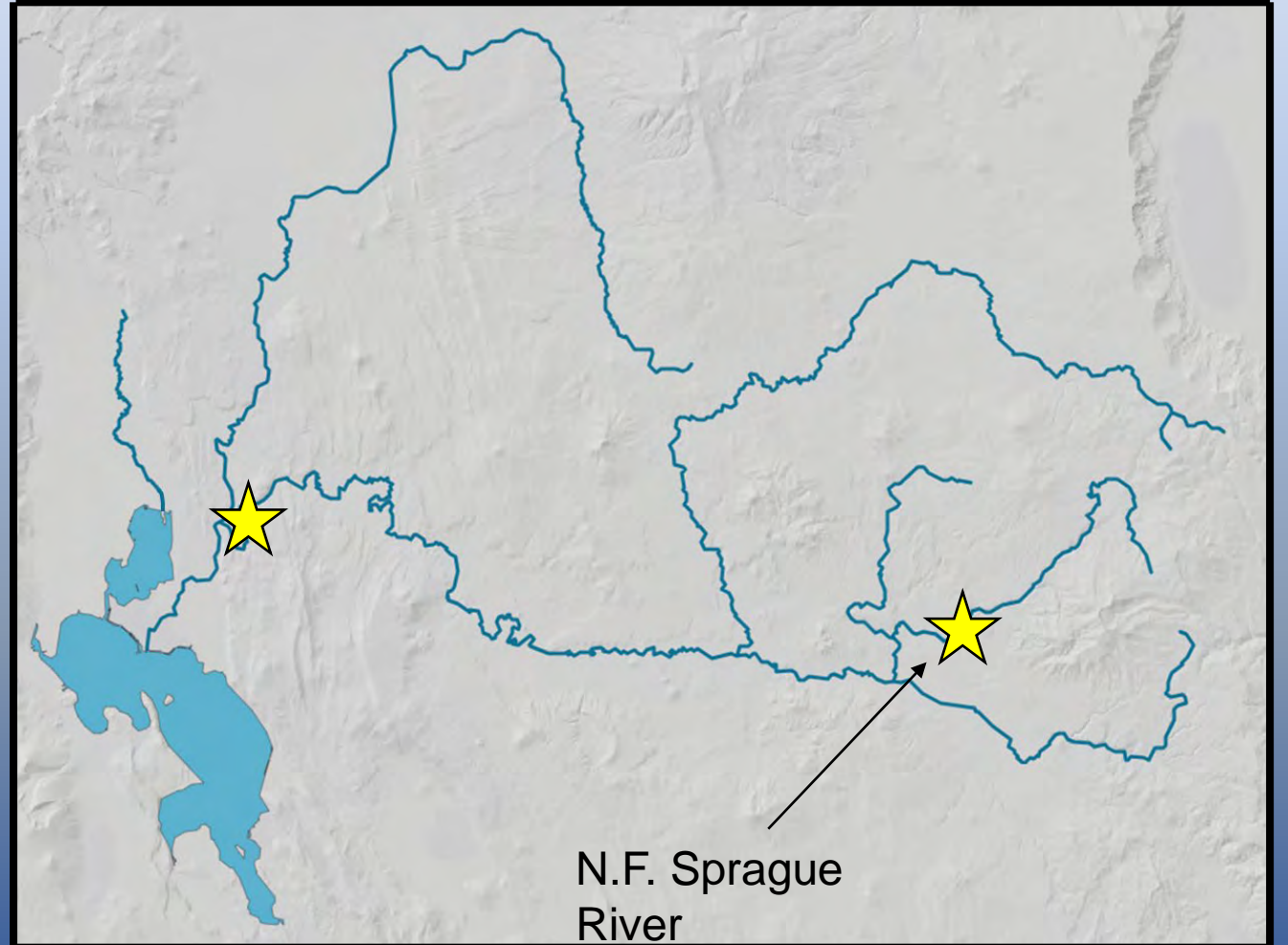


Chinook size indicates growth and downstream movement of the 2026 cohort

# Screw Trap Highlight



- Released Fall 2025 on North Fork Sprague
- 3 captured April 2026
  - Over-wintered in Sprague
- Distance of > 130km



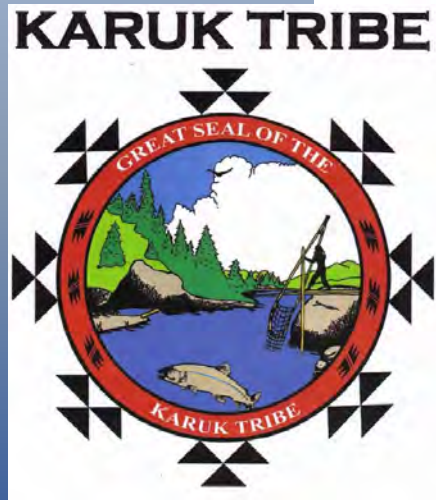
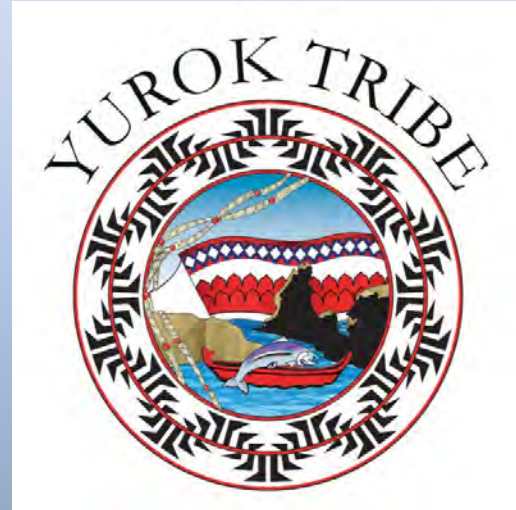
# 2025 Chinook Monitoring Take Home...

- Adults distributed upstream rapidly across a broad spatial extent
- Evidence of successful spawning as indicated by the presence of recently emerged chinook fry
- Early response underscores the importance of restoring connectivity in large watersheds
- Continued monitoring by The Klamath Tribes Ambodat Department



Photo Paul Wilson

# Our Partners





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# Klamath River Effectiveness Monitoring

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James Whelan

2025-2026

Please contact James Whelan at [jwhelan@caltrout.org](mailto:jwhelan@caltrout.org) for more information

Photo by Michael Weir



# Klamath Basin Fisheries Collaborative

**KBFC Database Updates**



## KLAMATH BASIN FISHERIES COLLABORATIVE

The Collaborative facilitates access to fisheries data among state, federal, tribal, and non-profit organizations within the Klamath Basin.

Mouth of the Klamath River  
(photo credit: Thomas Dunklin)

Monica Diaz, PSMFC Project Lead Supporting the KBFC.  
KBFC Leadership Team



### KBFC Purpose

- Facilitate access to fisheries PIT tag data and associated metadata
- Build a network of collaborators
- Advance research to inform fisheries management and restoration actions

*"If you want to go fast, go alone; If you want to go far, go together"*







### Survey123 for data entry

- Digital Survey123 forms for recording data.
- Uses **SerialMagicKeys** to transfer PIT tag data from the reader to the Survey123 form.
- Easy, automated, and accurate data upload to servers.

A screenshot of a mobile application interface for "KBFC Data Collection Forms". The form is titled "Mark-Recapture-Recovery (MRR) Effort". It includes a header with the Klamath Basin Fisheries Collaborative logo and a greeting: "Hello Collaborator! Data entered into these preformatted forms can be directly integrated into the KBFC database. Any modification to these forms may hinder the successful upload of data into the KBFC database. Please fill out the forms from top to bottom as some questions are conditional." Below this, there are sections for "Data Question Definitions" with fields for "Project ID" and "Site ID", a "Start of Effort (DateTime)" field, a "Capture Method" dropdown, and a "Comments" text area. At the bottom, there is a section for "MRR Records: Repeat section for individual mark, recapture or recoveries within an Effort" with a "Process Date Time" field and a "MRR ID" field.

Mark, Recapture,  
Recovery (MRR) form

A screenshot of a mobile application interface for "KBFC Data Collection Forms". The form is titled "Remote Deployment Antenna". It includes a header with the Klamath Basin Fisheries Collaborative logo and the same greeting as the MRR form. Below this, there are sections for "Data Question Definitions" with fields for "Project ID" and "Site ID", a "Select Data Collection Form" dropdown, a "Select Detection Site Form" dropdown, and a "Change In Remote Detection Deployed Antenna" section. This section includes fields for "Site Deployment ID", "Antenna ID", "Antenna Install Date", "Antenna Group", "Antenna Length (ft)", and "Antenna Orientation".

Remote deployment form



## 2026 Planned Updates

- Leadership oversees the database development
- March Leadership meeting
  - Identified area of improvement
  - Create a streamlined/ more self-sustaining database



## Planned 2026 Improvements and Changes

- Control over data visibility
- Finalizing public tag search feature on the KBFC website.
- Continuing support for Hexadecimal and Decimal PIT tag upload.
- Increased data download limits.
  - Up to 100,000 records
- Data availability grid

The screenshot shows the KBFC Database website interface. At the top, there is a navigation bar with "KBFC Database", "Annual Meeting", "Resources", and "About" links. Below the navigation bar is a header image with a quote: "If you want to go fast, go alone. If you want to go far, go together" - African proverb. The main content area is titled "Search by PIT Tag" and includes a search input field with a "SEARCH" button. Below the search field is a table with the following columns: PIT TAG, TYPE, ORGANIZATION, SITE NAME, ENCOUNTER DATE/TIME (UTC), and EMAIL. The table contains five rows of data.

PIT TAG	TYPE	ORGANIZATION	SITE NAME	ENCOUNTER DATE/TIME (UTC)	EMAIL
3D6.00084E2972	MARK	NOAA	LKlamathBeaverCrxH	9/1/2011 10:00:00 AM	noaa@example.com
3D6.00084E2AF2	MARK	NOAA	LKlamathBeaverCrxH	9/1/2011 10:00:00 AM	noaa@example.com
3D6.00084E282D	MARK	NOAA	LKlamathBeaverCrxH	9/1/2011 10:00:00 AM	noaa@example.com
3D6.00084E2865	MARK	NOAA	LKlamathBeaverCrxH	9/1/2011 10:00:00 AM	noaa@example.com
3D6.00084E28D0	MARK	NOAA	LKlamathBeaverCrxH	9/1/2011 10:00:00 AM	noaa@example.com



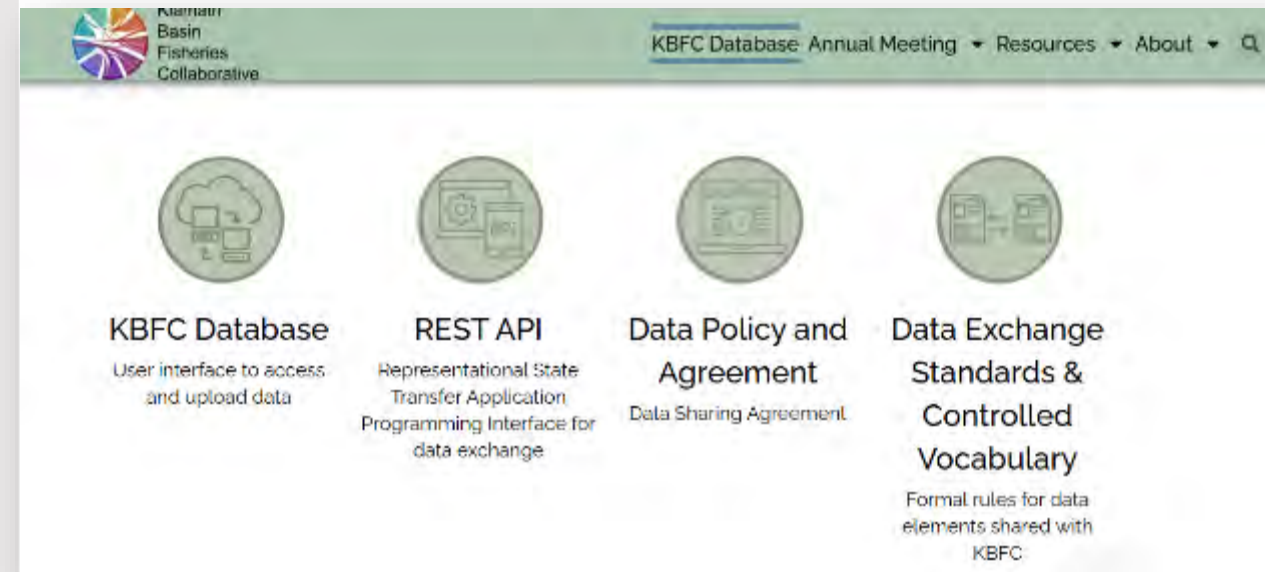
New Support Contact:  
[kbfcsupport@psmfc.org](mailto:kbfcsupport@psmfc.org)

- for your database related questions and concerns.
- created to streamline and speed up database issue resolution.



## Next Steps

- Anticipate updates implemented and ready to be used by mid-June 2026
- Updates to Data Sharing Agreement(DSA) to reflect current features once updates implemented
- Can view more information on the KBFishC.org including
  - the data fields in the DES and Controlled vocabulary
  - Revised DSA once posted



# Salmon Discussion

Data methodologies,  
standardization, and needs



USFWS Klamath Basin  
Monitoring Strategy  
(KBMS)

June 16-17

Hybrid  
Ashland, OR

<https://ifrmp.org/basin-strategy/post-dam/>

Klamath Basin Monitoring  
Program (KBMP)

June 18

Hybrid  
Yreka, CA

[www.kbmp.net](http://www.kbmp.net)

KBFC Leadership  
Meeting

September 17

Virtual

Emerging Technologies  
and Information Sessions  
(ETIS)

October 26 -28

Stevenson WA

<https://pnamp.org/projects/2026-etis/>



Klamath  
Basin  
Fisheries  
Collaborative

## Upcoming Events of Interest