Kokanee Fry Trapping and RSI Update

There is Kokanee in them thar streams!

TROUT UNLIMITED

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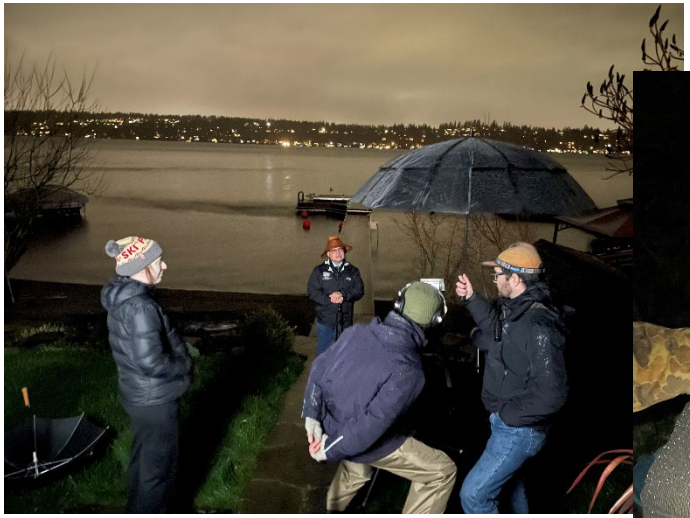
Fry Trapping

This year marks the 18th year since the Three Rivers Chapter began counting kokanee fry in Lake Sammamish!

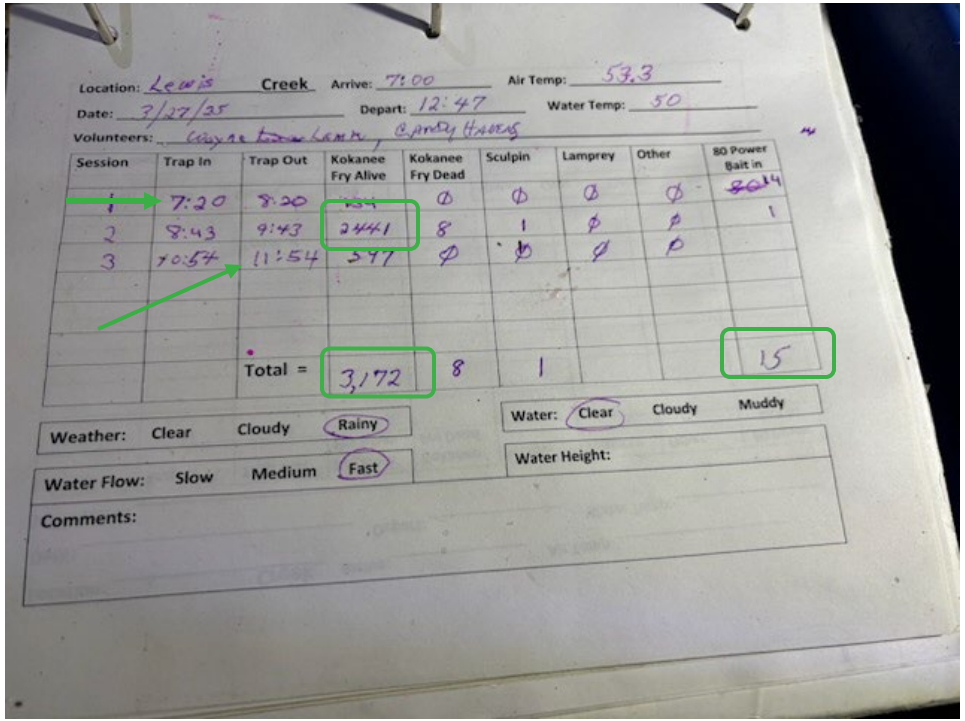
Many thanks to our Volunteers!!!!

- This project would not be possible without volunteers from the chapter and our community! Especially this year!!!!

We had some VITs (Very Important Trappers) 3/20/25



And a TON of Kokanee Fry!



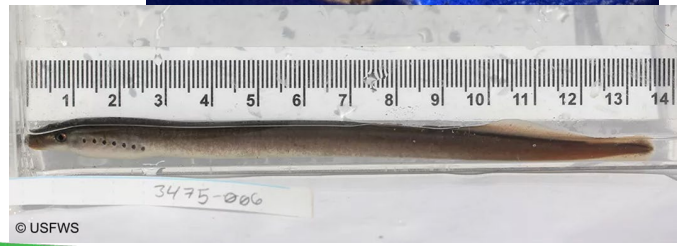
Location: Lewis Creek Arrive: 7:00 Air Temp: 53.3
Date: 7/27/25 Depart: 12:47 Water Temp: 50
Volunteers: [illegible]

Session	Trap In	Trap Out	Kokanee Fry Alive	Kokanee Fry Dead	Sculpin	Lamprey	Other	80 Power Bait in
1	7:20	8:20	[illegible]	0	0	0	0	~~80~~ 14
2	8:43	9:43	2441	8	1	0	0	1
3	10:57	11:54	577	0	~~1~~ 0	0	0	
		Total =	3,172	8	1			15

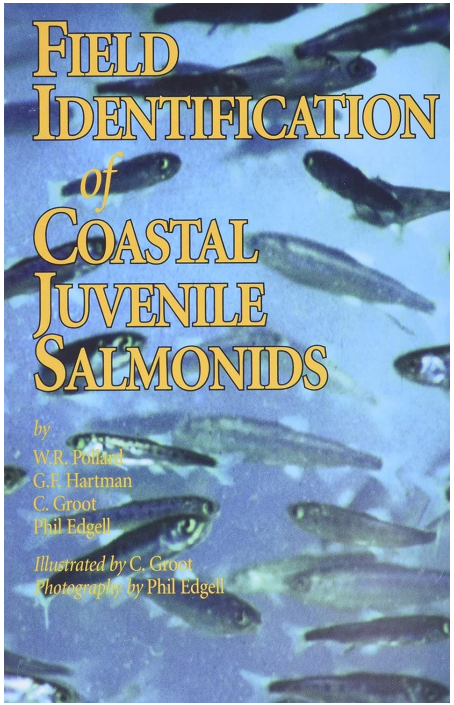
Weather: Clear Cloudy (Rainy)
Water: (Clear) Cloudy Muddy
Water Flow: Slow Medium (Fast)
Water Height:
Comments:

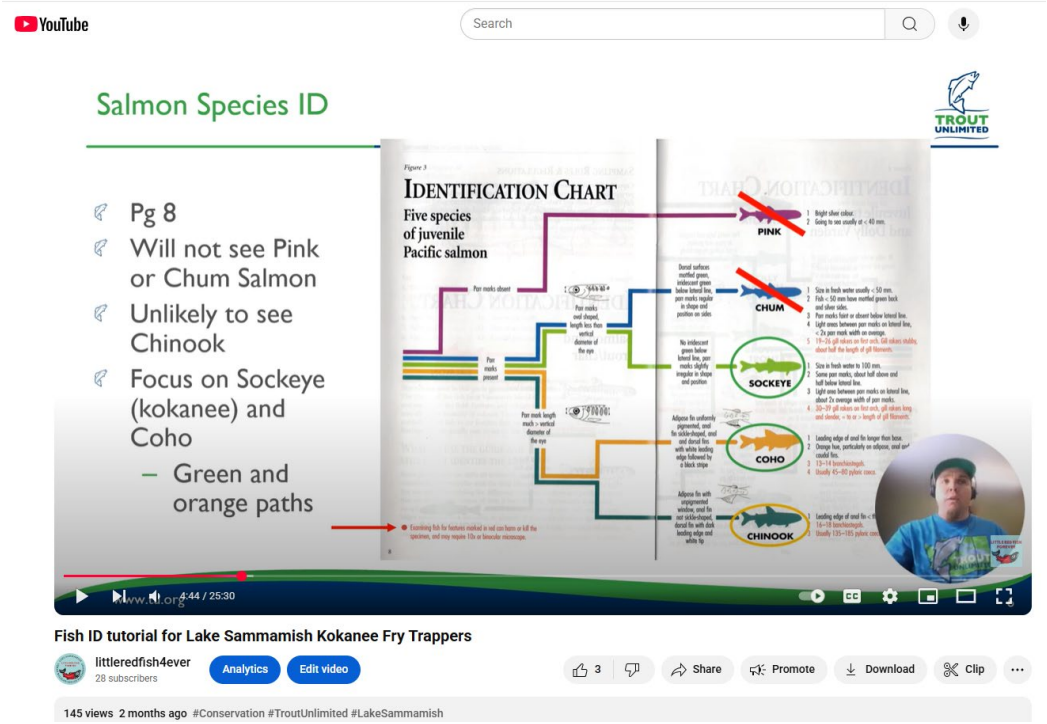
Fish ID?

- Can be difficult for volunteers
- Can you ID these fish?

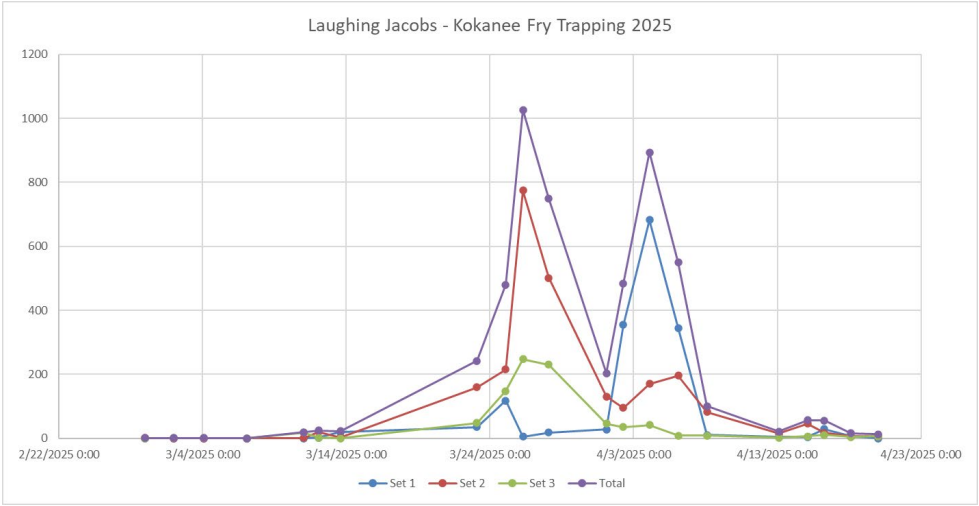


New resources to Trappers





Kokanee Fry Count – 4-21-24



- Lewis Creek – 15,281
- Ebright Creek – 14,999
- Laughing Jacobs – 4,956

- Total – 35,236 Kokanee fry counted

- Trends
  - Lewis averaging 200-300 kokanee per night
  - Ebright winding down with 18 kokanee counted in last trapping session
  - LJ winding down with 12 kokanee caught in last trapping session

Kokanee Fry Trap updates

- Our Traps are showing their age after nearly 2 decades of service
- Looking to update design and make install and operations easier
- TU secured $10,000 for the project
  - Embrace A Stream Grant
- Partnered with UW Bothel
  - Student Project
- Worked through several design iterations and students are currently working on a scale model for field testing
- Planned test deployment 2026.

The Sunday Salmon- Student updates

APRIL 13, 2025 ISSUE 1

The Sunday Salmon

THE WEEKLY KOKANNE FRY TRAP UPDATE

This Week

MATERIAL PREPARATION

APRIL TIMELINE

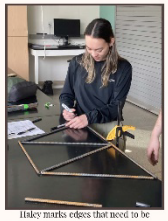
FIELD TRIALS

Hands-On Progress

This week, the team reached a key milestone by becoming certified in the UWB machineshop on all equipment needed to complete the project. We've also made steady progress on preparing materials for the scale model. All rebar has been cut to size, and we're nearly finished marking the corners in preparation for grinding.

Next, we'll grind the ends to ensure a proper fit for welding, which will occur later this week.

Once welding is complete, we'll shift focus to constructing the slide from acrylic sheets and then perforating the sheets. After that, we'll move on to building the buoyancy devices and begin the testing phase.



Haley marks edges that need to be removed in preparation for welding

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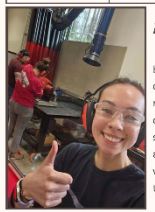
Project Timeline - April

Week 1	Cut Rebar to Lengths
Week 2	Grind rough edges & mark corners for grinding
Week 3	Grind Corners & Weld Rebar
Week 4	Bend Rebar & Perforate Acrylic
Week 5	Attach Remaining Pieces & Test!

Emily preparing the rebar by cutting it down to size with a chopsaw



Enthusiastic Team Member Haley supervising Emily & Jinu

Preparing for Field Trials

Testing will take place at University of Washington : Bothell Campus and is open to the public. The test is designed to evaluate trap performance under a range of stream and flow conditions. This will help confirm the effectiveness of key design features such as the buoyancy devices and rebar pylons—that are essential for maintaining trap stability in the water. Additional details will be shared soon for those interested in joining.

APRIL 20, 2025 ISSUE 2

The Sunday Salmon

THE WEEKLY KOKANNE FRY TRAP UPDATE

This Week

FRAME FABRACATION

ACRYLIC ASSEMBLY

Frame Assembly Takes Shape

This week, the team completed welding the main frame, marking a major milestone in the construction of our scale model. With the rebar cut, ground, and fitted, the core structure is now fully assembled, and work has begun on the slide and fry cages.

Progress on these components has been slower than anticipated due to limited access to welding equipment, and this phase may extend into next week. Nonetheless, steady progress continues, and we remain optimistic about staying on track as we transition into the next stage.

Once welding is finalized, we'll move on to constructing the acrylic slide, assembling the buoyancy devices, and preparing for field testing.

◆

Haley applying the initial tack welds to the frame

APRIL 20, 2025 ISSUE 2

Team Members Emily & Haley

Acrylic Assembly Underway

While welding work continues on the frame and cages, the team is also making headway on another key component of the trap: the acrylic slide. To stay on schedule, we've already staged the necessary materials in the university collaboratory, setting aside acrylic sheets earlier this month in preparation for fabrication.

In the weeks ahead, the sheets will be cut to size and perforated using a CNC machine to ensure consistent, clean holes. Once perforation is complete, the slide will be assembled and integrated into the welded frame—bringing us another step closer to field testing.

Acrylic Sheets that will form the slide

Kokanee Remote Stream Incubators (RSI)

- This year we operated and seeded three (3) Kokanee RSI's
  - Zackuse Creek
    - Sammamish
  - Idylwood Creek
    - Redmond
  - Tibbetts Creek
    - Issaquah
- One Whitlock Box site
    - Pine Lake Creek

Zackuse Creek

- 6,956 eggs planted
- Many thanks to the Ryan & Snoqualmie Tribe ENT Staff support through season!

Idylwood Creek

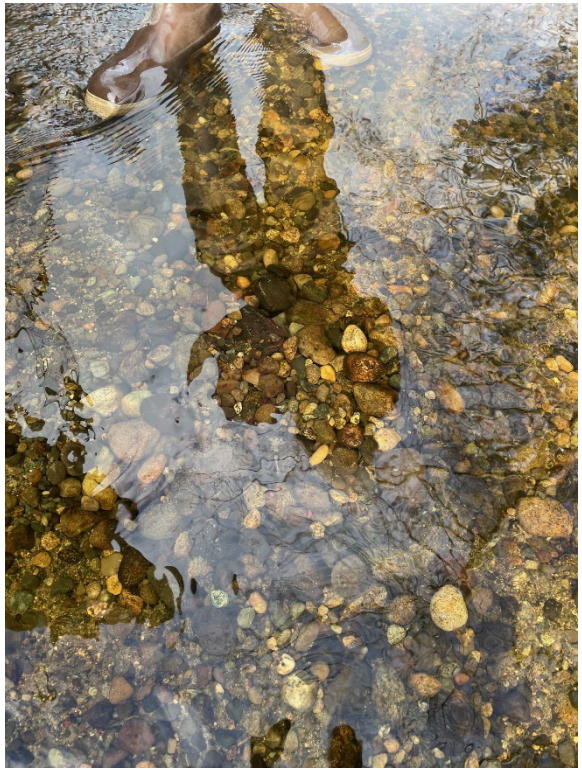
- Back up and running!
- Installed new supply lines
- 500 eggs installed
- Many thanks to Kayla Ellis & WCC for maintenance support!

Tibbetts Creek

- First year with eggs
- 750 eggs seeded

Pine Lake Creek

- 750 Eggs Seeded
- Whitlock boxes



Program History

- 27,502 eggs total
- 8th year of operation

	Winter Spawning Season/Egg Placement Year							
Site	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**Site Total Eggs**
Zackuse Creek	1035	1000	355	3041	3400	5,611	6,956	**21,398**
Idylwood Creek	350	0	117	1942	800	0	500	**3,709**
George Davis Creek			45	0	0	0	0	**45**
Tibbetts Creek							750	**750**
Pine Lake Creek					350	500	750	**1,600**
Season Total Eggs	**1385**	**1000**	**517**	**4983**	**4550**	**6,111**	**8,956**	

Program Success!

- All eggs from the supplementation program are thermally marked
- Allows identification of HOR kokanee and indicates supplementation pathway

- 2023/24 – 278 spawners
  - Collected 30 sets of otoliths
  - 40% marked
    - 17% originated from an RSI
- 2024/25 - ~8,300 spawners
  - 450+ otoliths collected and sent for analysis

Opportunities for expansion

- Program Goal
  - Increase the number of Lake Sammamish Tributaries supporting kokanee production
- Expansion opportunities
  - George Davis Creek
  - Pine Lake Creek
  - Vasa Creek
  - Tributary of Issaquah

Table 2. Estimated Lengths of Lake Sammamish "Late-run" Kokanee Spawning Habitat.

STREAM	Spawning and rearing habitat				
	Current habitat (feet)	Likely historic habitat; current use unknown; accessible (feet)	Likely historic habitat; currently not accessible; potential for restoration (feet)	Likely historic habitat; currently not accessible; no potential for restoration (feet)	Historic use uncertain; accessible (feet)
Alexanders Creek		535			
Carey Creek					19,942
East Fork Issaquah Creek		5,224			13,103
Ebright Creek	4,174				
Fifteenmile Creek					8,382
George Davis Creek	107		10,746		
Holder Creek					9,913
Idylwood Creek	714	3,071		1,173	
Issaquah Creek	16,829		21,051		27,034
Kanim Creek		2,170			
Laughing Jacobs Creek	4,019				
Lewis Creek	3,214			5,150	
Many Springs Creek (Lower)		691			
Many Springs Creek (Upper)			927		
McDonald Creek					7,757
NE-1 unknown		343			
NE-2 unknown		219			
NE-3 unknown		157			
NE-4 unknown		192			
NE-5 unknown		172			
North Fork Issaquah Creek	3,813	6,437			
NW-1 unknown		912		1,170	
Phantom Lake Outlet		296			
Pickering Creek		2,052		2,215	
Pine Lake Creek	2,178	3,792			
Schneider Creek	571			1,437	
SE-1 unknown		223			
SE-2 unknown		548			
SW-1 unknown	477			571	
SW-2 unknown		337		1,698	
Tibbetts Creek	6,608	4,528			8,825
Tosh Creek		3,793			
Vasa Creek	2,412	1,630		4,631	
Zackuse Creek	366		2,549		
TOTAL (feet)	**45,480**	**37,319**	**35,272**	**18,045**	**94,956**
Percentage of all likely historic habitat (136,116 feet)	**33%**	**27%**	**26%**	**13%**	

Questions?