

2024 in Review

Tuesday

Dec 31, 2024

Issue # 4



What's new today

Broodstock | Incubation | Rearing & Release | Community Value | Fun Facts | kʷikʷələm tákʷ Hatchery



Above: Broodstock Release in Cedar Creek – from left: Richard Chabot, Dan Boutin

ANGLERS MAGICAL “175”

Final milestone reached! 2024 released a full quota of Coho broodstock to Cedar Creek, in year 5 of a 5-year program. Members **angled the full Coho broodstock quota of 175**, 100 for release into Cedar Creek and 66 for our own use... 😊. On eggtake completion live adults were released to spawn naturally.



Top: Sandy Lamberton

Centre Right: Deanna (DFO)

Top Left Rodney Lee, Hailey Lavoie, Francesca Fogliata, Violet Sutherland helping with DNA & Data Collection.

Right: Yin Hui, Cathy McClean egg stripping

Bottom Left: Doug Flanagan, Tysan Dowdle (DFO), gathering milt.

Congratulations to our member anglers, your dedication and fish handling expertise is appreciated!



The Latest EGG News

INCUBATION

Coho

56,700+ eggs in GGMH Incubation

We are in good shape for brood year 2024!

Grist Goeson Memorial Hatchery				
			Total Harvested GrEggs →	84,524
			Total TSFR Offsite GrEggs →	27,763
As of Date		30g Count	GrEgg/Gram	Fecundity
	↓	AVG per Female →	137	4.6
				2,703
2024-12-19		Total Incubated Grams & GrEggs →	12,414	56,761
Earliest Shock Date	Date Trayed	Stack & Tray	Total Grams	Est GrEggs True GRN
2024-12-31	28-Nov-24	S4T2	1372.0	6217
2024-12-31	28-Nov-24	S4T3	1348.0	6206
2024-12-31	28-Nov-24	S4T4	1156.0	6423
2025-01-08	05-Dec-24	S4T5	1474.0	6306
2025-01-08	05-Dec-24	S4T6	1462.0	6577
2025-01-08	05-Dec-24	S4T7	1186.0	5942
		S4T8	0.0	0
2025-01-16	12-Dec-24	S3T2	1384.0	6622
2025-01-16	12-Dec-24	S3T3	1290.0	5677
2025-01-16	12-Dec-24	S3T4	1742.0	6791

Offsite Transfers: 15,800 to River Springs, 11,900 to kʷikʷələm tákʷ Hatchery (KTH). KTH will test their rearing systems with our Coho stock and release fry to Cedar Creek in June 2025.



Excitement & Wonder ... Look at them Fly

Above: A young helper releases Fry to the Coquitlam River on a nice day in July

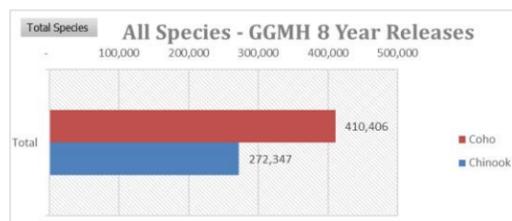
Centre Top: more young helpers releasing fry; Centre Left: Laura & Lucas Adema, Scarlet Locke, Hailey Adema

RELEASE HISTORY

Hatchery release targets are reviewed annually through DFO - SEP's (Salmon Enhancement Program) Production Planning Division for each fish Species. Each hatchery signs an agreement with DFO outlining approved species and release quantities to rear.

Tide Gate Study(GGMH Coho Fry: 3,000/Year)

Fish Health - UBC is in year 3 of a 5+ year Study to identify how Coho Fry moves in and out of smaller waterways during different levels of flow seeking "safe" cover. The tagged fry are monitored for movement in areas where tide gates affect water flows, within the Coq River system.



GGMH 8-year historical release quantities into the Coquitlam Watershed:



News on

CLIPPING FED FRY

17 member and volunteer clippers demonstrated their fine motor skills clipping 34,300+ Coho Fry adipose fins, the small one you can hardly see 😊, while enjoying each other's company, creating laughter, and enjoying "treats" in a relaxed environment on a warm summer's day!



In each of years 2020-2024, up to 45,000 adipose fins require clipping to meet SEP release targets of 25,000 Fry to Cedar Creek while



20,000+ are retained, reared, and released as smolts in the following year to the Coquitlam River recreational fishery.



Thanks to Community Clipping Volunteers: Joe Cornies, Stephanie Davidson, Mitchel Hui, Richard Hui, Richard Kapitsa, Rodney Lee, Allen Murray, Jeff Rudd.

Below: k̓'ik̓'əłəm Guardian Jaymz Higgs releasing fry to Cedar Creek



Good news...

What's being released in our watershed?

COHO and CHINOOK

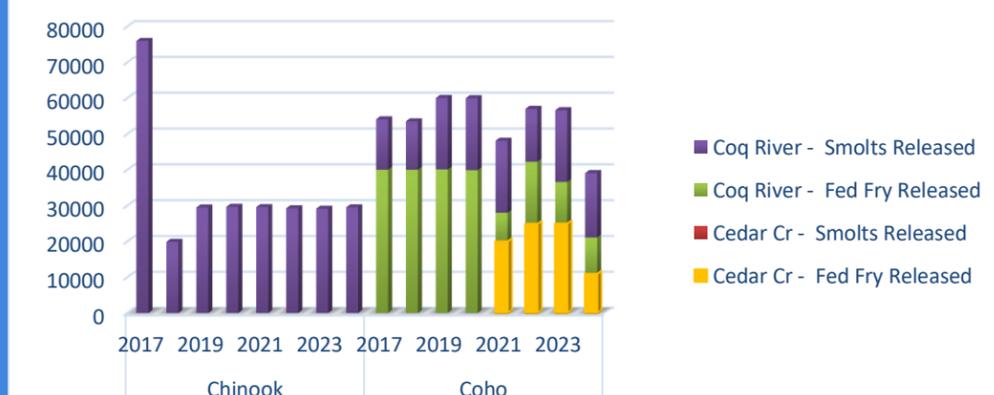
RELEASES

Top: Clipped and ready for release..Coho Fry
Bottom 2nd from Left: Vance Reach...What fin?

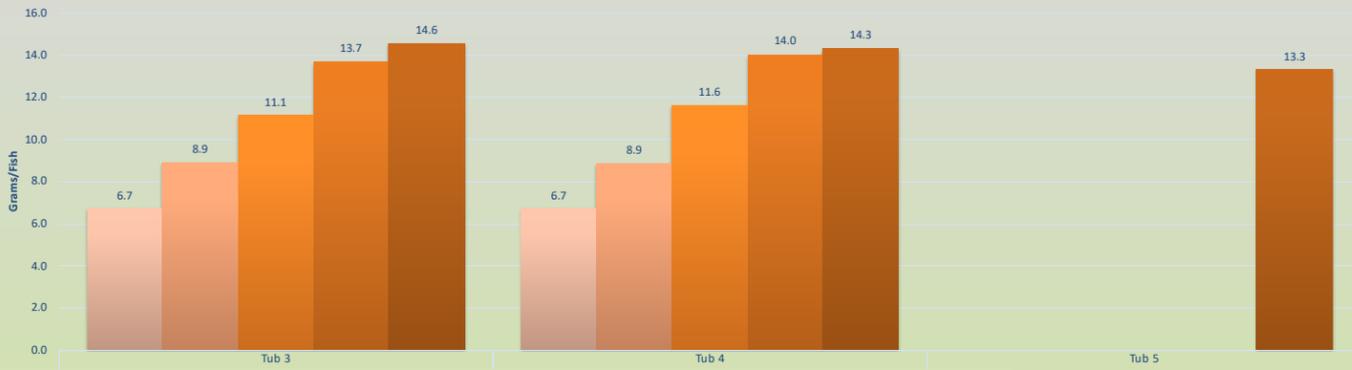
Who says we can't have FUN 😊



GGMH Calendar Year Fed Fry & Smolt Releases Coq River & Cedar Creek



GGMH COHO Fry Monthly Growth Progression Brood Year 2023 Aug thru Dec 15/2024



As of Date	Brood Yr	Species	GGMH Fish Feed to Weight Conversion Ratio			RATIO =B/A
			Released	On Hand	Total	
15-Dec-24	2023	Coho	87.8	258.1	345.9	1.02
06-Jun-24	2023	Chinook	187.3	0.0	187.3	0.69

The Growth Cycle from Fry to Smolts to...

REARING

An important part of the Rearing Process includes monthly weighing of Fry.

Weighing of fry allows for a quick “sight” assessment of overall fry health and ensure growth development follows “Wild Salmon” patterns. This triggers two key evaluation steps; 1) Feed Quantity and Frequency – “is it diet time”; and 2) Container Rearing Capacity – is the overall fish biomass within tolerable limits of each container’s capacity to maintain proper fish health. As fish grow and reach container maximum biomass limits, the fish are split into additional rearing containers. This “balancing” continues through to final fry or smolt release. To date, **Brood Year 2023’s Feed to Weight conversion ratio estimate is Coho 1.02 and Chinook .69 kg feed per kg of biomass**, “okay” and “very good”. The Coho are still on a diet after the summer gain ☺!

Right Bottom: newly ponded 1G Coho Fry; Top: 20G Smolts; Right: Coho BY 2023 morts to Dec 15, 2024



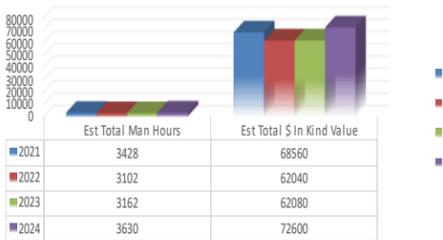
Creating Community & Value

GGMH Value to Community

When you consider the value of the member volunteer group, and the service to the community, it is considerable annually. On a conservative basis, “in-kind” value is estimated annually as part of the SEP reporting process. GGMH averages 34 continuous member volunteers, a small group yet mighty in deliverables.

To the Originating Members, thank you for having the vision, perseverance, and desire to create something spectacular and beautiful, a true legacy for each of you and for PCDHFC.

GGMH VALUE TO COMMUNITY

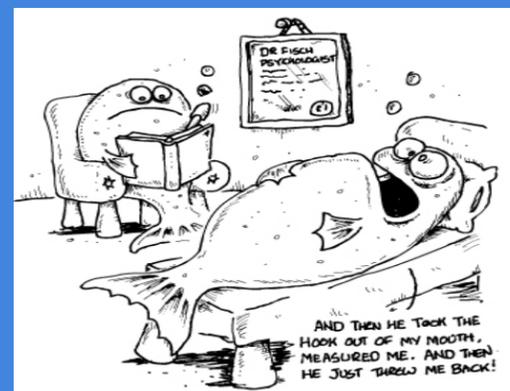
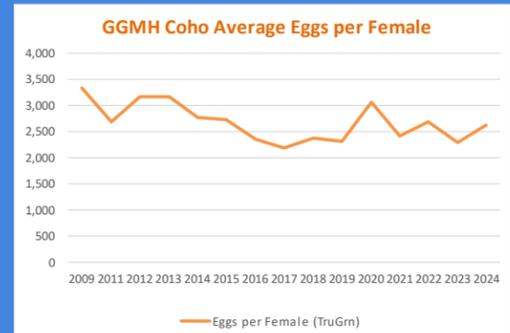


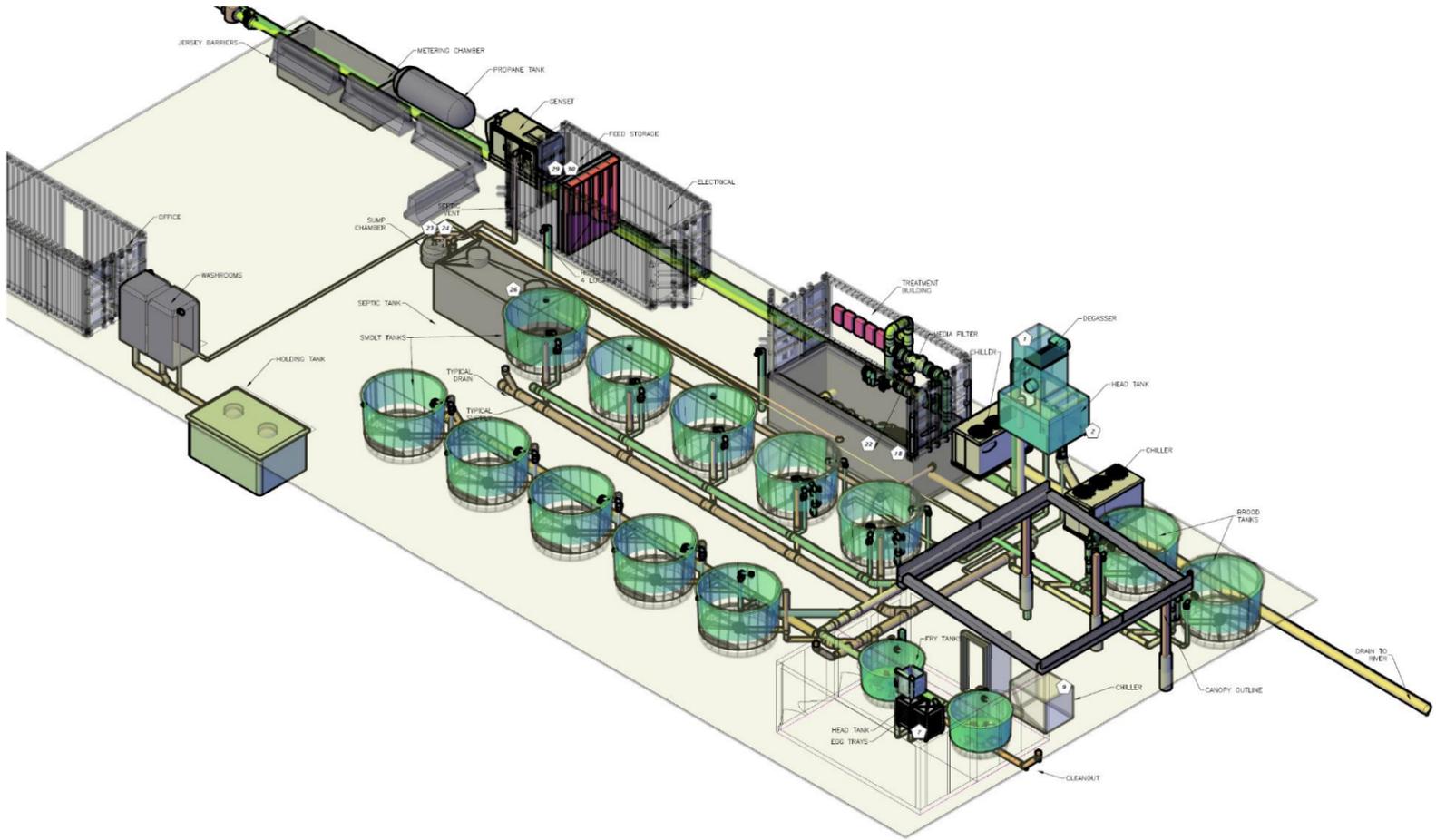
To the 14 Bi-Weekly Feeders, for your relentless daily dedication to rearing container maintenance and feeding the Fry.

To the Egg Pickers, Early Feeders, Clippers, Turbine Test Team, Broodstock Anglers, Site Maintenance Crew, Photographers, Special Project volunteers, Suppliers, Metro Vancouver, BC Hydro, KFN, and DFO

a **HUGE...**
THANK YOU ALL!

Fun Facts:





Above: Original drawing of the New kwikwəłəm Sockeye Hatchery to be located in the Coquitlam Watershed

Progress Update Excited for the return of...

“RED FISH UP the RIVER”

by Rodney Lee...Dec 26, 2024

2024 was a year of progress for the kwikwəłəm Sockeye Hatchery. A new name, facility completion and Coho egg incubation capped a year that also saw 13 Sockeye return to the Coquitlam Dam - all confirmed to be kwikwəłəm Sockeye.

At the start of November, the hatchery was given a name by the kwikwəłəm Community "kwikwəłəm tákʷ Hatchery" which translates to "Red Fish Up the River Return Home".

Hatchery construction restarted in earnest in late 2023 and continued through to facility completion and handover November 15, 2024.

For this initial startup and testing period, Coho eggs were brought into incubation on November 28, 2024. Looking ahead, these Coho will be reared at the kwikwəłəm tákʷ Hatchery, marked (adipose clip) and released to Cedar Creek by the end of June 2025. Once the Coho fry are released, the Hatchery will shift focus and readied to hold any returning Sockeye captured in the Grant's Tomb fish trap. Going forward in future years, the hatchery will only raise Sockeye.

Special thanks to the Grist Goesen Memorial Hatchery volunteers who's efforts have enabled the kwikwəłəm tákʷ Hatchery to get started with raising Coho as well as provide opportunities for kwikwəłəm Guardians and Staff to get hands-on experience with hatchery activities.

Rodney Lee
Project Coordinator, kwikwəłəm First Nation
kwikwəłəm tákʷ Hatchery



Middle Right: Completed Site.

Bottom Left to Right: Many thanks to Rodney, Fran, Hailey, Violet; the Group taking DNA, Measuring, Stripping Eggs and documenting information.

Miscellaneous

EVENT PICTURES

2024 Left to Right, Top to Bottom

- The Original GGM Hatchery and Today's Site
- Replacement of Oxygen Stripping Tower

- Installation of New 10' Tubs 3 and 4

- Installation of the new Outflow Shed
- Richard Chabot's family Friends from Quebec visiting GGMH

- Tysan (DFO) & Zach loading Coho Smolts for release
- Cathy (DFO) & Richard sorting broodstock

- Grace & Cathy (DFO) & Yin sorting broodstock
- Grace... soaking wet and still smiling!

- Vance... this is fun, and thanks for making new hanger hooks!
- Grace & Sandy...Stripping Eggs

- Males ready for DNA sampling, Measurement & Documenting
- Richard and Vance ... Stripping milt from males

- Tysan & Richard... "Look at this Big Boy"
- Richard & Grace...live releasing extra broodstock to spawn in Coquitlam River.

- The "War Room" ...Thanks to River Springs Mark Gibson, Andrea, Deanna, John, and GGMH members Doug and Dave for participating in egg takes...organizing the setup, and egg counts, a vital task requiring weighing and counting accuracy

- Mama bear watched as we put used brood fish out for her and cubs...she would venture down, grab a fish and take it across the road to her cubs...

