

Mainland Enhancement of Salmonoid Species Society

M.E.S.S.S. Report - Rotation 8
DFO Area 12 Stock Assessment 2024

Enumeration Period: November 1 - November 13, 2024

Stream Technicians: Ian Clevenger, Abby Tinsley, Chris Bennett

1. 2024 Stream Escapement and Biosample Data

Stream	Date m/d	PK	CM	CO	JK	SK/ MH	20 Min	Morts PK/CM/CO	Air Temp (°C)	H2O Temp (°C)	pH	DO mg/L
Wahkana	11/14	0	0	0	0	0	0	0/0/0	8.4	7.3	5.34	15.78
Hada	11/14	-	-	-	-	-	0	-	7.2	6.3	5.52	16.85
Viner	11/06	0	6/9	0	0	0	0	1/7/0	9.3	7.5	5.98	16.24
Shoal	11/07	0	0	0	0	0	0	0/2/0	9.0	7.9	5.32	15.37
Scott Cove	11/01	0	0	1	1	0/0	0	0/0/0	8.7	10.4	5.55	14.38
Embley	11/05	78/ 130	0	20/33	0	0	0	32/0/0	5.1	9.2	5.56	15.20
Carriden	11/05	0	0	2/3	0	0	0	1/0/0	6.8	9.3	6.14	13.24
Maple	11/02	0	0	0	0	0	0	0/0/0	7.8	7.1	5.04	15.75
Simoom	11/06	0	0	0	0	0	0	0/0/0	8.2	7.7	5.83	16.12
Gilford	10/29	-	-	-	-	-	0	-	7.5	9.1	5.51	15.10
Minihump	11/09	0	0	10/34	0	60/ 240	-	0/0/1	8.1	8.7	5.20	15.12
B Proctor	10/29	0	0	2/4	0	0	-	0/0/0	8.0	8.1	4.98	15.09
B Proctor	11/02	0	0	0	0	0	-	0/0/0	8.5	7.6	5.30	14.64
Mt Worthington	11/07	0	0	0	0	0	-	0/0/0	9.3	7.8	5.28	15.81
John Lewis	11/01	0	0	4/7	0	0	-	0/0/1	7.8	7.1	4.90	15.57

M.E.S.S.S. 2024 Salmon Enumeration Program

John Lewis	11/13	0	0	5/21	0	0	-	0/0/1	8.5	7.2	4.55	15.80
Loose	11/01	0	0	4/7	0	0	-	0/0/1	8.2	7.3	5.20	16.27
Loose	11/13	0	0	2/5	0	0	-	0/0/2	9.0	7.7	4.51	15.30
Connector	11/09	0	0	20/36	2	0	-	0/0/2	7.5	7.7	4.45	15.12
C Bennett	11/01	0	0	10/17	2	2	-	0/0/2	9.1	8.2	5.45	14.45
C Bennett	11/13	0	0	15/27	0	0	-	0/0/2	8.5	8.3	4.77	14.79

Table 1. Area 12 systems escapement and biosample data. Observed numbers (non-bold) represent salmon observed.

Bolded numbers represent total river estimate including jacks and morts.

Abbreviations: Pink Salmon (PK), Chum (CM), Coho (CO), Jacks (JK), Sockeye (Sk), 20 minute estuary survey (20 min)

1. Escapement Records for Rotation #8

Stream	2023			2022			2021					
	Date	PK	CM	CO	Date	PK	CM	CO	Date	PK	CM	CO
Wahkana	11/14	0/0	0/0	0/0	11/12	0/0	0/0	0/0	11/10	0/0	0/2	0/0
Hada	11/14	0/0	1/3	19/74	11/12	14/21	2/2	4/5	11/10	0/0	0/2	2/7
Viner	11/01	0/0	0/1	5/7	11/08	0/0	0/0	0/0	11/07	0/0	2/13	0/0
Shoal	11/07	0/0	0/1	0/0	11/06	0/0	0/0	0/0	11/12	0/0	0/3	0/0
Scott Cove	11/16	0/0	0/0	6/32	11/06	0/0	0/0	2/30	11/07	0/0	0/0	0/0
Embley	11/11	0/0	0/0	13/65	11/02	4/9	0/0	0/0	10/30	0/0	0/2	0/0
Carriden	10/18	0/0	0/0	0/0	10/18	0/0	0/0	0/0	10/30	0/0	0/0	0/0
Maple Cove	11/08	0/0	0/0	0/1	11/09	0/0	0/0	0/0	11/08	0/0	0/0	0/0
Gilford	10/25	0/0	0/0	0/0	10/20	0/0	0/0	0/0	11/08	0/0	0/0	0/0
Simoom	10/29	0/0	0/0	0/0	10/19	0/0	0/0	1/1	10/04	0/0	0/0	2/4
Minihump	11/08	347/ 408	0/0	7/10	11/07	2/44	0/0	0/0	11/11	0/0	0/0	2/8
Billy Proctor	11/07	0/0	0/0	12/14	11/09	0/0	0/0	0/3	11/12	0/0	0/0	30/48
Mount Worthington	11/07	0/0	0/0	2/3	11/11	0/0	0/0	0/0	11/12	0/0	0/0	0/0
John Lewis	11/09	0/0	0/0	0/0	11/11	0/0	0/0	0/0	11/11	0/0	0/0	5/9
Connector	11/08	0/0	0/0	1/2	11/11	27/46	0/0	0/0	11/12	1/3	0/0	0/2
Loose	11/09	0/0	0/0	0/1	11/07	0/0	0/0	0/0	11/11	0/0	0/0	0/3
Chris Bennett	11/09	0/0	0/0	0/0	11/07	0/0	0/0	0/0	11/11	0/0	0/0	9/21

M.E.S.S.S. 2024 Salmon Enumeration Program

Stream	2020				2019				2018			
	Date	PK	CM	CO	Date	PK	CM	CO	Date	PK	CM	CO
Wahkana	11/10	0/0	0/0	0/0	11/04	0/0	1/2	0/0	10/13	0/0	15/22	0/0
Hada	11/10	0/0	0/0	5/6	11/04	0/0	12/17	2/2	11/06	0/0	2/13	0/0
Viner	11/13	0/0	0/0	0/0	11/02	0/0	13/26	0/0	11/08	0/0	0/42	0/0
Shoal	11/09	0/0	0/0	0/0	11/03	0/0	0/0	0/0	10/16	0/0	9/24	0/0
Scott Cove	11/09	0/0	0/0	0/0	11/02	0/0	0/0	0/0	11/05	0/0	0/0	0/0
Embley	11/01	0/0	0/0	0/0	11/06	0/0	0/0	0/0	10/29	0/3	0/3	0/0
Carriden	11/01	0/0	0/0	0/0	11/06	0/0	0/0	0/0	10/29	0/0	0/0	0/0
Maple Cove	11/11	0/0	0/0	0/0	11/05	0/0	0/0	0/0	09/26	0/2	0/0	0/0
Gilford	11/11	0/0	0/0	0/0	90/30	0/0	0/0	0/0	11/17	0/0	0/0	0/0
Simoom	10/05	0/0	0/0	0/0	09/25	0/0	0/0	0/0	10/29	0/0	0/6	0/0
Minihump	11/01	0/16	0/0	0/0	11/03	59/110	0/0	0/0	11/09	0/2	0/0	0/0
Billy Proctor	11/11	0/0	0/0	0/0	11/15	0/0	0/0	0/0	11/17	0/0	0/0	0/2
Mount Worthington	11/11	0/0	0/0	0/0	11/16	0/0	0/0	0/0	11/17	0/0	0/0	0/0
John Lewis	11/12	0/0	0/0	0/0	11/05	0/0	0/0	1/1	11/16	0/0	0/0	0/0
Connector	10/27	0/0	0/0	0/0	11/03	40/57	0/0	0/0	11/16	0/0	0/0	4/8
Loose	11/12	0/0	0/0	0/0	11/05	0/0	0/0	0/0	11/16	0/0	0/0	1/2
Chris Bennett	11/12	0/0	0/0	1/1	11/05	0/0	0/0	2/3	11/09	1/2	0/0	0/0

Table 2 & 3. Escapement records by MESSS from past rotation 2 surveys spanning 2018-2023. Area 12 pink salmon spawn on a fixed two year cycle with a stronger even year, chum salmon run on a 3, 4 and 5 year cycle and coho salmon on a 3 year cycle generally. *Surveys taken from different rotation reports to provide a better representation based on more similar dates. Red text indicates escapement records for minihumps.

1. Rotation 8 Highlights

Weather:

- Daily precipitation, often moderate to intense, with occasional weather break.
- Delays and variable timing of surveys, planned around storms.
- Overcast skies led to lots of glare and low light, which made visibility poor at times.
- Continued snow in higher elevations, single digit air temperatures all rotation.

Notes:

- Elevated water levels in all streams, some sections unsurveyable, tributaries and braids surveyed when mainstem of streams blown out.
- Flows provided good fish passage in streams with impediments to fish movement.
- Redds seen, with fish likely spawning during elevated water levels.
- Increased numbers of coho spawners in all Scott Cove/Loose Lake Tributaries.

1. Stream Enumeration Notes

Hada River November 14, 2024

Enumerated by Ian Clevenger, Abby Tinsley



Photos 1 – High flows and rainbows at Hada, a poetic end to the stream enumeration season.

Estuary Survey

- No fish seen.
- Lots of gulls on the dock.
- Gorgeous day!

Stream Survey

- Unsurveyable due to significantly high water levels and flow.
- Non stop rain for several days pre-survey. We attempted to survey on a day with decreased water levels, the rain just kept coming.
- Stream temperature and water quality sample taken.

Wahkana Bay Creek November 14, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 2 - Dark water and fresh bear scat in Wahkana Bay Creek.

Estuary Survey

- No fish seen.

Stream Survey

- No fish seen.
- High water due to near constant rain in the days leading up to the survey.
- Good fish visibility.
- Spot checked the stream where spawning gravel was present.
- Fresh bear sign present.

Embley River November 5, 2024

Enumerated by Ian Clevenger, Abby Tinsley, Chris Bennett



Photo 3 - Coho (dark shapes mid image) holding just below the placed gravel.

Estuary Survey

- No schools of fish seen in estuary.

Stream Survey

- Small group of pinks seen spawning at beaver dam on placed gravel.
- Pinks and Coho seen spawning at upper gravel placement.
- Grizzly bear and cub seen feeding on fish at upper gravel placement.
- Lower water levels than the previous three surveys. Improved visibility.

Carriden Bay Creek November 5, 2024

Enumerated by Ian Clevenger, Abby Tinsley, Chris Bennett



Photo 4 – Coho action shot, holding and swimming above the biosampling pool.

Estuary Survey

- Little bird activity, no fish seen.

Stream Survey

- Continued high stream levels.
- Large sections of whitewater made surveying conditions poor.
- 2 coho seen holding near the gravel just past the biosample pool. Pink mort seen on the side of the pool.

Viner River November 6, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 5.1 – The first spawning reach of Viner river, just up from the estuary.

Estuary Survey

- Decrease in the amount of eagles and gulls seen, though both still present.

Stream Survey

- Water higher than we usually surveyed it at.
- Evidence of high flows recently, high flows likely difficult for spawning and post spawn fish to hold in.
- Few fish left in system.

Shoal Harbour Creek November 7, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 6- A suspected redd, upper right, likely spawned on by coho during higher flows this past week.

Estuary Survey

- No new fish seen moving into system.

Stream Survey

- No live fish seen.
- Improved visibility but water still dark.
- Log jams shifted with high water.

Scott Cove Creek November 01, 2024
Enumerated by Ian Clevenger, Abby Tinsley

(We forgot to take a picture this week. Sorry)

Stream Survey

- 1 coho and 1 jack seen jumping at the lower falls.
- Little activity observed at both falls as the coho spawn in the tributaries begins.

Maple Cove Creek November 02, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 8 - Water levels in the lower segment of Maple Cove Creek.

Estuary Survey

- No fish seen.

Stream Survey

- Stream returned to average flow and bank full (35%).
- Relatively good visibility for Maple Cove Creek.
- No coho observed.
- Salmon may be hiding in undercut banks/pools under log jams, or may be further up the stream with good passage over falls.
- 2 cutthroat trout seen holding on good spawning substrate.
- Multiple new windfallen trees across stream.

Simoom Sound Creek November 6, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 9 - Simoom Sound creek near where we saw coho in the last survey.

Estuary Survey

- No fish seen in the estuary.

Stream Survey

- One cutthroat trout seen.
- Clear water, levels slightly higher than previous survey.

Gilford Creek October 29, 2024

Enumerated by Ian Clevenger, Abby Tinsley

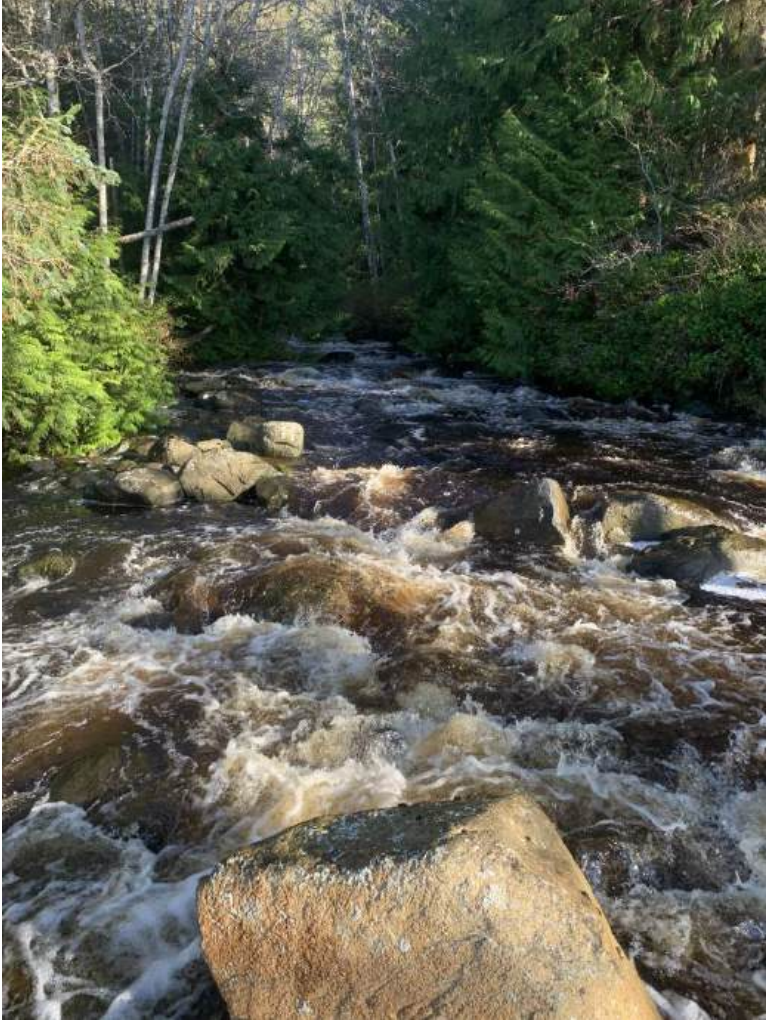


Photo 10 - High water levels at the mouth of Gilford Creek, leaving the system unsurveyable.

Estuary Survey

- No fish seen in the estuary.

Stream Survey

- Stream unsurveyable due to high water.
- Water quality sample done at old logging bridge crossing.

Minihump Creek November 9, 2024

Enumerated by Ian Clevenger, Abby Tinsley, Chris Bennett



Photo 11 - Minihump mort on the bank of Minihump Creek.

Stream Survey

- Very difficult surveying conditions due to low light and high, dark water
- Minihumps seen in one portion of stream, spawning on fine gravel.
- Coho seen throughout the system, including at forestry bridge, up near good spawning gravel and holding in pools throughout.
- One minihump mort found on stream bank.

Billy Proctor Creek October 29, November 02, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 12 - Abby surveying in the upper reaches of Billy Proctor Creek on 11/02.

Stream Survey 10/29

- 1 spawning pair seen.
- Multiple redds.

Stream Survey 11/02

- No fish seen spawning in creek.
- Rain needed to push fish into the stream from Brydee lake.

Connector Creek November 9, 2024

Enumerated by Ian Clevenger, Abby Tinsley, Chris Bennett



Photo 13 - Coho passing falls and paired up and spawning in Connector Creek.

Stream Survey

- Fish seen paired up and spawning throughout the upper reach, above the road crossing.
- Spawning primarily occurred on gravel placed by MESSS in previous years.
- All fish very healthy, little to no signs of wounds, fin damage or disease.
- Mort seen on road 300m from stream.

Loose Creek October 24, 2024

Enumerated by Ian Clevenger, Abby Tinsley, Chris Bennett



Photo 14 - Redds seen in Loose creek.

Stream Survey

- Mainstem too high to survey, side braid and lower tributary still surveyable
- Fish seen spawning in both side braid and tributary. Some morts seen, predated on by bears or birds.

John Lewis Creek November 01, 2024

Enumerated by Ian Clevenger, Abby Tinsley, Chris Bennett



Photos 15 - A suspected redd halfway between the road bridge and the lake, and creek walkers Ian and Chris by a large cedar in John Lewis Creek.

Stream Survey 11/01

- Coho seen spawning in lower 200m of stream.
- Lower OE due to deep pools, undercut banks, and logjams.

Stream Survey 11/13

- Coho seen spawning in lower 50m of stream. The fish spawning on a good looking gravel reach.
- Decreased surveyability due to increase in flows.

Mount Worthington Creek November 7, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 16 - A suspected redd (left side of image) in the lower portion of Mt Worthington Creek.

Stream Survey

- No fish seen in the system.
- 2 blockages in the first 400m likely causing impediments to fish movement.

Chris Bennett Creek November 01, November 13, 2024
Enumerated by Ian Clevenger, Abby Tinsley, Chris Bennett



Photos 17 - Four coho spawning under woody debris and a mort seen in Chris Bennett Creek.

Stream Survey 11/01

- Coho seen spawning in lower reach, near the lake.
- 4 Dolly Varden seen spawning in fine gravel in the upper segment.
- Fresh trash from loggers in the stream.
- Road recently graded, pushing alders and riparian veg down into stream.

Stream Survey 11/13

- Decent visibility in both segments.
- Spot sighted 2 coho in CBC02 (above road), did not resight on descent.
- Fresh morts spotted in CBC01.
- Increase in fish seen spawning in lower reach.