

## Mainland Enhancement of Salmonoid Species Society

M.E.S.S.S. Report - Rotation 7  
DFO Area 12 Stock Assessment 2024

Enumeration Period: October 17 - October 24, 2024

Stream Technicians: Ian Clevenger, Abby Tinsley

### 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
Hada	10/23	28/48	16/20	33/54	12	3/4	0	16/1/0	8.5	7.7	6.14	16.16
Wahkana	10/23	0	0	0	0	0	0	0/0/0	9.2	8.5	6.02	15.05
Viner	10/23	0	50/133	3/4	0	0	0	0/65/0	11.4	9.0	6.27	15.37
Shoal	10/24	0	7/11	1/2	0	0	0	0/13/0	7.2	8.9	5.39	15.08
Mt Worthington	10/24	0	0	0	0	0	0	0/0/0	8.0	8.2	5.81	15.81
Scott Cove	10/17	0	0	9	6	0	0	0/0/0	9.5	12.5	5.45	13.93
Maple	10/21	0	0	0	0	0	0	0/0/0	9.0	8.0	4.47	15.59
Carriden	10/22	0	0	0	0	0	0	0/0/0	8.5	11.4	6.28	12.72
Embley	10/22	0	0	0	0	0	0	4/0/0	8.8	12.0	6.20	13.14
Simoom	10/22	0	0	1/2	0	0	0	0/0/0	8.4	8.7	5.90	15.35
Minihump	10/24	0	0	1/3	0	500/ 1,250	-	0/0/0	8.5	10.3	5.32	14.95
Connector	10/24	0	0	0	1	0	-	0/0/1	8.5	7.7	4.87	14.47
Loose	10/24	0	0	4/7	1	0	-	0/0/0	9.2	8.1	5.20	16.45
John Lewis	10/20	0	0	0	0	0	-	0/0/0	10.2	9.0	4.77	15.17

Table 1. Area 12 systems escapement and biosample data. Observed numbers (non-bold) represent salmon observed. **Bolded** numbers represent estimates expanded factoring observer efficiency.

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

1. Escapement Records for Rotation #7

Stream	2023				2022				2021			
	Date	PK	CM	CO	Date	PK	CM	CO	Date	PK	CM	CO
Wahkana	10/30	0/0	0/0	0/0	10/31	0/0	0/0	0/0	10/29	0/0	0/3	0/0
Hada	10/30	2/2	18/21	55/68	10/31	45/80	9/18	1/2	10/29	0/0	0/0	0/0
Viner	10/29	0/0	0/0	21/34	10/26	0/0	0/8	1/3	10/25	0/0	3/18	0/0
Shoal	10/28	0/0	0/0	2/5	10/29	0/0	0/1	0/0	11/02	0/0	1/1	1/2
Scott Cove	10/25	0/0	0/0	0/0	10/26	0/0	0/0	24/205	10/25	0/0	0/0	0/0
Embley	10/29	0/0	0/0	0/0	10/23	80/111	0/0	15/34	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	10/26	0/0	0/0	0/0	10/28	0/0	0/0	0/0	10/26	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	10/31	1419 /2027	0/0	0/0	10/30	-	-	-	11/01	1,290/ 1,720	0/0	0/0
Mount Worthington	10/28	0/0	0/0	0/0	10/29	0/0	0/0	0/0	11/02	0/0	0/0	0/0
Connector	10/31	0/0	0/0	0/0	10/28	3/30	0/0	0/0	11/02	19/25	0/0	0/0
Loose	11/01	0/0	0/0	0/0	10/16	0/0	0/0	0/0	11/01	0/0	0/0	0/0
John Lewis	10/26	0/0	0/0	0/0	10/30	0/0	0/0	0/0	11/01	2/3	0/0	2/4

Stream	2020			2019			2018					
	Date	PK	CM	CO	Date	PK	CM	CO	Date	PK	CM	CO
Wahkana	10/28	0/0	0/0	0/0	10/23	0/0	0/0	0/0	10/13	0/0	15/22	0/0
Hada	10/28	0/0	0/0	0/0	10/23	0/0	10/26	0/0	10/23	14/47	26/145	3/6
Viner	11/02	0/0	1/3	0/0	10/20	0/0	2/31	0/0	10/26	0/0	55/ 1017	0/1
Shoal	10/25	0/0	0/0	0/1	10/22	0/0	0/7	0/0	10/16	0/0	9/24	0/0
Scott Cove	10/25	0/0	0/0	6/48	10/20	0/0	0/0	0/0	10/22	0/0	0/0	1/100
Embley	10/22	0/0	0/0	0/0	10/25	0/0	0/0	0/0	10/29	0/3	0/3	0/0
Carriden	10/22	0/0	0/0	0/0	10/25	0/0	0/0	0/0	10/29	0/0	0/0	0/0
Maple Cove	10/26	0/0	0/0	1/1	09/30	0/0	0/0	0/0	10/26	0/2	0/0	0/0
Simoom	10/05	0/0	0/0	0/0	09/25	0/0	0/0	0/0	09/29	0/0	0/6	0/0
Minihump	10/21	0/1	0/0	0/0	10/22	98/ 490	0/0	0/0	10/30	728/ 971	0/0	0/0
Mount Worthington	10/25	0/0	0/0	0/0	11/07	0/0	0/0	0/0	10/28	0/0	0/0	0/0
Connector	10/27	0/0	0/0	0/0	10/22	12/40	0/0	1/3	10/27	6/9	0/0	0/0
Loose	10/27	0/0	0/0	0/0	10/24	0/0	0/0	0/0	10/27	0/0	0/0	1/2
John Lewis	10/27	0/0	0/0	0/0	10/24	0/0	0/0	0/0	10/27	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 7 Highlights

### Weather:

- Large rain event (>60mm) on October 18, two day delay for stream levels to return to surveyable condition.
- Visibility improved as the week progressed.
- Snow appearing in higher elevations, single digit air temperatures all rotation.
- Clouds and overcast conditions often resulted in flat light or glare in creeks.

### Notes:

- High flows in most creeks due to the large rain event likely washed out many spawning and post spawn fish.
- High flows also provide improved fish passage in streams with impediments to fish movement.
- We are beginning to see coho spawning in the tributaries to Loose Lake on Gilford Island.

## 1. Stream Enumeration Notes

**Hada River** October 23, 2024

Enumerated by Ian Clevenger, Abby Tinsley



Photo 1 – Clear water and autumnal vibes in the Hada side channel.

### Estuary Survey

- No fish seen.

### River Survey

- Excellent surveying conditions compared to other streams, low clear water.
- Decrease in spawning and spawned out fish seen.
- Streambed movement and changes to general river morphology due to high flows.
- Coho still holding and not spawning.

**Wahkana Bay Creek** October 23, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 2 - Water levels in Wahkana Bay Creek.

Estuary Survey

- No fish seen.

River Survey

- No fish seen.
- Improved surveying conditions now that the system has flushed.
- High water mark from rain event increased flows 3ft (500%).

**Embley Creek** October 22, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 3 - Hauling out last of gravel addition bags (go Ian!)

Estuary Survey

- No schools of fish seen in estuary.

River Survey

- Slightly lower water levels than previous survey.
- Dead pinks encountered, washed up and dried on banks.
- Flat light and dark sections made for poor visibility.
- Removed last of gravel addition bags.

**Carriden Bay Creek** October 22, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 4 – Fast water throughout Carriden Bay Creek made for difficult wading and surveying.

Estuary Survey

- Little bird activity, no fish seen.

River Survey

- Continued high stream levels.
- Large sections of whitewater made surveying conditions poor.



**Viner River** October 23, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 5.1 – The biosample pool in Viner.



Photo 5.2 - A female chum spawning in Viner.

Estuary Survey

- Spawned out pink and chum seen in estuary.
- Large amount of eagles, ravens, crows and gulls eating salmon and salmon eggs.

River Survey

- Large decrease in numbers of chum seen in system.
- High water likely pushing post spawn fish out of the river.
- Fresh spawning fish seen in lower 300m of river.

**Shoal Harbour Creek** October 24, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 6- Water levels at the biosampling rock in Shoal Harbour..

Estuary Survey

- No new fish seen moving into system.
- One bald eagle eating fish remains where creek enters Shoal Harbour.

River Survey

- Chum largely spawned out and hiding in stream.
- One coho seen moving up lower part of Shoal.

**Scott Cove Creek** October 17, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 7– High water levels at the lower falls.

River Survey

- 9 adults and 6 jacks observed jumping at 1.5 kilometer falls during 20 minute jumper count.
- Decrease in fish activity at falls as the coho spawn in the tributaries begins.

**Maple Cove Creek** October 21, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 8 - High water marks showing where the stream levels the stream reached after last weeks rain event.

Estuary Survey

- No fish seen.

River Survey

- Continued high flows resulted in low survey visibility and confidence.
- High water mark was 3.5ft higher than regular flows (400% increase).
- Coho likely moving through system with ease.

**Simoom Sound Creek** October 22, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 9 - Spawning habitat in Simoom Sound Creek.

Estuary Survey

- No fish seen in the estuary.

River Survey

- Good survey visibility throughout system.
- One coho seen in upper section of stream.
- Two trout encountered downstream of coho.

**Minihump Creek** October 24, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 10 - Minihumps schooling and spawning in Minihump Creek.

River Survey

- No minihumps seen in first 300m of stream.
- High concentrations of minihumps spawning from 300m upstream of Loose Lake to the falls on Minihump creek.
- One coho with a beat up tail seen spawning on gravel just below the falls on Minihump creek.
- Higher water than last rotation made for decreased surveyability and observer efficiency.

**Connector Creek** October 24, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 11 - Coho mort in Connector Creek, found shortly after bald eagle flew away.

River Survey

- Jack coho seen at bottom of Connector creek where it meets Townee Lake.
- One pre spawn male mort found 200m upstream of road crossing. Likely killed by the eagle that was eating it.

**Loose Creek** October 24, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 12 - Redds and test digs in Loose Creek where the two coho and a jack were seen spawning.

River Survey

- Four coho and one jack seen spawning in left braid of stream. Two spawning groups, one being two adults and a jack, the other consisting of two adults.
- Multiple redds or test diggs seen near spawning coho.
- Loose lake backflooding the lower part of stream.



**John Lewis Creek** October 20, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 13 - John Lewis creek at the road crossing.

River Survey

- No fish seen in system.
- 3 significant large straining log jams made up of small woody debris, likely impeding fish movement.
- Loose lake backflooding the lower part of stream.

**Mount Worthington Creek** October 24, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 14 - One of the barriers to fish movement in Mt Worthington creek, this one being the lower of the two, located 150m upstream of the junction with Shoal Harbour Creek.

River Survey

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