

## Mainland Enhancement of Salmonoid Species Society

M.E.S.S.S. Report - Rotation 5  
DFO Area 12 Stock Assessment 2023

Enumeration Period: October 1-7, 2023

Stream Technicians: Ian Clevenger , Bogdan Kraft, Olivia Cornies, Charlotte Dawe, Mikaere Berryman-Kamp.

### 1. 2023 Stream Escapement and Biosample Data

Stream	Date MM.DD	PK	CM	CO	JK	SK/ MH	20 min	Morts PK/CM/CO	Air °C	H2O °C	pH	DO mg/L
Ahta (5)	10.05	1979/ <b>5281</b>	20/ <b>50</b>	15/ <b>38</b>	1	4/ <b>10</b>	0	111/13/0	17	12.4	7.44	14.74
Viner (5)	10.05	13/ <b>23</b>	56/ <b>101</b>	20/ <b>50</b>	6	1/ <b>2</b>	0	19/0/0	14.5	11.2	7.16	14.91
Shoal (5)	10.02	4/ <b>7</b>	18/ <b>29</b>	0	0	0	0	0/0/0	14.5	12.3	6.36	14.15
Scott Cove (5)	10.01	0	0	33/ <b>660</b>	10	0	0	0/0/0	11.5	13.9	6.60	13.55
Wahkana (5)	10.05	0	0	0	0	0	0	0/0/0	16	12.2	7.43	12.98
Maple (5)	10.03	0	0	2/ <b>3</b>	0	0	10	0/0/0	14	11.0	5.25	15.05
Carriden (5)	10.01	0	0	0	0	0	0	0/0/0	14	14.5	6.55	10.67
Embley (4)	10.02	0	7/ <b>11</b>	11/ <b>17</b>	0	0	0	0/0/0	12	14.7	6.52	13.90
Simoom (2)	10.07	0	0	0	0	0	1	0/0/0	14	11.5	7.67	15.01
Gilford (1)	10.02	0	0	9	0	0	0	0/0/0	14	12.9	6.30	14.01
Minihump (1)	10.07	0	0	0	0	35/ <b>58</b>	-	0/0/0	18	14.8	6.30	15.01

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 #1

Stream	2017				2018				2019			
	Date	Pink	Chum	Coho	Date	Pink	Chum	Coho	Date	Pink	Chum	Coho
Ahta	10/03	78/ 98	63/235	10/19	10/02	402/ 494	204/ 273	35/44	10/11	17/ 23	75/119	2-3
Viner	10/03	14/ 18	277/ 839	2/14	10/06	0/0	1609/ 2332	0/0	10/08	0/0	18/40	0/0
Shoal	10/07	0/0	0/16	0/0	10/05	0/0	18/47	0/0	10/09	0/0	0/1	0/0
Scott Cove	10/06	0/0	11/15	9/156	10/04	0/0	0/0	10/16 8	10/08	0/0	0/0	5/82
Wahkana	09/24	0/0	2/3	0/0	09/18	0/1	7/12	0/1	10/11	0/0	0/0	0/0
Embley	10/05	0/0	15/25	1/6	10/08	2/8	0/0	0/0	10/12	0/0	0/0	0/0
Maple	09/26	0/0	0/0	0/0	09/26	0/2	0/0	0/0	09/30	0/0	0/0	0/0
Carriden	09/16	0/0	0/0	0/0	09/29	0/0	0/0	0/0	10/12	0/0	0/0	0/0
Simoom	09/15	0/0	0/0	0/0	09/29	0/0	0/0	0/0	09/25	0/0	0/0	0/0
Minihump	10/06	14/ 35	0/0	0/0	10/04	290/ 414	0/0	0/0	10/09	238/ 476	0/0	0/0
Gilford	10/07	0/0	0/0	0/1	09/26	0/0	0/0	2/51	10/10	0/0	0/0	0/0

Stream	2020				2021				2022			
	Date	Pink	Chum	Coho	Date	Pink	Chum	Coho	Date	Pink	Chum	Coho
Ahta	10/05	61/82	4-5	3-5	10/04	57/ 221	27/13 2	1/2	10/03	5531/ 6570	34/53	5/7
Viner	10/06	0/0	12-23	0/0	10/05	5/8	334/ 440	0/0	10/06	2/2	17/35	1/1
Shoal	10/01	0/0	1-3	0/0	10/07	0/0	68/ 176	7/13	10/04	0/0	1/11	0/0
Scott Cove	10/06	0/0	0/0	1-8	10/02	0/0	0/0	4/37	10/04	0/0	0/0	1/16
Wahkana	10/05	0/0	0/0	0/0	10/04	0/0	1/2	0/0	10/03	0/0	0/0	0/0
Embley	10/09	0/0	0/0	0/0	10/03	0/0	0/0	0/0	10/02	200/ 212	0/0	7/15
Maple	10/07	0/0	0/0	0/0	10/07	0/1	0/0	0/0	10/05	0/0	0/0	0/0
Carriden	10/09	0/0	0/0	0/0	10/03	0/0	0/0	0/0	10/08	0/0	0/0	0/0
Simoom	10/05	0/0	0/0	0/0	10/04	0/0	0/0	2/4	10/08	0/0	0/0	0/0
Minihump	10/07	835/10 45	0/0	0/1	10/08	763/1, 272	0/0	0/0	10/04	0/0	0/0	0/0
Gilford	09/23	0/0	0/0	0/0	10/02	0/0	0/0	0/0	10/07	1-1	0/0	8-26

Table 2 & 3. Escapement records by MESSS from past rotation 2 surveys spanning 2016-2021. 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.

## 1. Rotation 4 Highlights

Weather:

- Recent storm provided increase in flows, new wind throw across creeks and roads.
- Fair weather during surveys, low precipitation, good light.

Water Levels/Quality:

- Continued cooling of stream temperatures and stabilization of flows.

Visibility:

- Good visibility across all streams as water levels stabilize.

Notes:

- Continued movement of fish into Scott Cove creek
- High occurrence of spawning occurring in streams with fish, chum, pinks spawning at high rate.
- Bears seen in Gilford, Shoal, Ahta River
- First count of the season for Gilford and Minihump Creek

1. Stream Enumeration Notes

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## **Ahta/Hada**

October 5, 2023

Enumerated by Ian Clevenger, Charlotte Dawe



Photo 1 – Water levels in the Ahta Side channel.

### Estuary Survey

- 0 jumpers seen in bay.
- 4 seals seen, 2 immature bald eagles

### River

- Good counting conditions in entire stream other than upper segment.
  - Unable to cross near falls in order to count falls pool.
  - Continued spawning of pinks, chum, sockeye.
  - Grizzly encountered near start of segment 2
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## **Viner River**

October 5, 2023

Enumerated by Ian Clevenger, Charlotte Dawe



Photo 2 – The lower stretch of Viner, chums spawning throughout.

Estuary Survey

- 0 Jumpers.
- 150 gulls, 50 ducks.
- Fresh grizzly bear sign.

River

- Chums seen spawning throughout first segment.
  - Coho observed in a pool with fresh looking chum at top of second segment.
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**Shoal Harbour Creek**

October 2, 2023



Enumerated by Ian Clevenger, Bogdan Kraft



Photo 3- A chum, likely predated on by a bird, on the banks of shoal harbour creek.

#### Estuary Survey

- No fish seen.
- Extremely high tide (18ft at time of survey).

#### River

- Good visibility in stream with chum seen spawning in majority of lower river.
  - Northern Goshawk observed at first tributary split.
  - One grizzly bear encountered, stream side, napping.
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**Scott Cove Creek**

October 1, 2023

Enumerated by Ian Clevenger



Photo 4 – Water levels at the lower falls on Scott Cove creek, same location where 20 min jumper survey occurs.

#### Estuary Survey

- Fish: 0 jumpers.
- 3 seals in water, 20+ on boom sticks.

#### River

- Moderate levels of activity at both falls, consistent jumping with a third of fish making the leap.
  - Notes: Scott Cove surveys are more beneficial for presence/absence data than population estimates because of how little of the system we are able to survey. Our numbers are largely based on jumper counts. Carrington Bridge was also assessed.
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### **Wahkana Bay Creek**

Enumerated by Ian Clevenger, Charlotte Dawe

October 5, 2023





Photo 5– Improved flow and visibility on the middle section of Wahkana creek.

Estuary Survey

- No jumpers seen.
- Tens of thousands of moon jellies seen, dozens of lions mane jellies.

River

- Improved water levels, better visibility than previous surveys.
  - New wind throw in creek.
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**Maple Creek**

Enumerated by Ian Clevenger, Olivia Cornies

October 3, 2023

Estuary Survey

- 10 Jumpers seen.
- Gulls and Geese present in estuary.

River

- First count with fish seen.
- No pinks observed but two coho seen at segment 1/2 split.

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**Carriden Creek**

October 1, 2023

Enumerated by Ian Clevenger, Bogdan Kraft, Olivia Cornies



Photo 6 – Flow reaching across the banks of lower Carriden Creek and scales found in the stream.

Estuary Survey

- 0 jumpers
- No seals, sign of eagles or bears

River

- No fish seen.



- Salmon scales seen in creek.
- Increased flow due to recent rains.

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## **Simoom Sound Creek**

Sept 22, 2023

Enumerated by Ian Clevenger, Mikaere Berrryman-Kamp



Photo 7 – Simoom Sound Creek just below the falls.

### Estuary Survey

- 1 jumper during survey, 1 seen post.

### River

- No fish seen.
- Adequate water levels for fish movement.

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## **Embley Creek**

October 1, 2023

Enumerated by Ian Clevenger, Bogdan Kraft, Olivia Cornies  
Estuary Survey  
-0 jumpers seen.

River

- More coho and fresh chum seen.
- Areas where gravel placements occurred were heavily dug out and spawned on.
- Fish congregating in reaches where gravel placements occurred.

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**Gilford**

October 2, 2023

Enumerated by Ian Clevenger, Bogdan Kraft



Photo 8 – Step pool section of Simoom Sound creek

Estuary Survey

- 0 jumpers seen.
- Bear scat seen.

River

- One coho seen holding in deep pool. Poor visibility overall in deep pools.
  - Saw black bear and cub seen halfway up segment 2.
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## **Minihump creek**

Enumerated by Ian Clevenger, Mikaere Berrryman-Kamp

October 7, 2023



Photo 9 – Minihumps seen starting to create redds and spawn. One minihump seen center photo.

### River

- First spawners of season seen. Some fish in post spawn condition.
- No herons or mergansers seen predating on fish at time of survey.