

# Mainland Enhancement of Salmonoid Species Society

M.E.S.S.S. Report - Rotation 4  
 DFO Area 12 Stock Assessment 2024

Enumeration Period: September 16 - 21, 2024  
Stream Technicians: Ian Clevenger, Abby Tinsley

## 1. 2024 Stream Escapement and Biosample Data

Stream	Date m.dd	PK	CM	CO	JK	SK/ MH	20 Min	Morts PK/CM/CO	Air Temp (°C)	H2O Temp (°C)	pH	DO mg/L
Hada	9/16	17,406 <b>/19,611</b>	438/ <b>489</b>	50/75	7	9/14	70	130/54/0	15	12.0	6.19	13.55
Wahkana	9/16	0	5/8	0	0	0	0	0/0/0	15	12.2	6.30	12.20
Viner	9/19	281/ <b>366</b>	1297/ <b>1689</b>	11/16	0	2/3	500	27/68/0	16	11.7	6.32	13.86
Shoal	9/18	2/3	185/ <b>285</b>	2/3	0	0	0	0/34/0	16	13.1	5.84	13.67
Scott Cove	9/18	0	0	33	27	0	0	0/0/0	14	16.7	5.84	12.26
Maple	9/18	4/7	0	0	0	0	0	1/0/0	14	12.3	5.49	13.93
Carriden	9/17	0	0	0	0	0	0	0/0/0	13	17.2	6.17	9.40
Embley	9/17	143/ <b>419</b>	37/93	0/0	0	0	0	1/0/0	14	16.1	5.67	11.98
Gilford	9/21	20/49	1/2	4/10	0	0	0	1/0/0	15	-	-	-

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 #4

Stream	2023			2022			2021					
	Date	PK	CM	CO	Date	PK	CM	CO	Date	PK	CM	CO
<b>Hada</b>	<b>09/20</b>	6846/ 10676	49/ 81	27/45	<b>09/21</b>	9901/ 11325	69/97	13/ 130	<b>09/19</b>	46/ 210	27/110	0/0
<b>Viner</b>	<b>09/21</b>	34/76	15/ 25	0	<b>09/22</b>	1/1	4/9	0/0	<b>09/22</b>	2/3	91/ 131	0/0
<b>Shoal</b>	<b>09/19</b>	2/4	4/7	0	<b>09/20</b>	0/0	0/0	2/3	<b>09/24</b>	0/0	92/ 128	7/13
<b>Scott Cove</b>	<b>09/19</b>	0	0	16/96	<b>09/20</b>	0/0	0/0	12/ 80	<b>09/25</b>	0/0	0/0	3/24
<b>Wahkana</b>	<b>09/20</b>	0	0	0	<b>09/21</b>	0/0	0/0	0/0	<b>09/19</b>	0/0	0/0	0/0
<b>Embley</b>	<b>09/17</b>	1/2	2/3	8/ 15	<b>09/23</b>	200/ 211	0/0	5/17	<b>09/23</b>	0/0	4/8	1/4
<b>Maple</b>	<b>09/21</b>	0	0	0	<b>09/24</b>	0/0	0/0	0/0	<b>09/25</b>	0/0	0/0	0/0
<b>Carriden</b>	<b>09/22</b>	0	0	0	<b>09/26</b>	0/0	0/0	0/0	<b>09/23</b>	0/0	0/0	0/0
<b>Gilford</b>	<b>10/02</b>	0	0	0	<b>10/02</b>	1/1	0/0	8/26	<b>09/14</b>	0/0	0/0	0/0

Stream	2020			2019			2018					
	Date	PK	CM	CO	Date	PK	CM	CO	Date	PK	CM	CO
Hada	09/17	307/ 392	10/14	9/12	09/15	56/ 282	24/6 1	11/ 22	09/18	3129/ 3687	239/ 328	21/ 29
Viner	09/22	3/4	38/55	0/0	09/14	5/7	17/ 25	0/0	09/25	0/0	1250/ 1567	1/3
Shoal	09/16	0/0	0/1	2/4	09/13	0/0	0/0	0/0	09/23	0/0	42/ 63	0/0
Scott Cove	09/17	0/0	0/0	6/67	09/14	0/0	0/0	4/31	09/23	0/0	0/0	17/ 129
Wahkana	09/17	0/0	0/0	0/0	09/14	0/0	1/1	0/0	09/18	0/1	7/12	0/1
Embley	09/25	0/0	0/0	0/0	09/16	0/0	1/2	0/0	09/28	7/10	5/8	0/0
Maple	09/23	0/0	0/0	0/0	09/17	0/0	0/0	0/0	09/14	2/4	0/0	0/0
Carriden	09/25	0/0	0/0	0/0	09/12	0/0	0/0	0/0	09/29	0/0	0/0	0/0
Gilford	09/23	0/0	0/0	0/0	09/17	0/00/	0/0	0/0	09/14	0/0	0/0	10/47

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.

## 1. Rotation 4 Highlights

Weather:

- Hada/Wahkana - mild weather, sunny.
- Embley/Carriden - rain throughout surveys.
- Maple/Shoal Harbour/Scott Cove - mild weather, no rain.
- Viner - mild weather, a bit of rain.
- Gilford - heavy rain throughout survey.

Water Levels/Quality:

- Water higher due to recent rain. Chum using high stream flows to spawn.

Notes:

- Pink and chum spawning throughout most creeks.

## 1. Stream Enumeration Notes

**Hada River** September 16, 2024

Enumerated by Ian Clevenger, Abby Tinsley



Photo 1.1 – Hada Valley Creek (where large school of salmon was seen).



Photo 1.2 - Level of water at falls in Hada River.

### Estuary Survey

- Pink, coho, and chums seen by Hada Valley Creek estuary.

### River Survey

- Good visibility in all reaches.
- Difficult to differentiate species in large pools/schools.
- Highest count of pink/chum this season.



**Wahkana Bay Creek** September 16, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 2 - Spawning chum in Wahkana Bay Creek.

Estuary Survey

- 40 coho/chum seen at stream mouth.
- Low tide.

River Survey

- 5 chums observed in Wahkana Bay Creek.
- Chums seen in shallow areas.
- Continued low visibility and dark water.

**Embley Creek** September 17, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 3- Poor visibility in Embley Creek.

Estuary Survey

- 1 bald eagle.
- 1 harbour seal.

River Survey

- Fish observed in dark pools throughout stream.
- Lots of fish seen, but indistinguishable at species level.
- Visibility was limited due to flat light and rain disturbance on surface.
- Embley 02 was surveyed for 100m, survey stopped due to grizzly bear and cub on path.



**Carriden Creek** September 17, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 4 – Water levels in Carriden Creek.

Estuary Survey

- 2 harbour seals.
- Many gulls.

River Survey

- No sign of fish or morts seen in previous weeks.
- Flat light made for poor visibility.
- Water levels up due to rain.

**Viner River** September 19, 2024  
Enumerated by Abby Tinsley, Ian Clevenger



Photo 5.1 – Chum salmon spawning in Viner River (far left).



Photo 5.2 - Ian and the M.E.S.S.S boat at high tide in Viner River.

Estuary Survey

- 2 schools of 250-300 fish.
  - 90% chum, 10% coho.
- Spawned out pink and chum morts in estuary.

River Survey

- Pink and chum redds seen all throughout the river.
- Large numbers appear to be spawning.



**Shoal Harbour Creek** September 18, 2024  
Enumerated by Ian Clevenger, Abby Tinsley

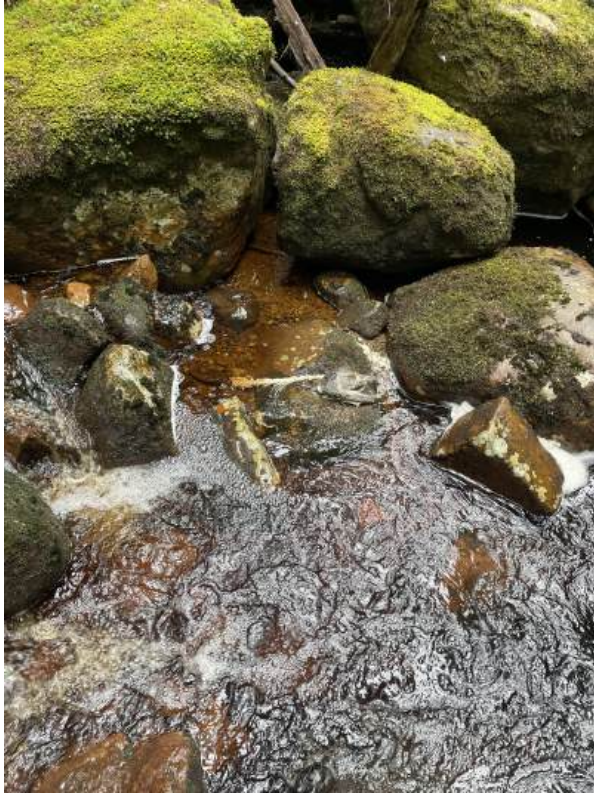


Photo 6- Live and dead fish in Shoal Harbour Creek..

Estuary Survey

- 0 Fish seen.
- Chums seen close to estuary.

River Survey

- Majority of chums observed in bottom of first segment.
- 50% of chum spawning, 50% moving upstream.
- Pinks spawning.

**Scott Cove Creek** September 18, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 7– Coho jumping at 1.5 kilometer falls (Reach 2) where a majority of the coho were observed.

River Survey

- 33 coho and 27 jacks observed jumping between both falls.
- Majority of jumpers observed at 1.5 kilometer falls (Reach 2).
- Fish observed moving up first falls (Reach 1) without jumping.
- The falls jumper count is more of a presence absence survey than a population estimate.

**Maple Creek** September 18, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 8 - Two pink salmon in Maple Cove Creek.

Estuary Survey

- 0 Fish seen.
- Low tide.

River Survey

- 4 live and 1 dead pink salmon seen in lower part of stream (Reach 1).
- Mediocre visibility due to low light and stream flow.



**Gilford Creek** September 21, 2024  
Enumerated by Ian Clevenger, Abby Tinsley



Photo 9 - Deep dark pools in the lower part of Gilford Creek.

Estuary Survey

- 1 black bear on shore.

River Survey

- One male chum seen low in system.
- Pinks spawning and moving throughout creek, observed in lower reaches up to logging road bridge.
- Coho encountered holding in deep pools.
- Dark, high water decreased stream surveyability.