

Mainland Enhancement of Salmonoid Species Society

M.E.S.S.S. Report - Rotation 3
DFO Area 12 Stock Assessment 2024

Enumeration Period: September 6-9, 2024
Stream Technicians: Ian Clevenger, Abby Tinsley

1. 2024 Stream Escapement and Biosample Data

Stream	Date mm.dd	PK	CM	CO	JK	SK/ MH	20 Min	Morts PK/CM/CO	Air Temp (°C)	H2O Temp (°C)	pH	DO mg/L
Hada	9/06	14,173 /20,878	282/ 393	20/ 29	2	11/ 18	50	86/30/0	15	13.2	6.35	12.79
Wahkana	9/06	1	0	0	0	0	0	0/0/0	15	13.4	6.32	12.27
Viner	9/08	273/ 414	188/ 323	3/6	1	3/4	70	10/44/0	17	13.2	6.60	13.55
Shoal	9/07	11/20	108/ 210	0/0	0	0	0	0/0/0	17	14.1	6.31	12.46
Scott Cove	9/07	0	0	27	7	0	0	0/0/0	18	19.1	5.77	11.62
Maple	9/07	1/1	0	0	0	0	0	0/0/0	17	13.5	5.14	12.90
Carriden	9/09	1/2	0	0	0	0	0	0/0/0	17	18.4	6.56	9.40
Embley	9/09	1174/ 1883	9/14	9/18	2	0	70	1/0/0	17	17.1	6.67	11.09

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

2023					2022				2021			
Stream	Date	PK	CM	CO	Date	PK	CM	CO	Date	PK	CM	CO
Hada	09/08	4031/ 5425	21 /27	27/37	09/10	8826/ 1143 9	55/74	120/1 74	09/10	484/ 511	115/ 122	0/0
Viner	09/10	28/38	0	0	09/08	1/1	13/17	0/0	09/12	3/4	40/ 57	0/0
Shoal	09/07	0	0	0	09/07	0/0	0/0	0/0	09/12	0/0	58/84	0/0
Scott Cove	09/07	0	0	0	09/08	0/0	0/0	8/38	09/12	0/0	0/0	27/218
Wahkana	09/08	0	0	0	09/10	0/0	0/0	0/0	09/07	0/0	0/0	0/0
Embley	09/17	1/2	2/3	8/ 15	09/03	51/64	0/0	0/0	09/13	3/6	3/6	0/0
Maple	09/11	0	0	0	09/11	0/0	0/0	0/0	09/14	0/0	0/0	0/0
Carriden	09/09	0	0	0	09/12	0/0	0/0	0/0	09/13	0/0	0/0	0/0

2020					2019				2018			
Stream	Date	PK	CM	CO	Date	PK	CM	CO	Date	PK	CM	CO
Hada	09/10	178/2 30	14/19	8/13	09/03	289/3 63	43/5 4	2/4	09/03	1924/ 2043	62/ 69	6/9
Viner	09/07	0/0	5/10	0/0	09/05	2/2	2/3	0/0	09/03	0/0	0/0	1/4
Shoal	09/06	0/0	2/3	0/0	09/05	0/0	0/0	0/0	09/01	0/0	0/0	0/0
Scott Cove	09/06	0/0	0/0	5/43	09/06	0/0	0/0	2/25	09/01	0/0	0/0	76/ 143
Wahkana	09/10	0/0	0/0	0/0	09/03	0/0	1/1	03.0 9.19	09/05	0/0	0/0	0/0
Embley	09/10	31/77	0/0	3/7	09/07	0/0	8/13	07.0 9.19	09/04	17/ 27	0/0	0/0

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

Maple	09/08	1/2	0/0	0/0	09/17	0/0	0/0	0/0	09/14	2/4	0/0	0/0
Carriden	09/09	0/0	0/0	0/0	09/07	0/0	0/0	0/0	09/02	0/0	0/0	0/0

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 2 Highlights

Weather:

- Overcast, sunny afternoons, no rain.

Water Levels/Quality:

- Low and dropping water levels during rotation
- Clear water and good visibility in all streams.

Notes:

- Chums spawning in Shoal, Hada and Viner
- Pinks spawning in Hada
- Increased predation and carcasses encountered, likely due to lower water levels

1. Stream Enumeration Notes

Hada River September 6, 2024 Enumerated by Ian Clevenger, Abby Tinsley



Photo 1 – Salmon schooling under log (where chinook was seen).



Photo 2 - Water levels in Reach 2 of Hada River.

River Survey

- Lowered and clear water made for good surveying conditions.
- Large amount of pinks seen made differentiating species difficult.
- Pinks and chum seen spawning. One chinook seen.

Viner River September 8, 2024 Enumerated by Abby Tinsley, Ian Clevenger



Photo 3 – Dead chum in Viner River.

Estuary Survey

- 2 Jumpers.
- 100-200 chum seen in estuary between Hada and Hada Valley creek.

River Survey

- Pink redds seen, large amount appear to have spawned.
- Chums seen paired up and spawning
- Many fish still seen holding in deep pools.

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



Photo 4- Dead chum and bear prints (in estuary) in Shoal Harbour Creek.

Estuary Survey

- 2 jumpers

River Survey

- Large amounts of bear predation in areas with high chum concentration.
- Many chum stuck below major log jam, possible that chum may have restricted access to upper pools.
- Approximately five dead chum found in log jam, likely stuck in debris.

Scott Cove Creek September 7, 2024 Enumerated by Ian Clevenger, Abby Tinsley



Photo 5– 1.5 kilometer falls (Reach 2) where many of the coho were observed jumping.

Estuary Survey

- 3 jumpers seen.
- 1 seal seen.

River Survey

- 27 adult and 7 jack coho seen jumping in 20 mins.
- Both falls surveyed with similar amounts of fish seen jumping at both sites.
- The falls jumper count is more of a presence absence survey than a population estimate.



Photo 6 - One pink salmon in Maple Cove Creek.

River Survey

- One pink seen in lower half of first reach.

Carriden Creek September 9, 2024 Enumerated by Ian Clevenger, Abby Tinsley

Photo 7 – Pinks seen holding below a stick jam. The jam was recently formed and partially cleared with intent for fish passage.

Estuary Survey

- No jumpers seen.

River Survey

- One pink seen above where fish were seen last week.
- No sign of morts or last weeks fish, though bear tracks were seen all throughout stream.



Photo 8- Beginning of second reach of Embley Creek.

Estuary Survey

- 40 pinks and approx 10 chum seen schooling in the estuary.
- No seals seen.

River Survey

- Lots of fish observed schooling and holding in the river.
- Mixed schools of pinks, chum and coho.
- Fish seen further upstream than previous surveys.



Photo 9- Falls at the top of second reach in Wahkana Bay Creek.

Estuary Survey

- No fish or seals seen in estuary.

River Survey

- Continued low visibility and poor surveying conditions.