

Mainland Enhancement of Salmonoid Species Society

M.E.S.S.S. Report - Rotation 6
DFO Area 12 Stock Assessment 2024

Enumeration Period: October 6 - October 13, 2024

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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	10/12	1,111/ 1531	44/ 83	44/ 58	0	4/5	0	134/27/0	10.1	9.1	6.05	15.35
Wahkana	10/12	-	-	-	-	-	-	0/0/0	-	-	-	-
Viner	10/09	9/ 13	1672/ 2864	0	0	0	2	13/458/0	10.8	10.0	7.20	14.95
Shoal	10/11	0/0	207/ 311	2/3	0	0	0	0/286/0	11	9.8	-	14.80
Scott Cove	10/06	0	0	41	7	0	0	0/0/0	12	13.3	7.63	13.60
Maple	10/06	0	0	0	0	0	0	0/0/0	12	10.2	6.69	14.85
Carriden	10/10	5/ 18	0	0	0	0	0	1/0/0	9.2	12.6	6.56-	11.95
Embley	10/10	2/ 20	0	2/ 20	0	0	0	0/0/0	10.1	13.2	6.38	12.82
Simoom	10/12	3/4	0	1/1	0	0	0	0/0/0	12	10.2	5.77	14.90
Minihump	10/13	0	0	0	0	516/ 737	-	0/0/0	18	11.3	5.36	14.35
Connector	10/06	0	0	0	0	2	-	0/0/0	13	10.0	8.01	x
Billy Proctor	10/06	0	0	0	0	0	-	0/0/0	13	10.0	8.24	14.56

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 #6

Stream	2023				2022				2021			
	Date	PK	CM	CO	Date	PK	CM	CO	Date	PK	CM	CO
Hada	10/19	1/10	12/53	16/85	10/17	1362/ 1833	18/35	21/43	10/13	2/4	12/59	0/0
Viner	10/16	1/2	14/46	4/12	10/18	2/4	7/27	0/0	10/14	0/0	53/102	2/10
Shoal	10/16	0/0	0/7	0/0	10/15	0/1	0/35	0/2	10/18	0/0	0/42	0/0
Scott Cove	10/13	0/0	0/0	13/ 54	10/15	0/0	0/1	0/0	10/16	0/0	0/0	0/1
Wahkana	10/19	0/0	0/0	0/0	10/17	0/0	0/0	0/0	10/13	0/0	5/8	0/0
Embley	10/18	0/0	1/2	0/0	10/13	205/ 261	0/0	7/14	10/03	0/0	0/0	0/0
Maple	10/13	0/0	0/0	0/0	10/16	0/0	0/0	0/0	10/16	0/0	0/0	0/0
Carriden	10/18	0/0	0/0	0/0	10/18	0/0	0/0	0/0	10/03	0/0	0/0	0/0
Simoom	10/7	0/0	0/0	0/0	10/19	0/0	0/0	1/1	10/04	0/0	0/0	2/4
Minihump	10/15	2171/ 3340	0/0	0/0	10/15	291/ 582	0/0	0/0	10/19	572/ 1,271	0/0	0/1
Connector	10/14	5/7	0/0	0/0	10/16	20/50	0/0	0/0	10/18	7/28	0/0	0/0
Billy Proctor	10/26	0/0	0/0	0/0	10/28	0/0	0/0	1/1	10/26	0/0	0/0	0/1

Stream	2020			2019			2018					
	Date	PK	CM	CO	Date	PK	CM	CO	Date	PK	CM	CO
Hada	10/20	1/2	0/0	0/0	10/11	17/23	75/ 119	2/3	10/13	81/ 111	113/ 239	8/27
Viner	10/21	0/0	2/5	0/0	10/08	0/0	18/ 40	0/0	10/13	0/0	15/22	0/0
Shoal	10/15	0/0	0/0	0/0	10/09	0/0	0/1	0/0	10/16	0/0	9/24	0/0
Scott Cove	10/15	0/0	0/0	3/24	10/08	0/0	0/0	5/82	10/15	0/0	0/0	1/100
Wahkana	10/20	0/0	0/1	0/0	10/11	0/0	0/0	0/0	10/13	0/0	15/22	0/0
Embley	10/22	0/0	0/0	0/0	10/12	0/0	0/0	0/0	10/19	2/21	1/13	0/0
Maple	10/19	0/0	0/0	0/0	09/17	0/0	0/0	0/0	09/26	0/2	0/0	0/0
Carriden	10/22	0/0	0/0	0/0	11/06	0/0	0/0	0/0	10/29	0/0	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	10/7	835/ 1045	0/0	0/1	10/22	98/ 490	0/0	0/0	10/14	494/ 706	0/0	0/0
Connector	10/07	0/0	0/0	0/0	10/22	12/40	0/0	1/3	10/16	17/21	0/0	0/0
Billy Proctor	10/26	0/0	0/0	0/3	11/15	0/0	0/0	0/0	10/30	0/0	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 6 Highlights

Weather:

- Large rain event (>60mm) on second day of rotation, two day delay for stream levels to return to surveyable condition.
- Surveying conditions improved as the week progressed.
- Sun and minimal clouds from the 11th onwards made for improved visibility in many streams.

Notes:

- Viner river surveyed from upper most access to estuary (5km).
- Minihump, Billy Proctor and Connector surveyed for the first time this season.
- First pinks seen in Simoom Sound creek since 2015.
- No survey done in Wahkana Bay creek due to fresh sign (scrape + tracks) of the cougar that attacked a dog Oct 4.

1. Stream Enumeration Notes

Hada River October 12, 2024

Enumerated by Ian Clevenger, Abby Tinsley



Photo 1.1 – Clear water conditions and sun in Hada.



Photo 1.2 - New braiding in the sidechannel of Hada.

Estuary Survey

- No fish seen.
- 1 seal seen resting on a floating log.

River Survey

- Excellent surveying conditions, low clear water and sun.
- Pinks, chum seen spawning and post spawn, coho largely holding in pools.
- Sockeye spawning.

Wahkana Bay Creek October 12, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 2 - Fresh cougar prints along the Wahkana Bay Creek trail.

Estuary Survey

- No fish seen.

River Survey

- Fresh cougar sign seen, no survey done.

Embley Creek October 10, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 3- High water flows at the Embley beaver dam, water surpassed the banks due to recent rains.

Estuary Survey

- No schools of fish seen in estuary

River Survey

- First and second segment surveyed up to river bend/habitat change.
- Very high water, over bankful, made for poor surveying conditions with few fish seen.

Carriden Bay Creek October 10, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 4 – Salmon operculum found on bank of Carriden Bay Creek

Estuary Survey

- Gulls seen by stream mouth.

River Survey

- Stream levels increased due to recent rains.
- Fish seen holding out of main flows, in lower and middle sections of the stream.

Viner River October 9, 2024
Enumerated by Abby Tinsley, Ian Clevenger



Photo 5 – Chum salmon spawning in Viner River.

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

- Entire system surveyed from upper most accessible reach.
- Chum seen high in the river spawning in groups.
- Majority of chum seen paired up on redds.

Shoal Harbour Creek October 11, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 6- MESSS and DFO StAD technicians joint surveying Shoal harbour creek.

Estuary Survey

- Chum seen moving into stream.

River Survey

- Most chum spawning higher in the system.
- Increased flows improving access to spawning gravel.
- Mt Worthington tributary and uppermost segment surveyed.

Scott Cove Creek October 6, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 7– High water levels at the lower falls.

River Survey

- 40 adults and 7 jacks observed jumping at 1.5 kilometer falls during 20 minute jumper count.
- 1 adult observed jumping at first falls during 20 minute jumper count.
- Large amounts of fish staging and moving successfully up past 1.5km falls.

Maple Cove Creek October 6, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 8 - Abby peering into a dark logjam in Maple Cove creek, looking for spawning pinks or coho moving up the system.

Estuary Survey

- 1 Bald eagle seen.
- No fish seen.

River Survey

- High flows made for poor surveying conditions anywhere the depth exceeded 0.5m
- Coho likely beginning to move up through the system as high water reduces barriers to movement.

Minihump Creek October 3, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 9 - Minihumps spawning in the tailout of a run in the appropriately named Minihump creek.

River Survey

- Large congregations and schools of spawning minihumps present.
- Kingfishers and Great Blue Herons present, likely preying on Minihumps.

Simoom Sound Creek October 12, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 10 - A small falls and woody debris in Simoom Sound Creek.

Estuary Survey

- One seal seen. No fish seen in the estuary.

River Survey

- Three pinks observed in lower third of stream, staging to spawn.
- One large coho seen near suitable spawning gravel, fish seen in spawning colours.

Billy Proctor Creek October 6, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 11 - Billy Proctor creek running through the skunk cabbage lowlands, just before the swamp.

River Survey

- No fish seen.
- Enough water to survey, this system typically dries up between periods of rainfall.
- Majority of stream surveyed with good clarity due to shallow depth.

Connector Creek October 6, 2024
Enumerated by Ian Clevenger, Abby Tinsley



Photo 12 - Very high water in Connector creek, reaching bankfull flows

River Survey

- Two minihumps seen on spawning gravel just above Townie Lake.
- Very poor surveying conditions due to high flows, very dark water and low light.