

Hatchery Effectiveness Review

REVIEW AND ASSESSMENT OF ENHANCEMENT FOR REBUILDING

SUPPLEMENTAL INFORMATION



Photo credit: Eiko Jones

Prepared by Andrew Rosenberger

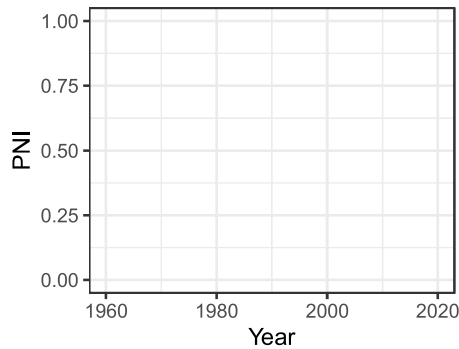
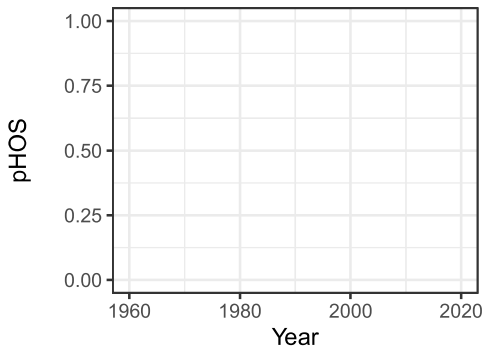
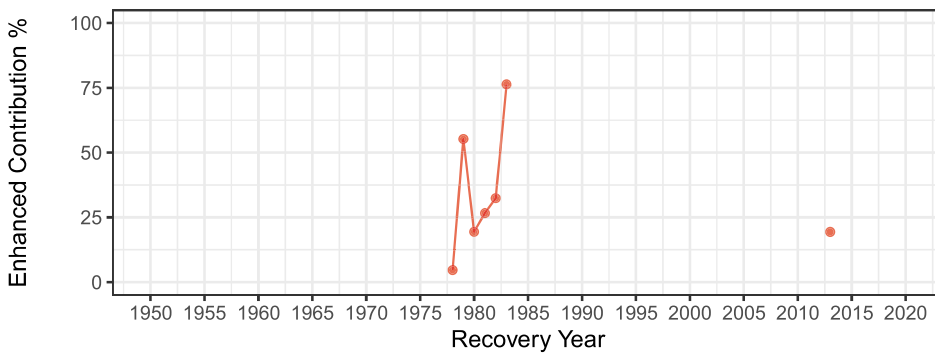
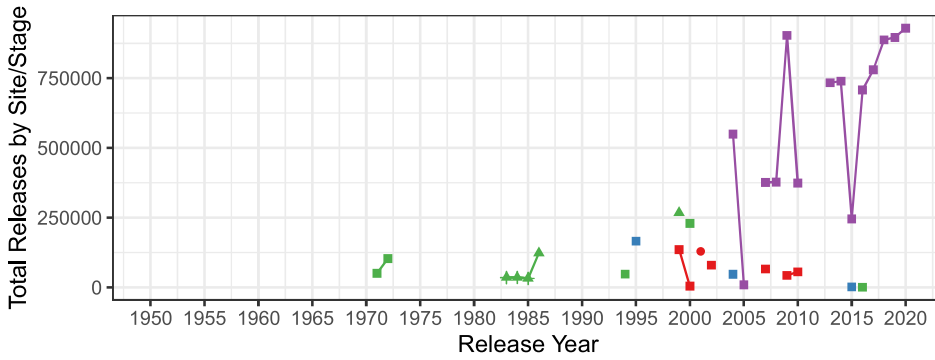
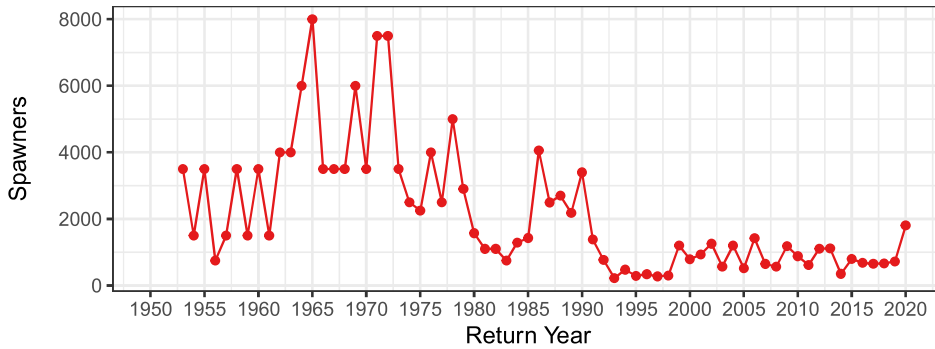
May 2023



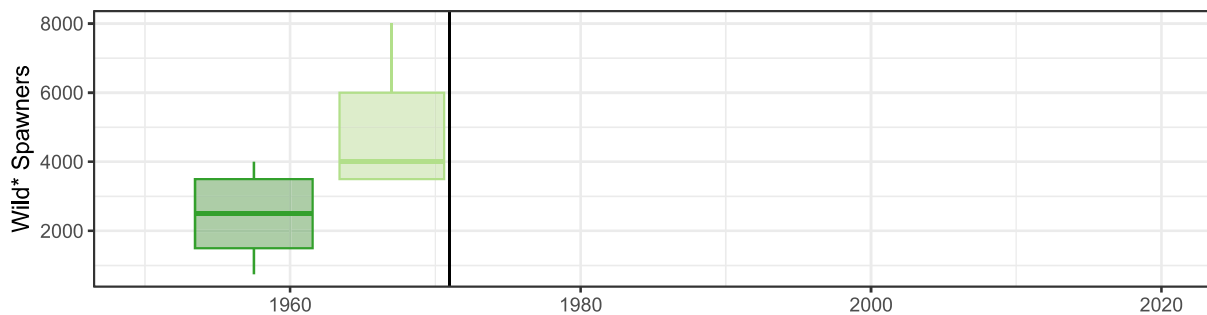
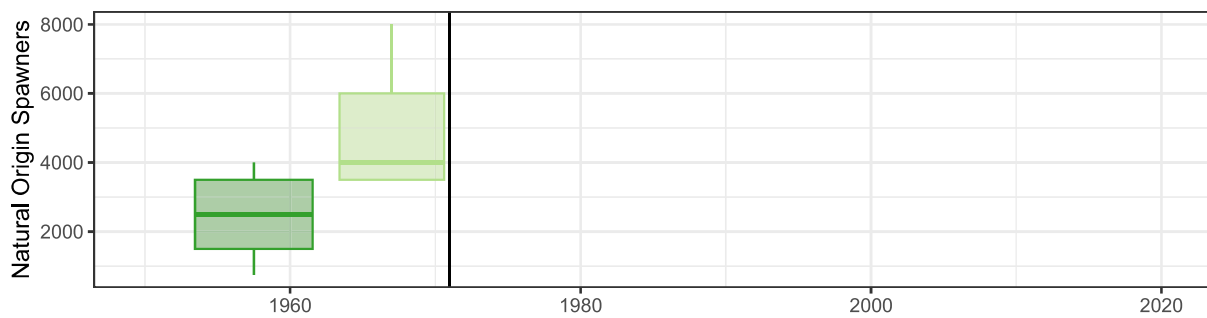
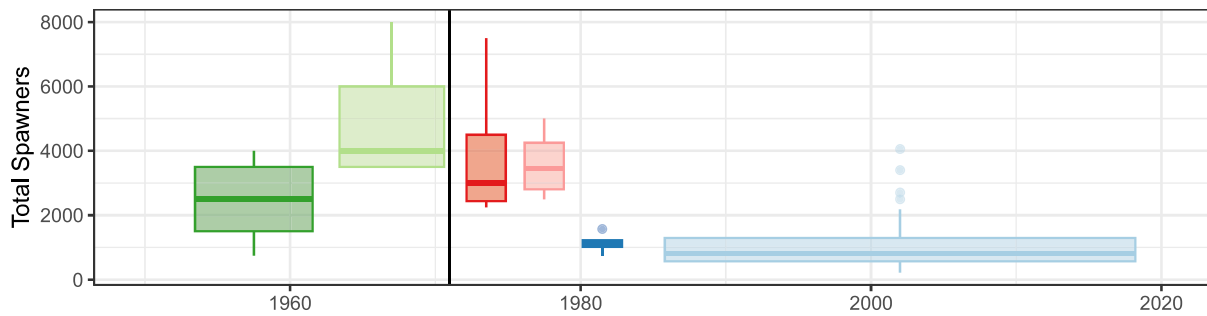
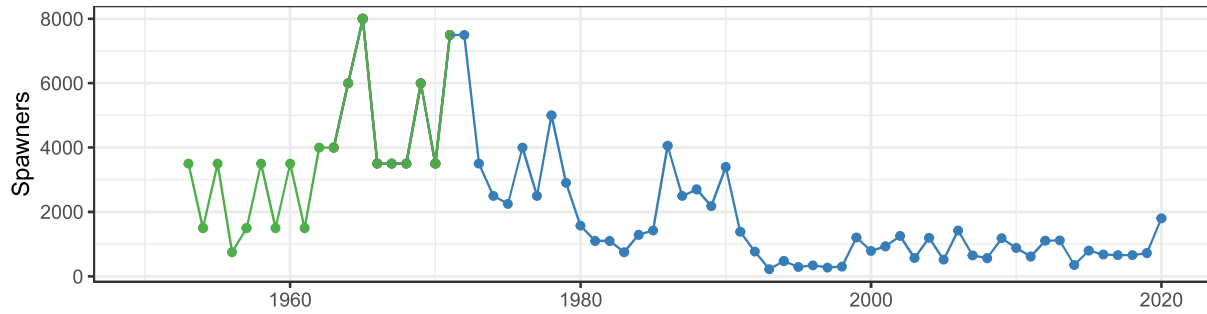
**PACIFIC SALMON
FOUNDATION**

PACIFIC SALMON FOUNDATION
1682 W 7TH AVE
VANCOUVER, BC, V6J 4S6

Campbell River (ECVI)
EAST VANCOUVER ISLAND-NORTH_FA_0.x



Total Spawners, Natural Origin Spawners, and Wild Spawners
 CAMPBELL RIVER (ECVI)



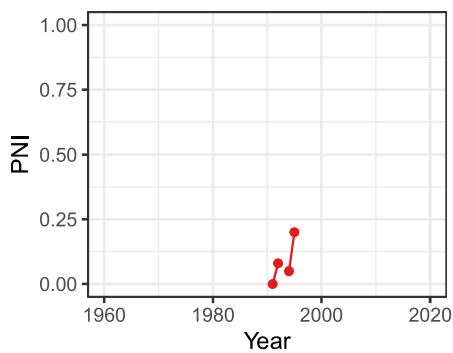
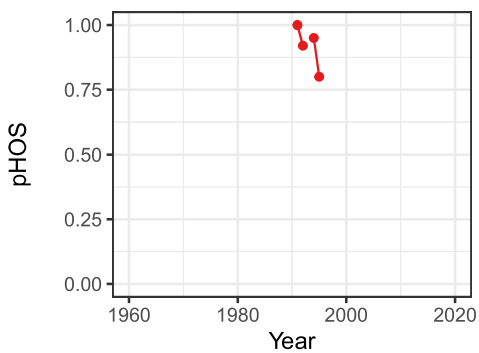
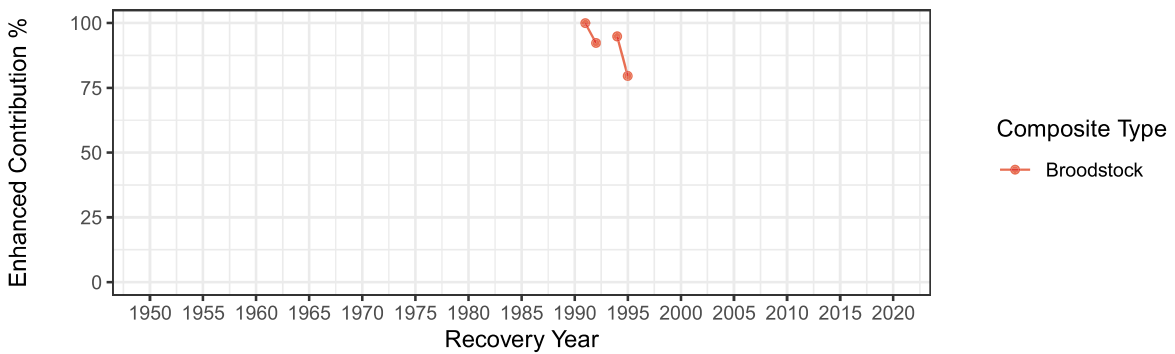
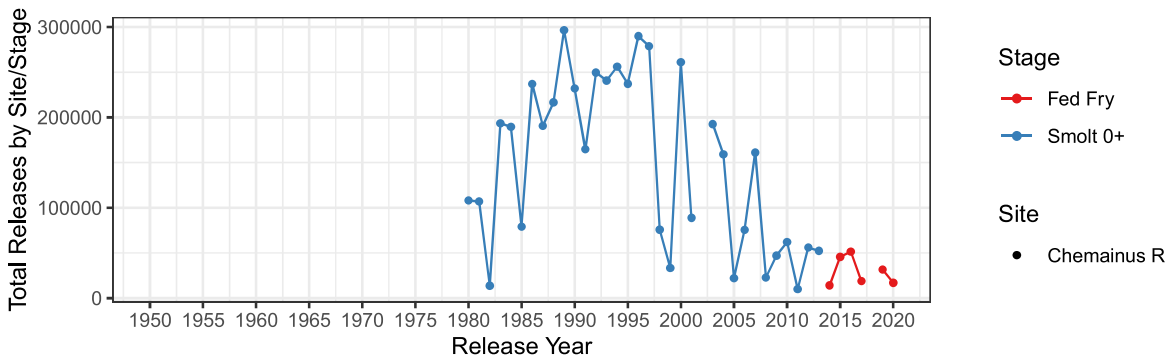
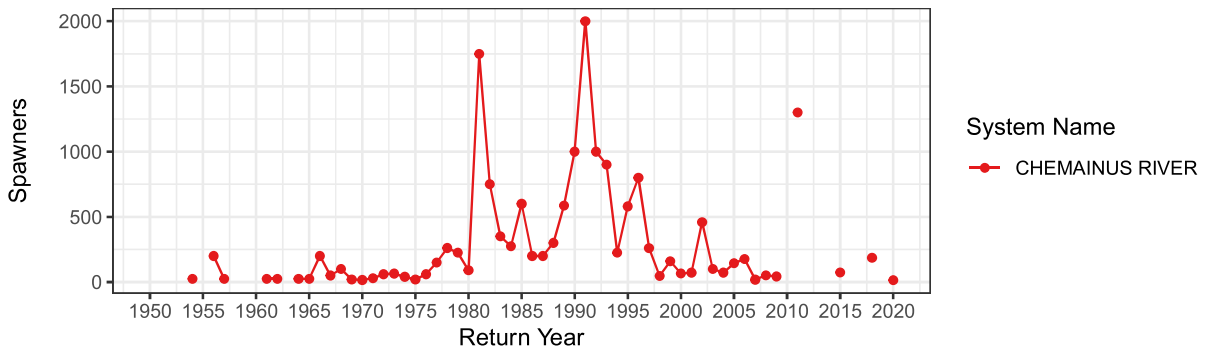
Spawners — Natural Origin — Total — Wild

Period

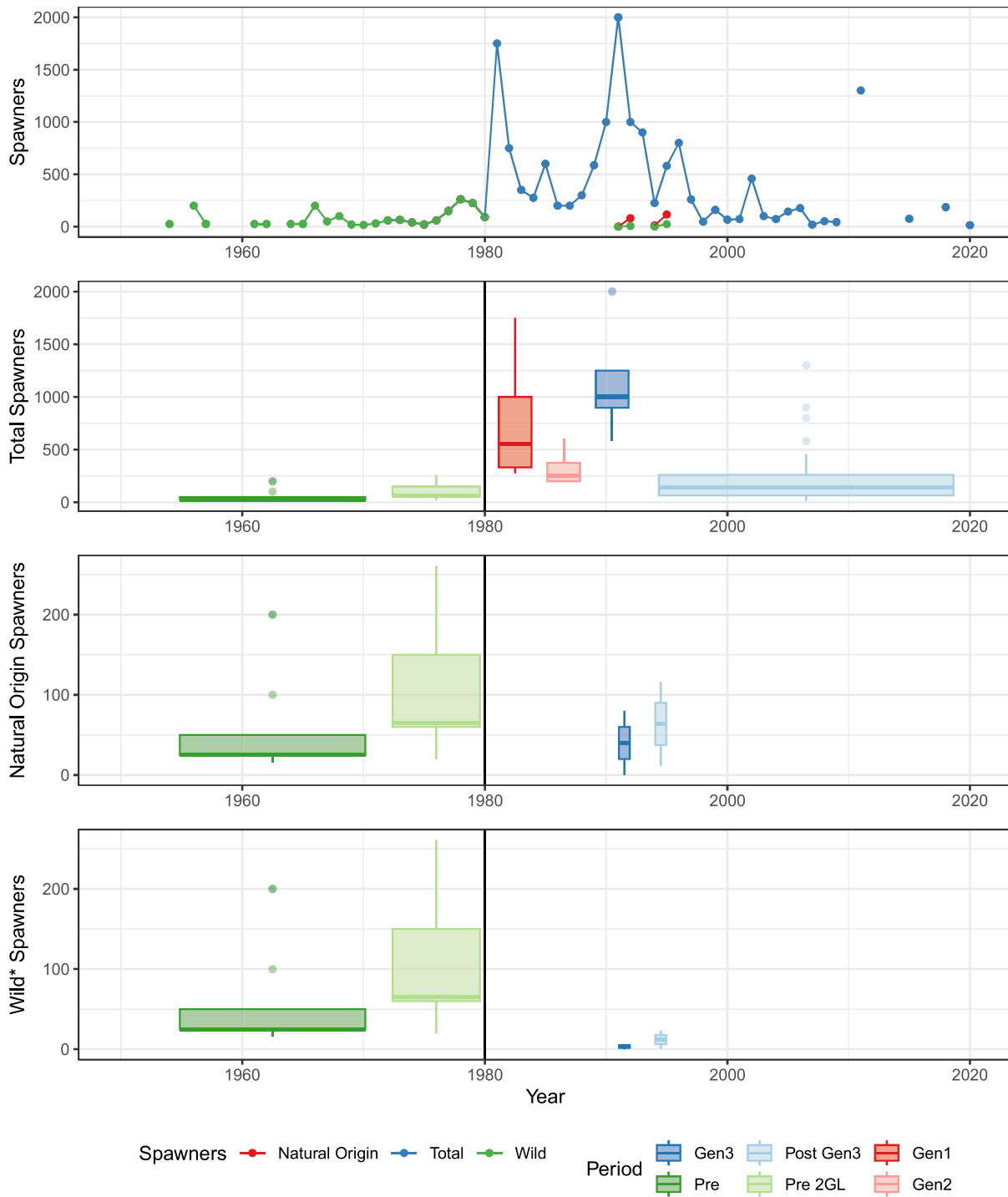
Gen3	Post Gen3	Gen1
Pre	Pre 2GL	Gen2

Chemainus River (ECVI)

EAST VANCOUVER ISLAND-NANAIMO & CHEMAINUS_FA_0.x

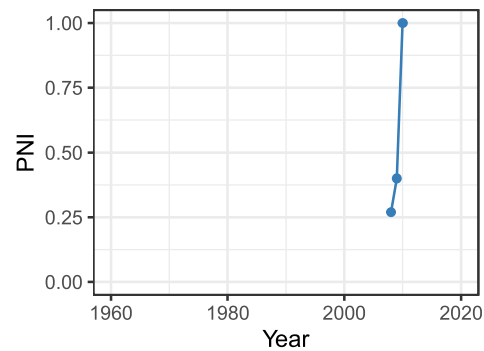
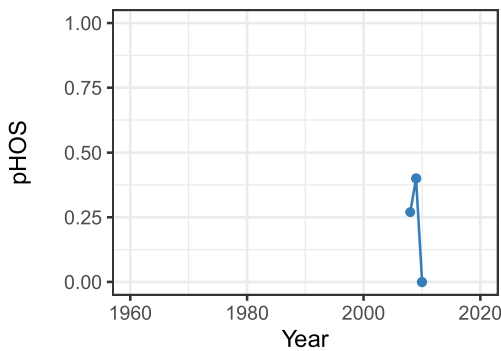
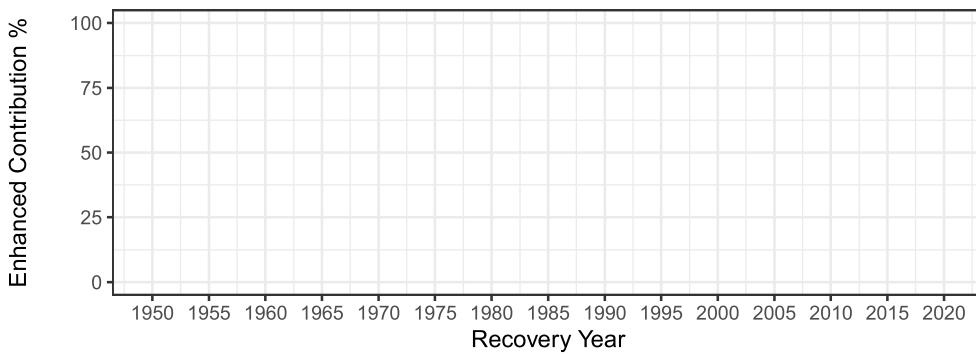
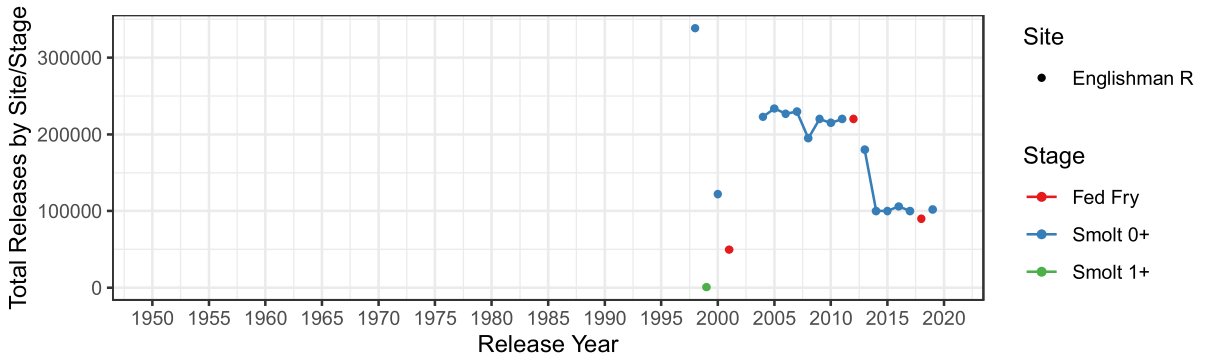
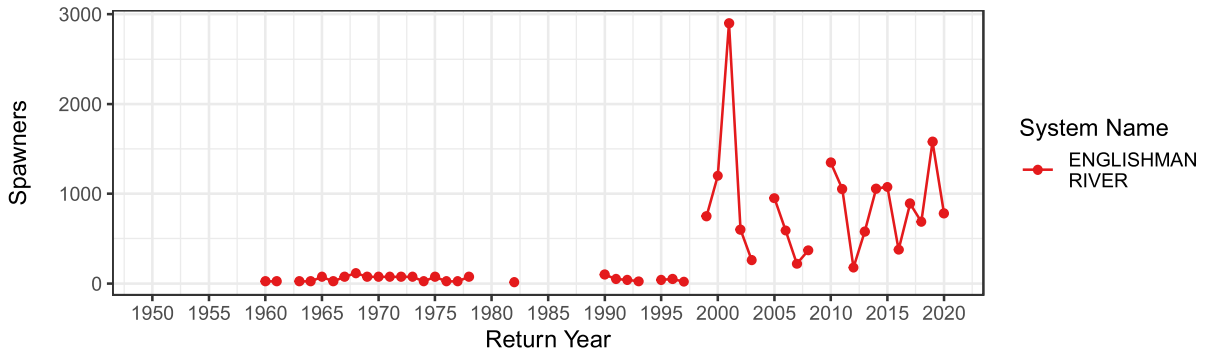


Total Spawners, Natural Origin Spawners, and Wild Spawners
CHEMAINUS RIVER (ECVI)



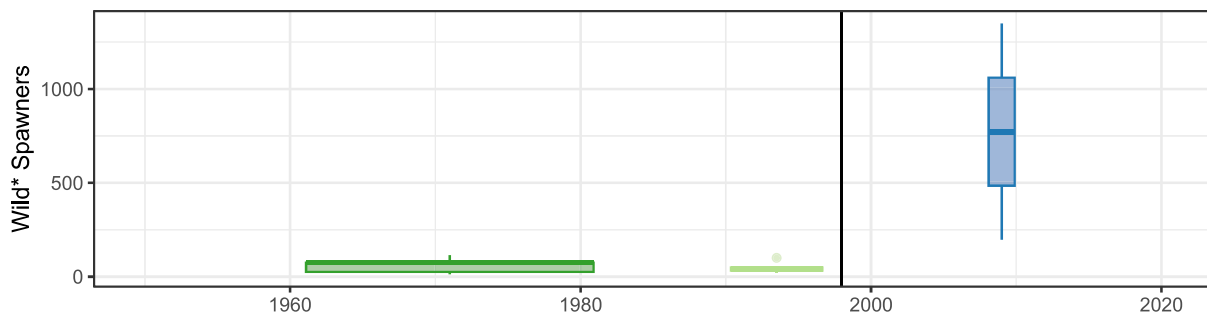
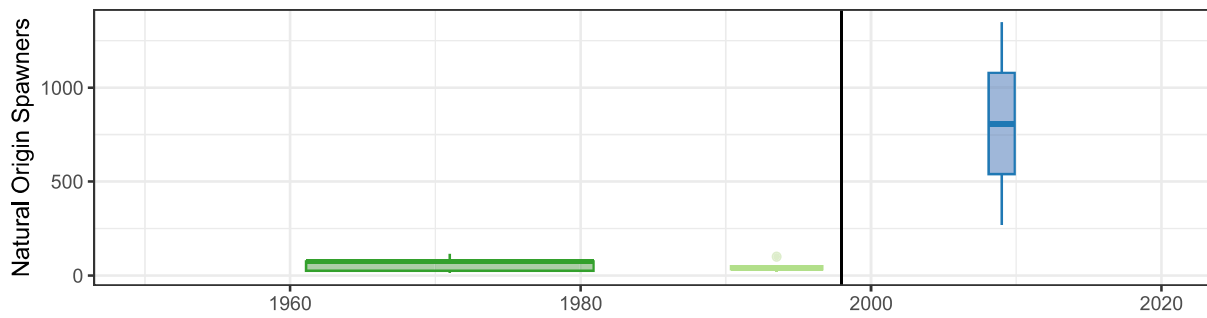
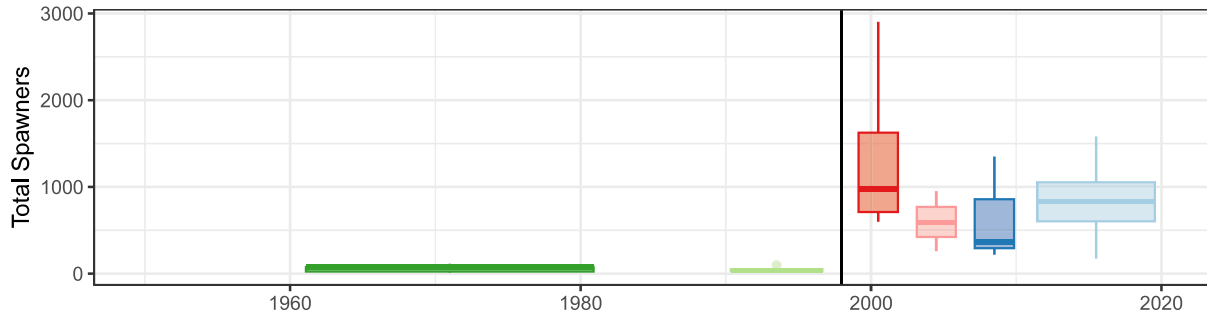
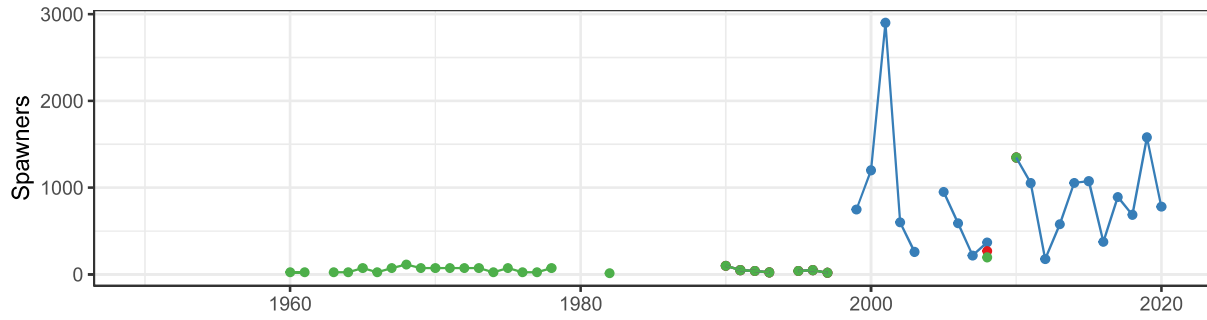
Englishman River (ECVI)

EAST VANCOUVER ISLAND-QUALICUM & PUNTLEDGE_FA_0.x



Mark Type
 CWT
 Thermal

Total Spawners, Natural Origin Spawners, and Wild Spawners
 ENGLISHMAN RIVER (ECVI)

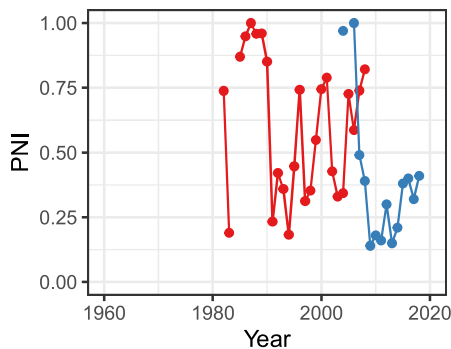
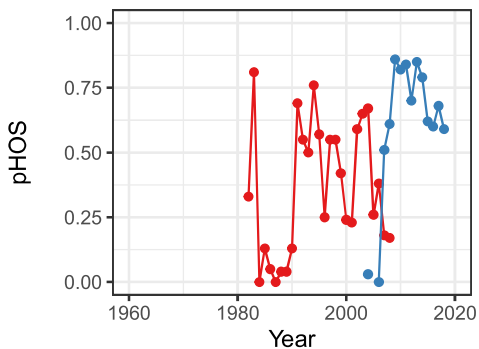
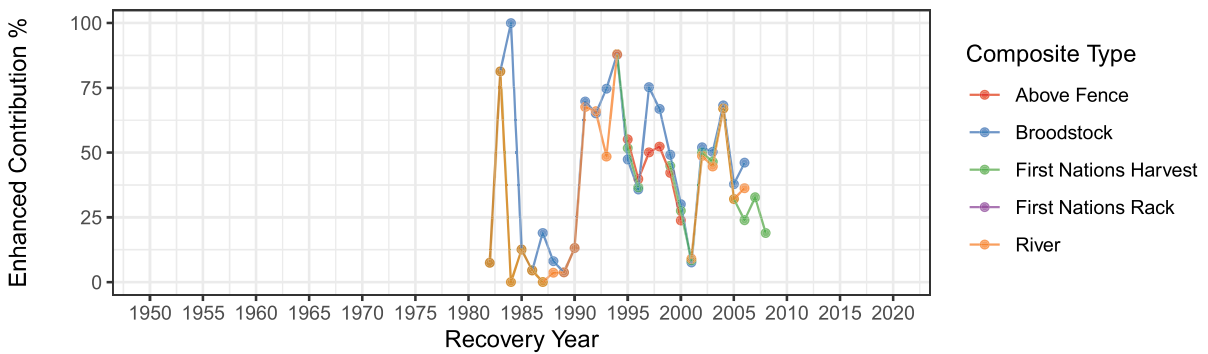
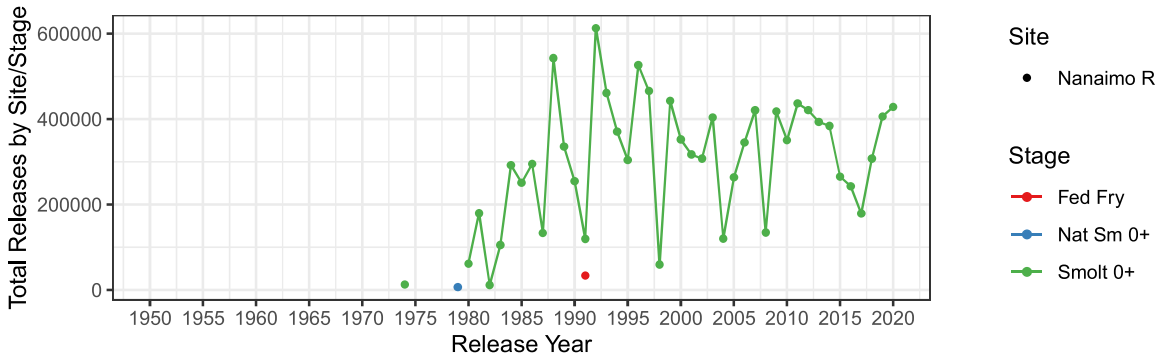
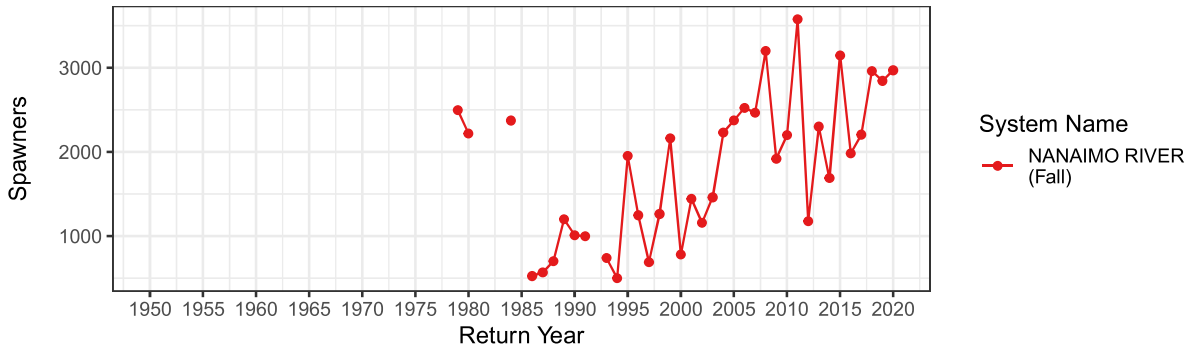


Spawners — Natural Origin — Total — Wild

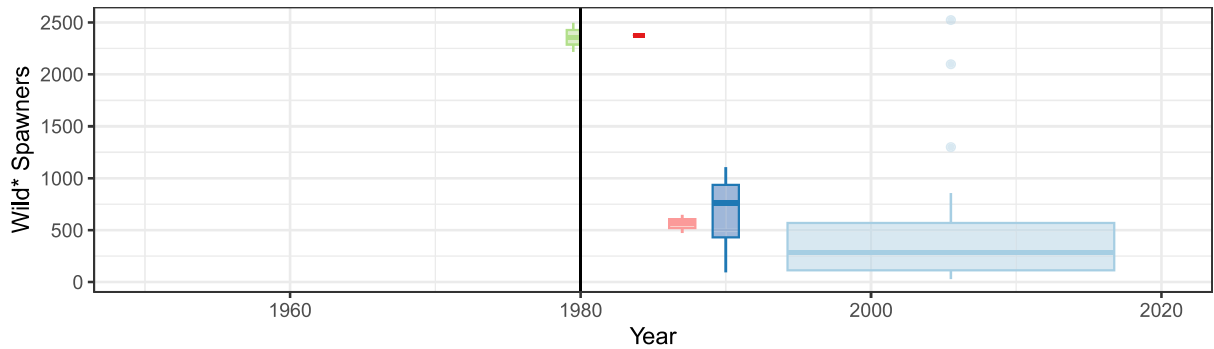
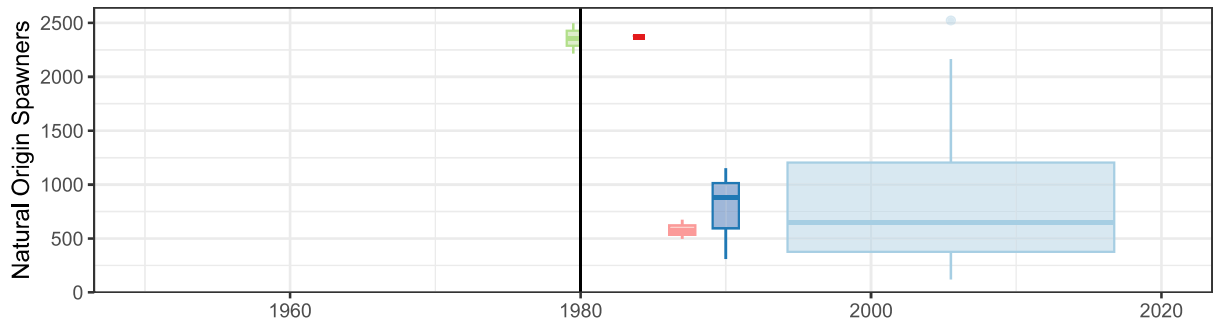
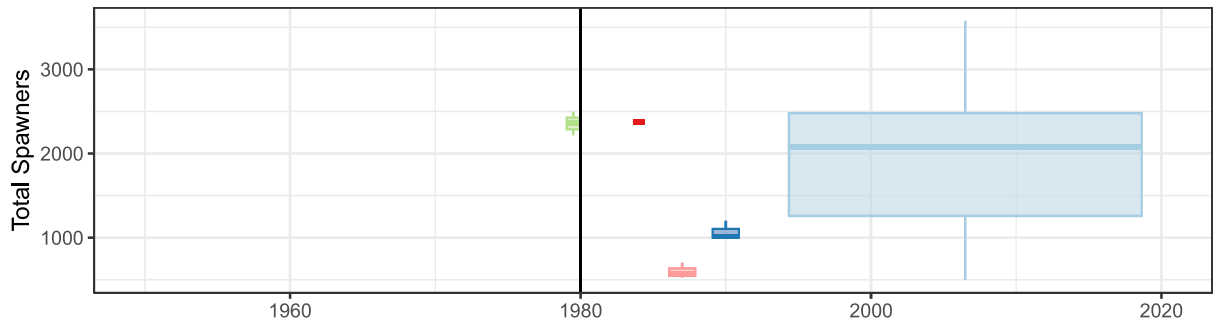
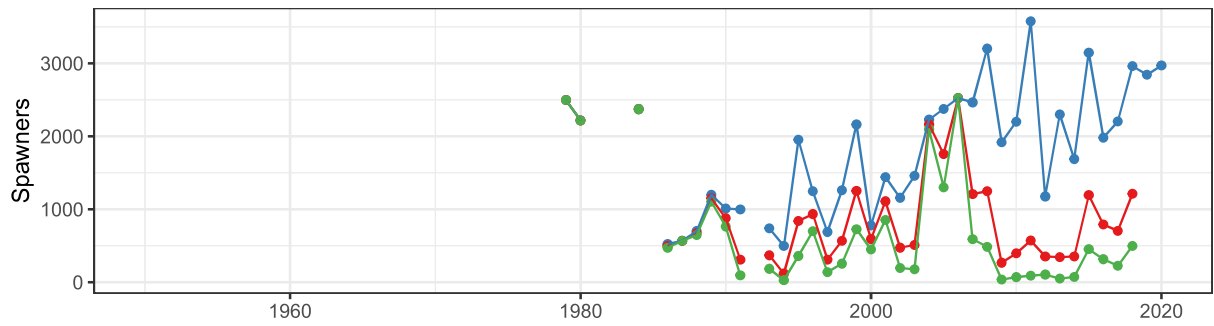
Period: Gen3 (blue), Post Gen3 (light blue), Gen1 (red), Pre (green), Pre 2GL (light green), Gen2 (pink)

Nanaimo River/Fall (ECVI)

EAST VANCOUVER ISLAND-NANAIMO & CHEMAINUS_FA_0.x

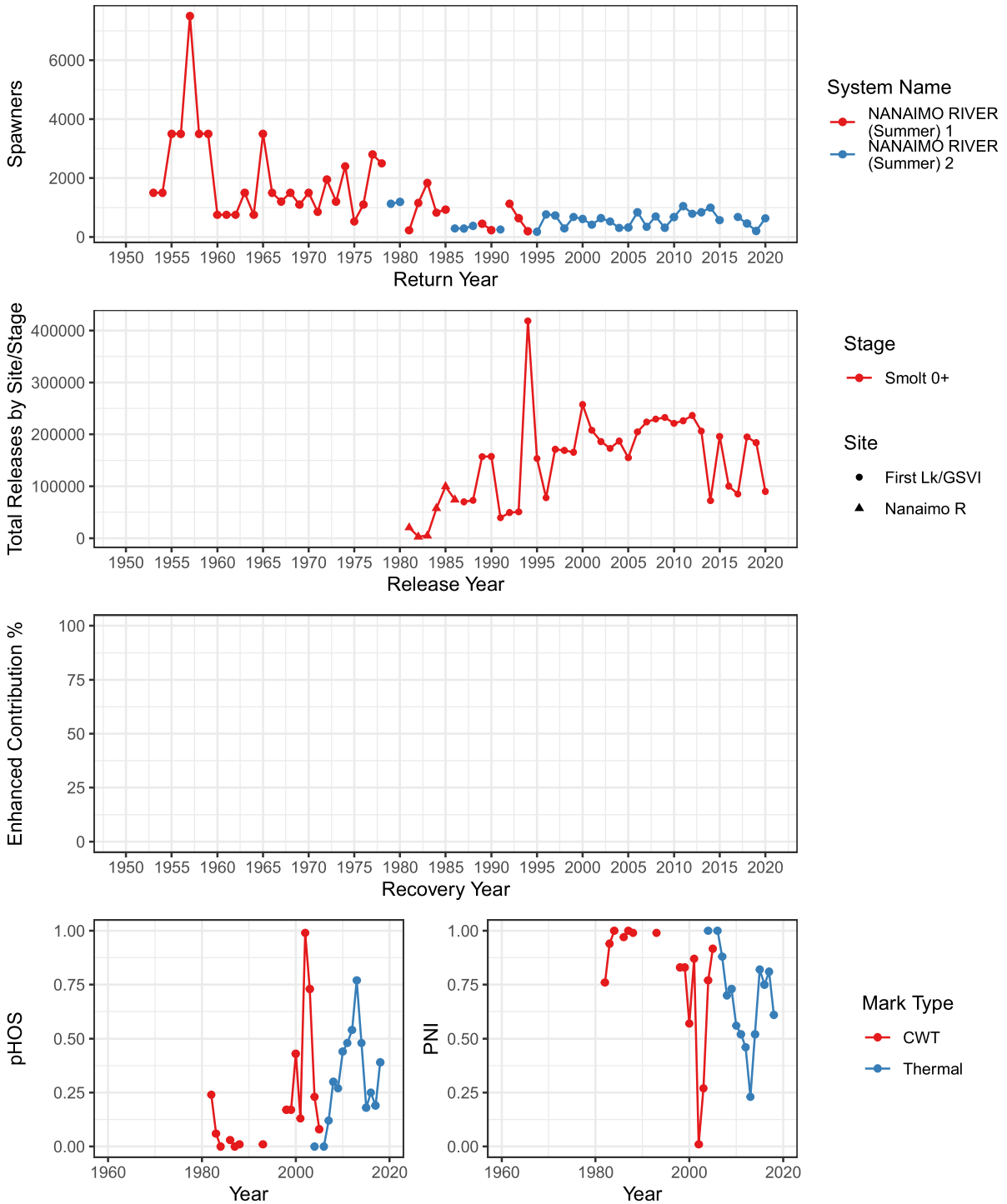


Total Spawners, Natural Origin Spawners, and Wild Spawners
 NANAIMO RIVER (Fall) (ECVI)

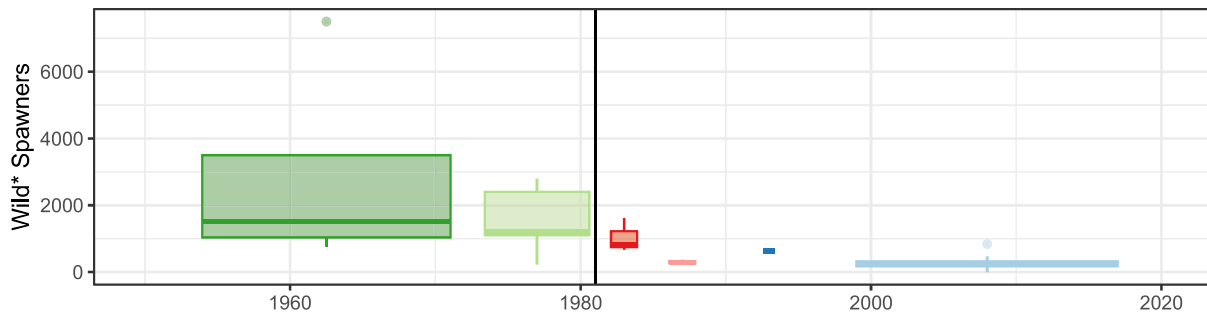
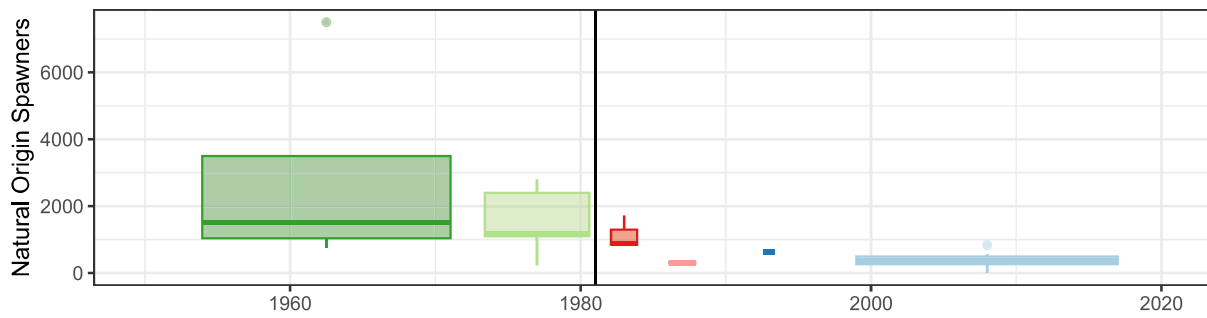
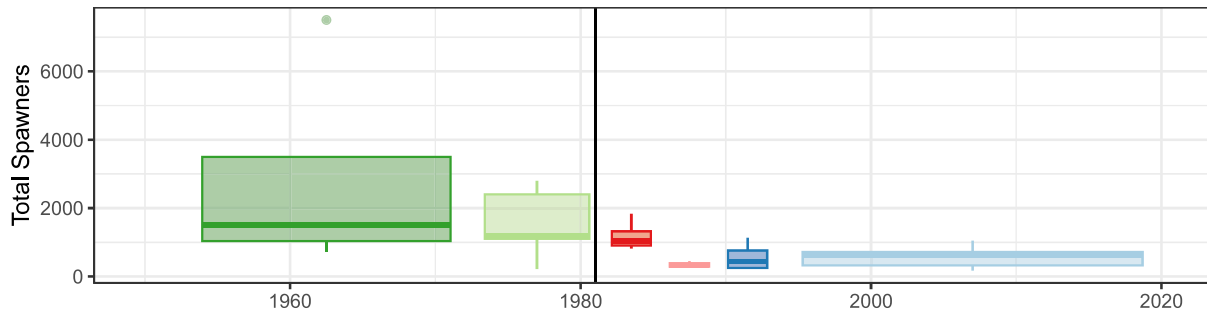
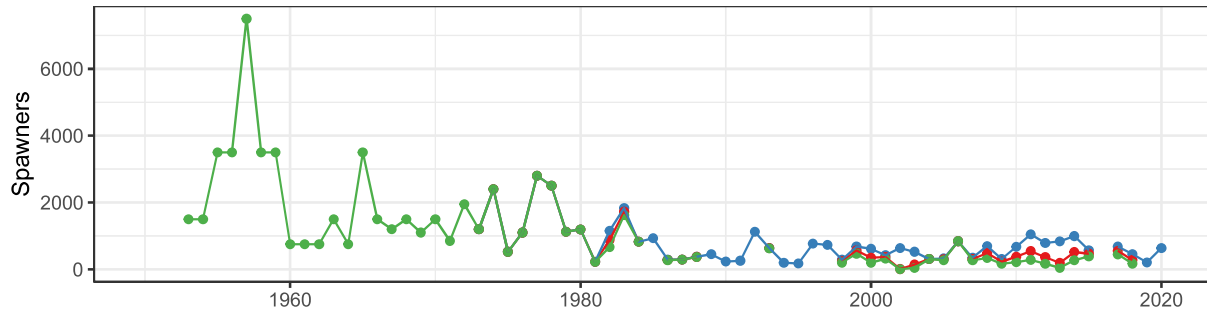


Spawners — Natural Origin — Total — Wild Period — Gen3 — Post Gen3 — Pre 2GL — Gen1 — Ge

Nanaimo River/Summer (ECVI)
 EAST VANCOUVER ISLAND-GEORGIA STRAIT_SU_0.3



Total Spawners, Natural Origin Spawners, and Wild Spawners
 NANAIMO RIVER (Summer) (ECVI)

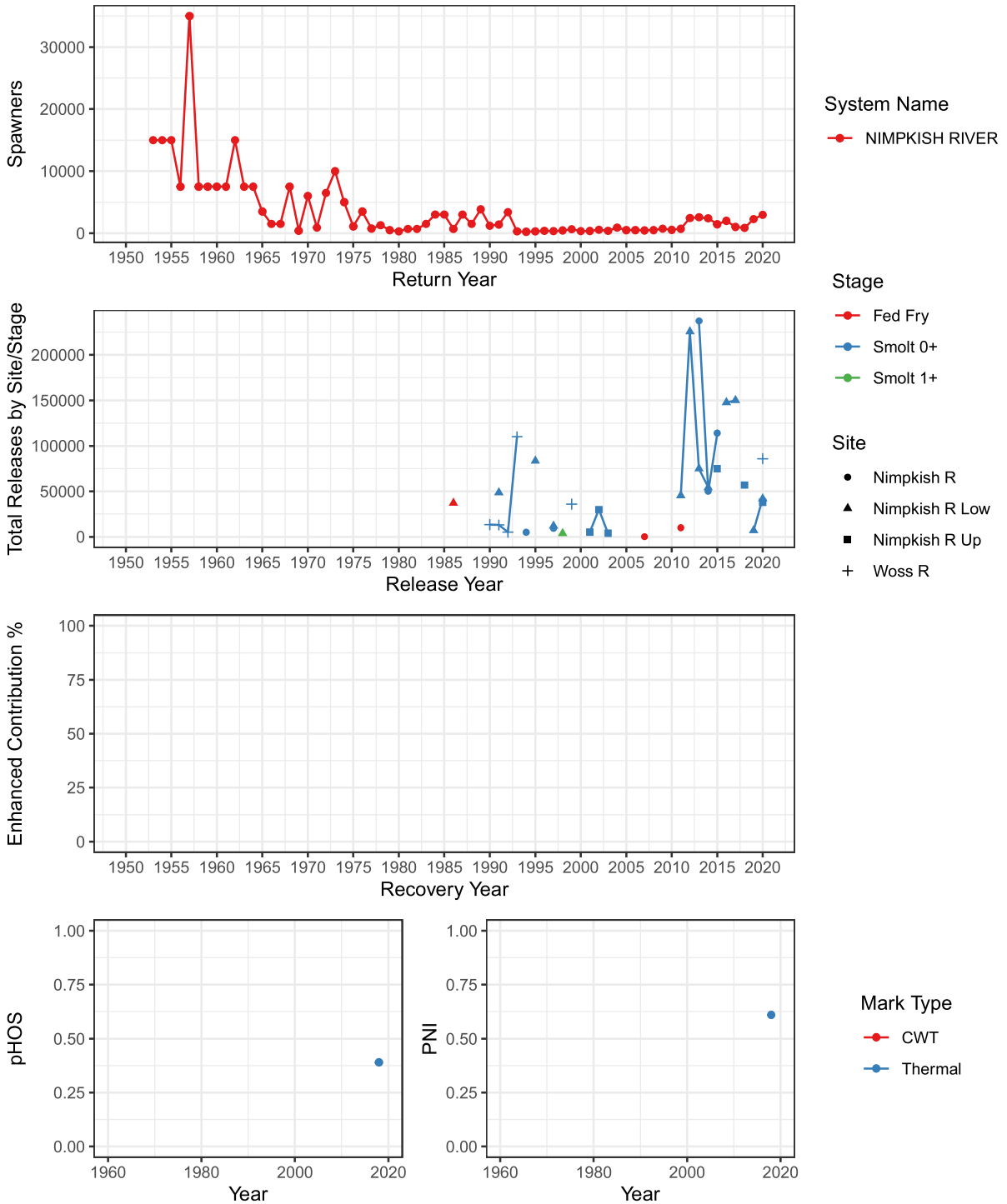


Spawners — Natural Origin — Total — Wild

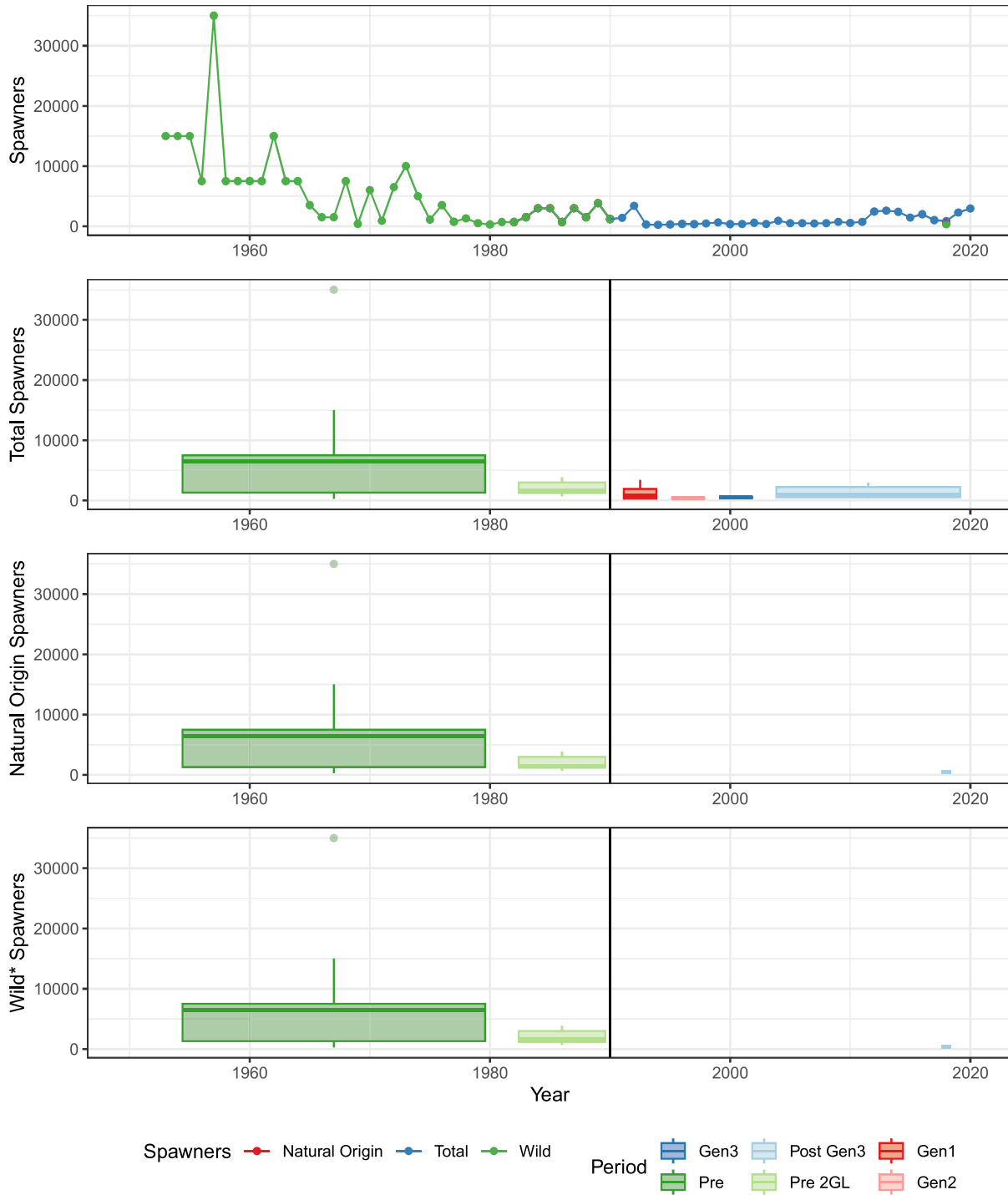
Period

Gen3	Post Gen3	Gen1
Pre	Pre 2GL	Gen2

Nimpkish River (ECVI)
EAST VANCOUVER ISLAND-NORTH_FA_0.x

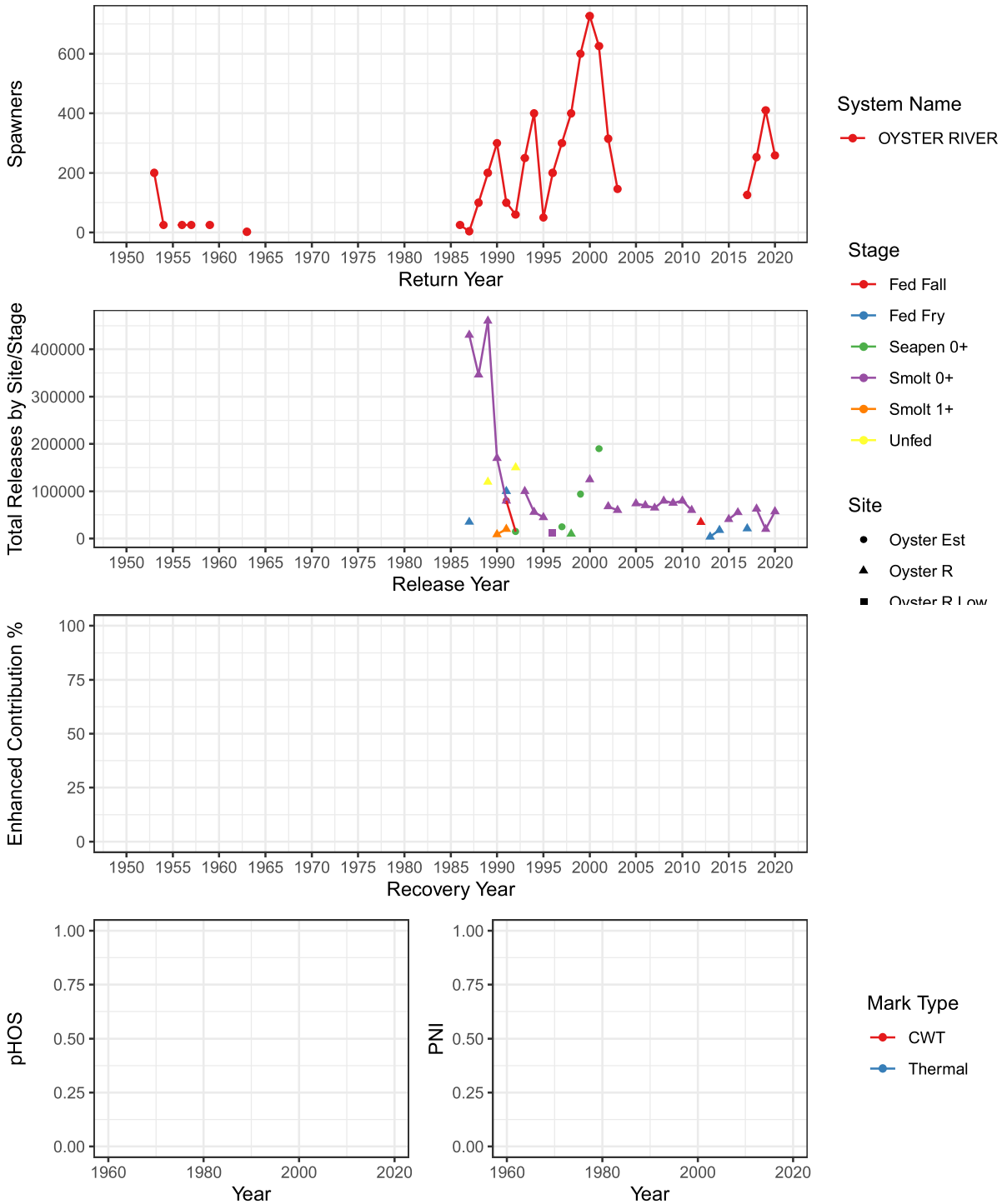


Total Spawners, Natural Origin Spawners, and Wild Spawners
NIMPKISH RIVER (ECVI)

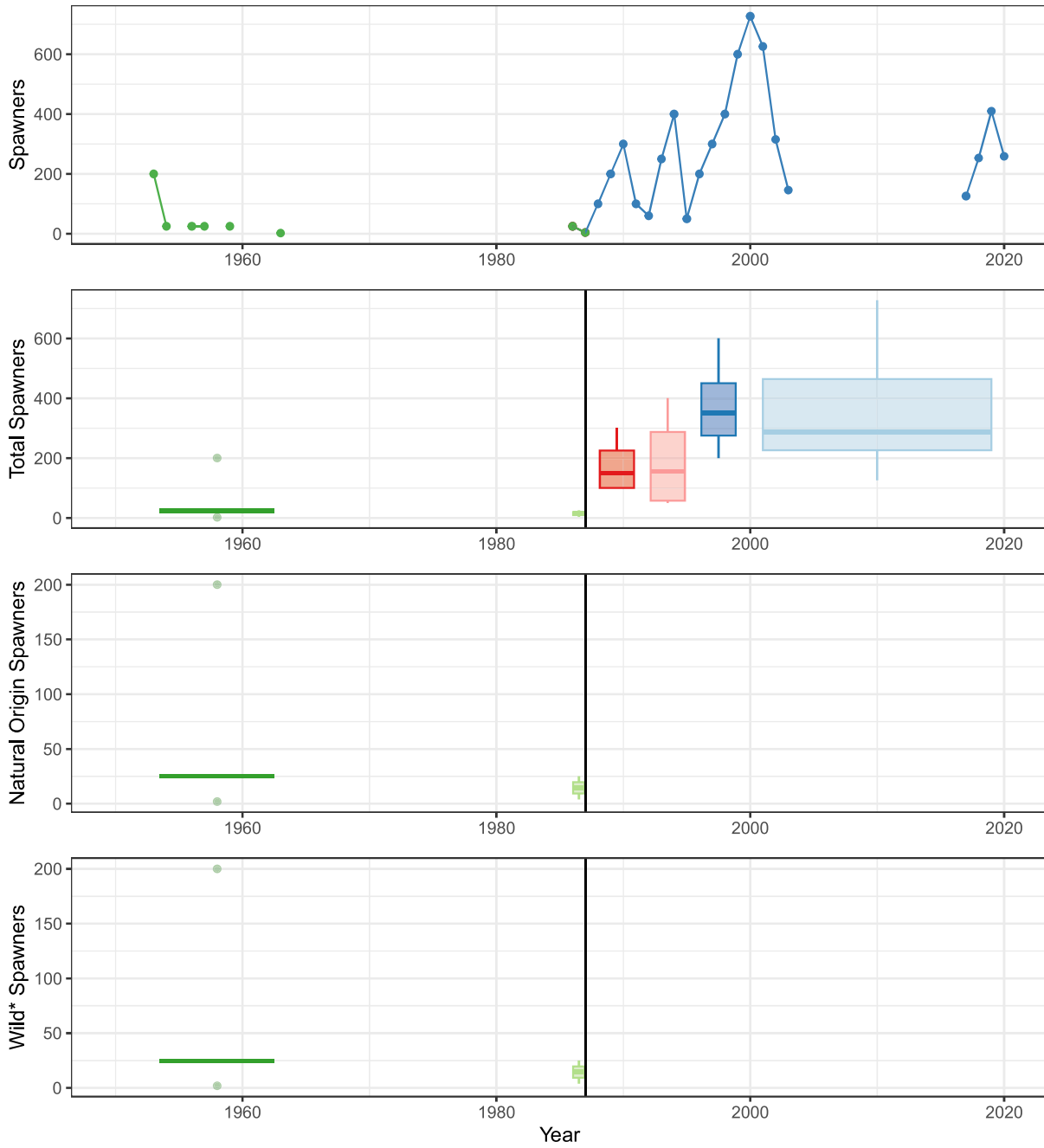


Oyster River (ECVI)

EAST VANCOUVER ISLAND-QUALICUM & PUNTLEDGE_FA_0.x



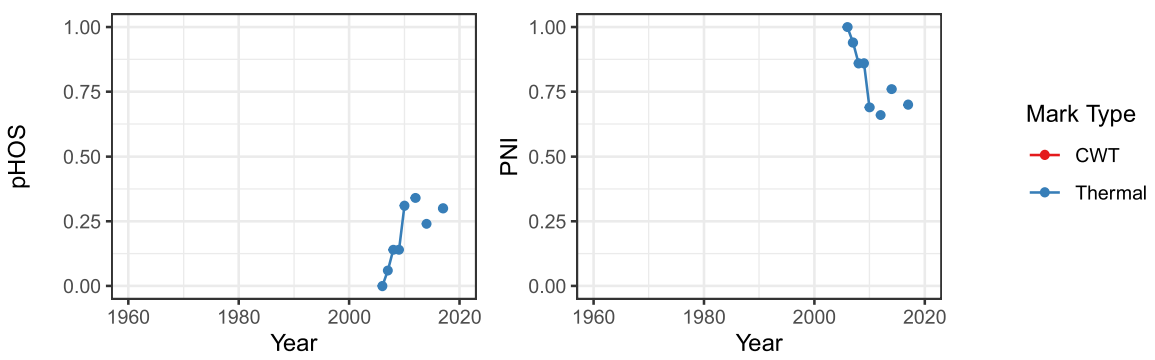
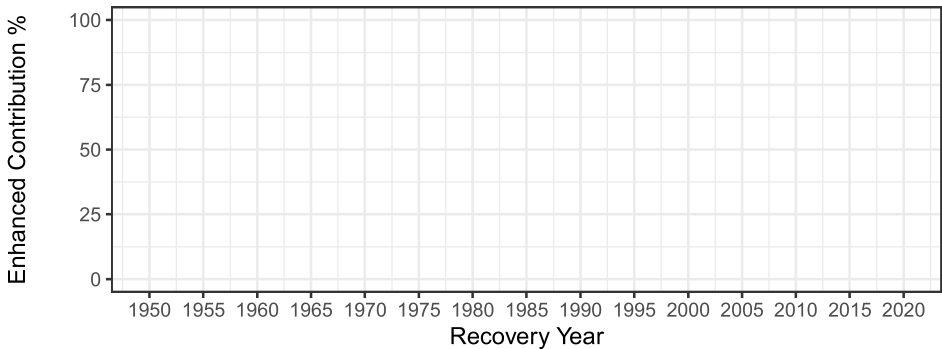
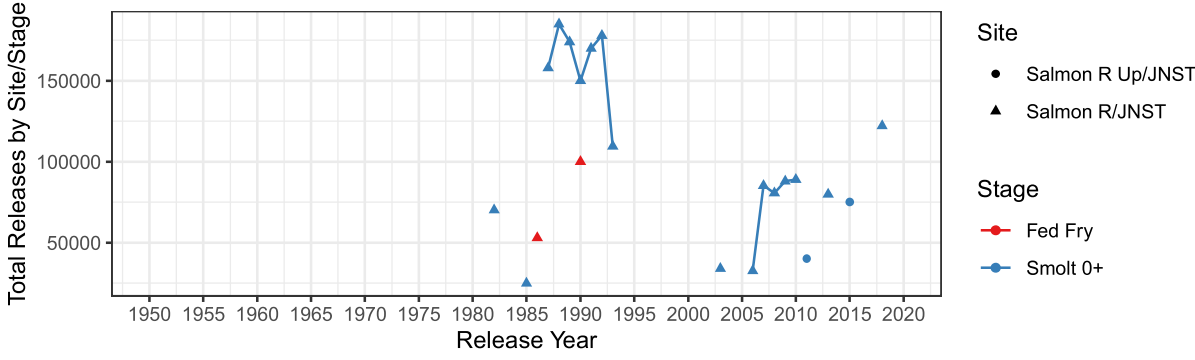
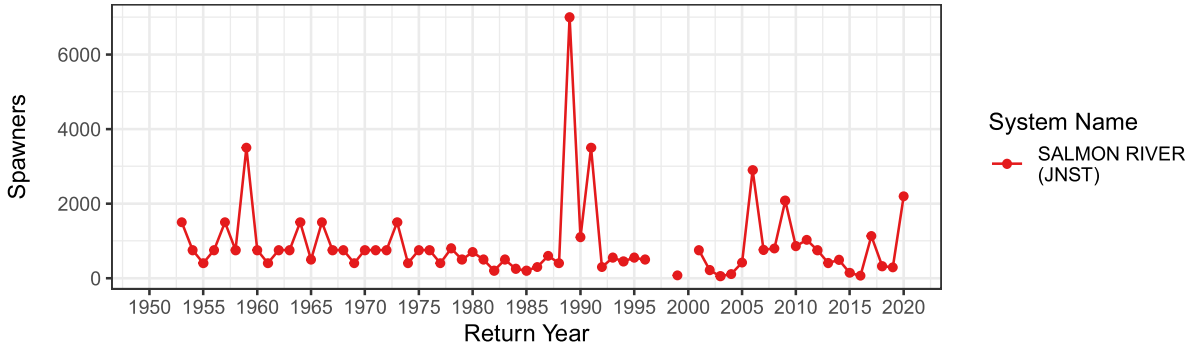
Total Spawners, Natural Origin Spawners, and Wild Spawners
OYSTER RIVER (ECVI)



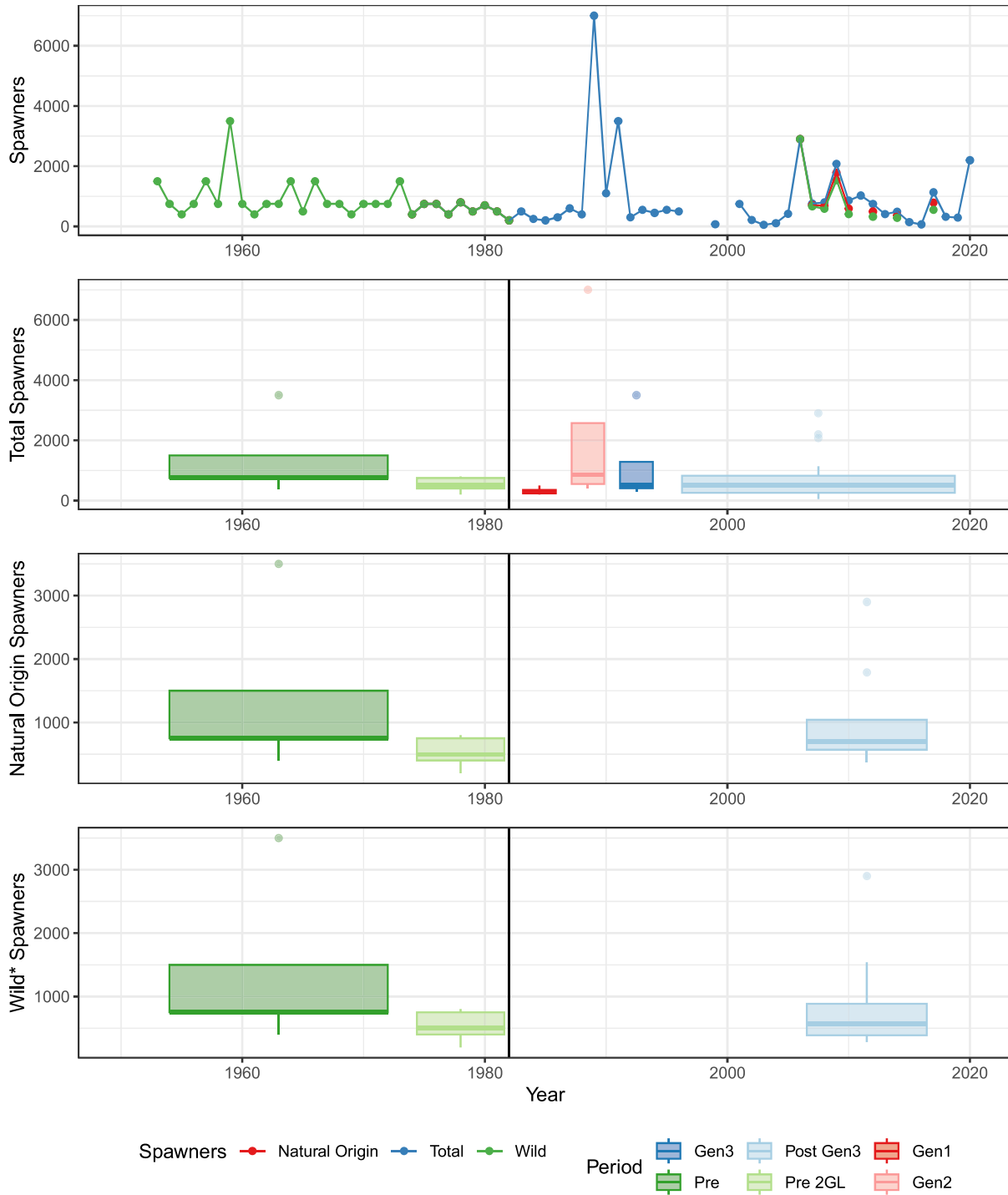
Spawners — Natural Origin — Total — Wild

Period — Gen3 — Post Gen3 — Gen1 — Pre — Pre 2GL — Gen2

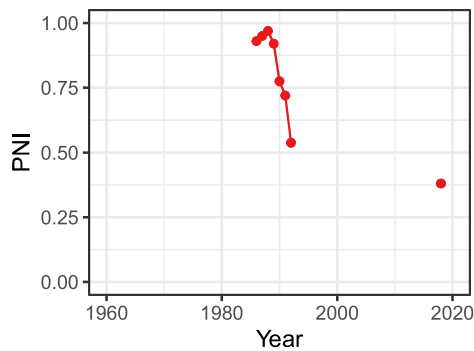
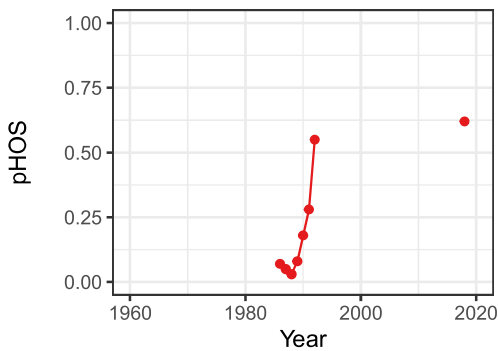
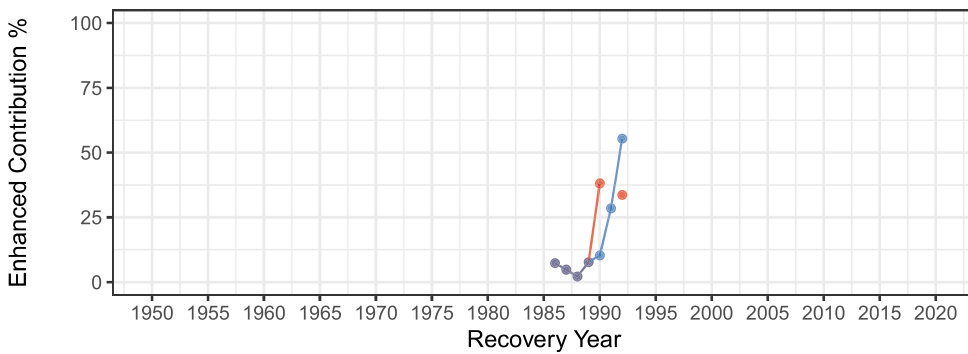
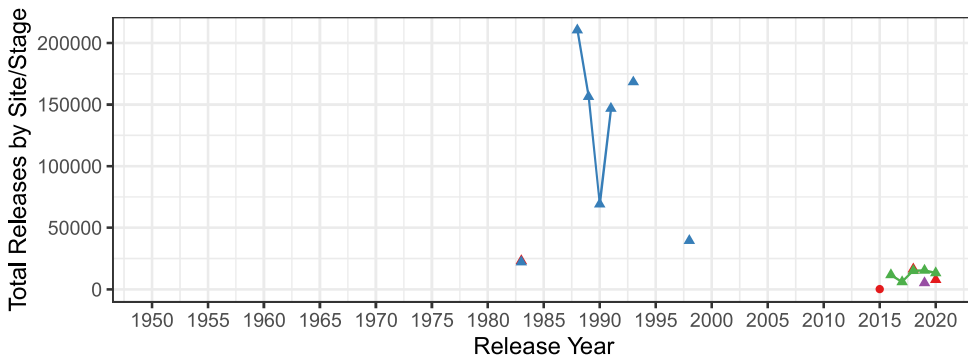
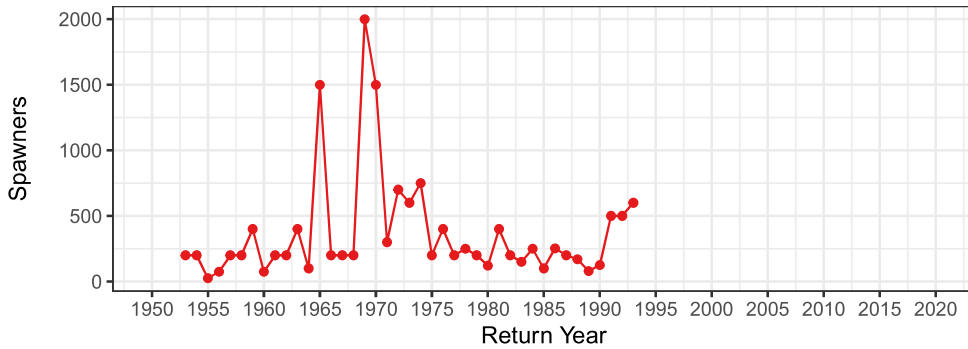
Salmon River/JNST (ECVI)
EAST VANCOUVER ISLAND-NORTH_FA_0.x



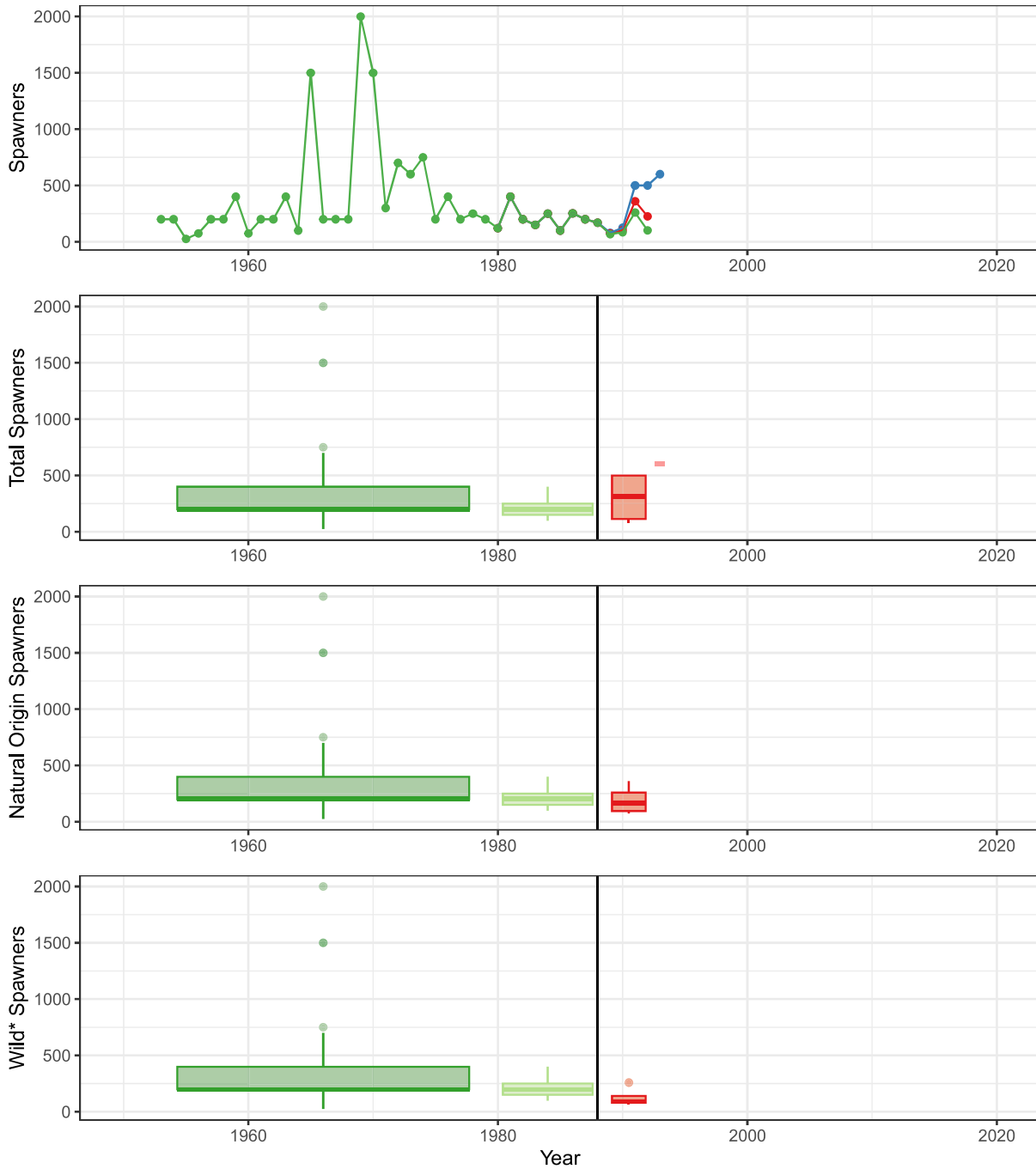
Total Spawners, Natural Origin Spawners, and Wild Spawners
SALMON RIVER (JNST) (ECVI)



Ashlu Creek (Fraser)
SOUTHERN MAINLAND-GEORGIA STRAIT_FA_0.x

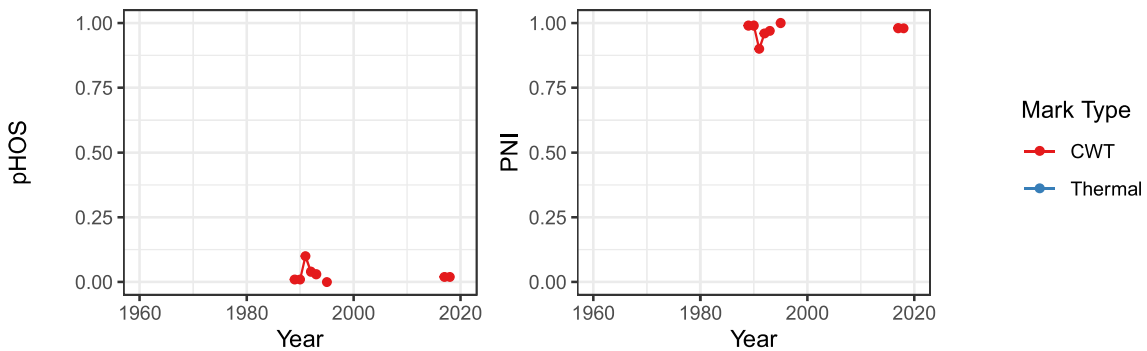
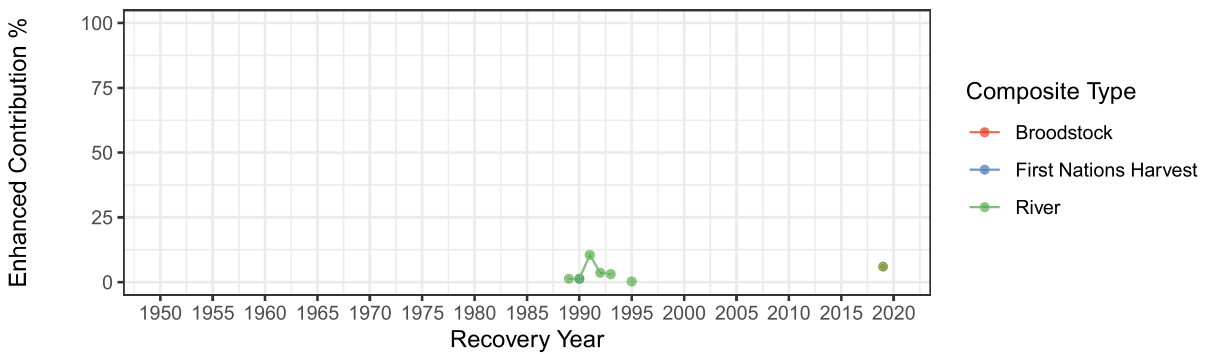
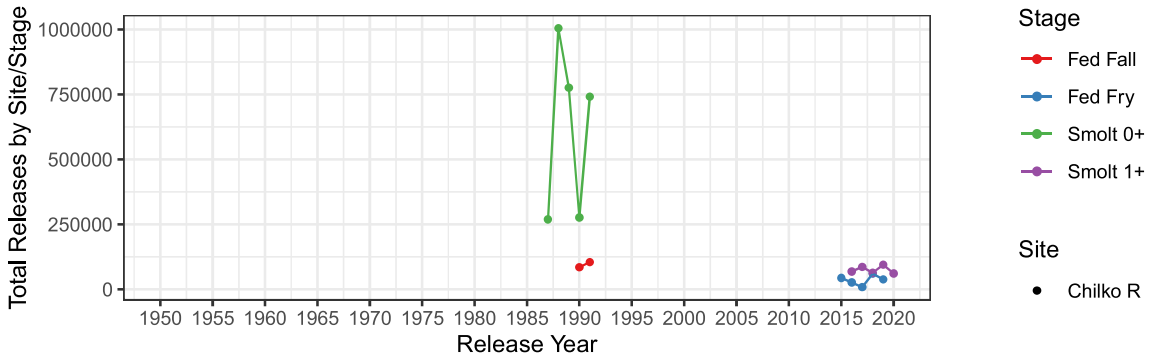
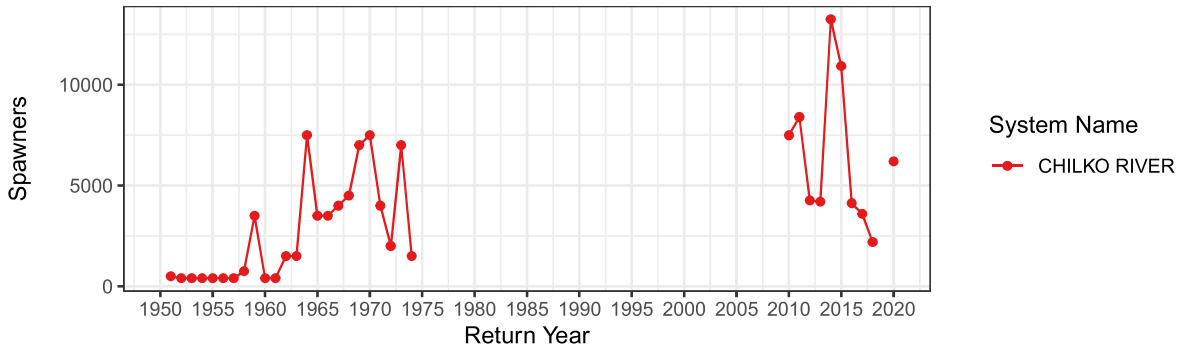


Total Spawners, Natural Origin Spawners, and Wild Spawners
 ASHLU CREEK (Fraser)

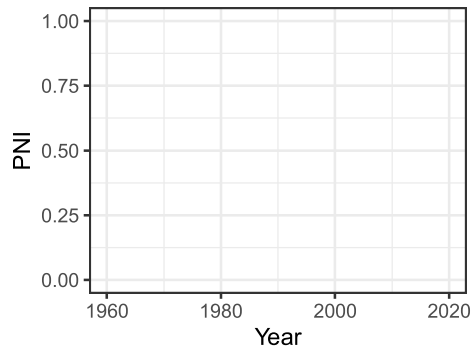
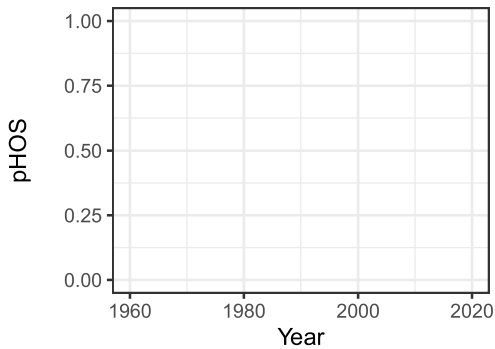
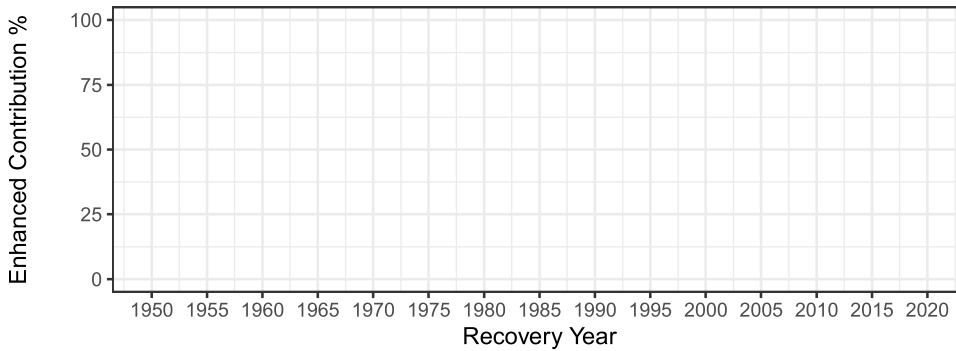
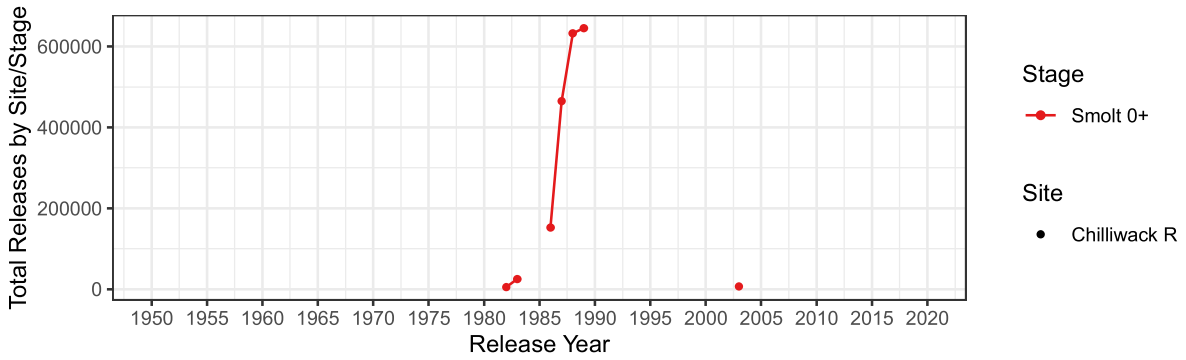
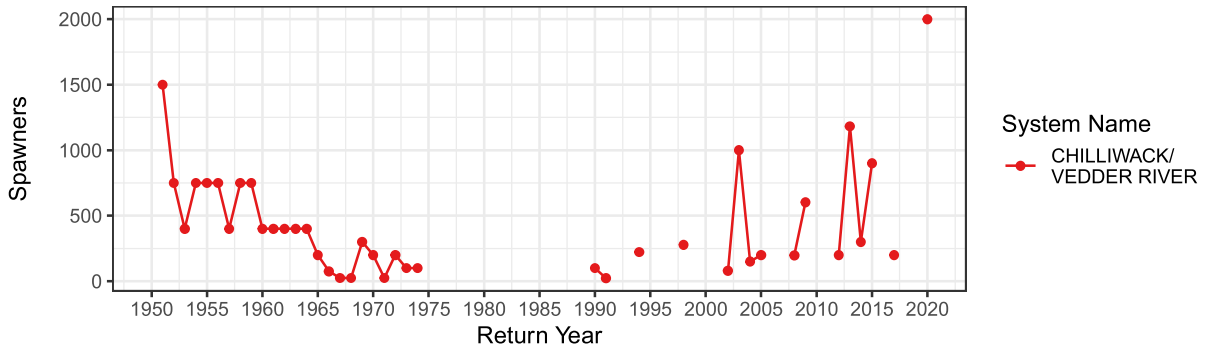


Spawners — Natural Origin — Total — Wild Period — Pre — Pre 2GL — Gen1 — Gen2

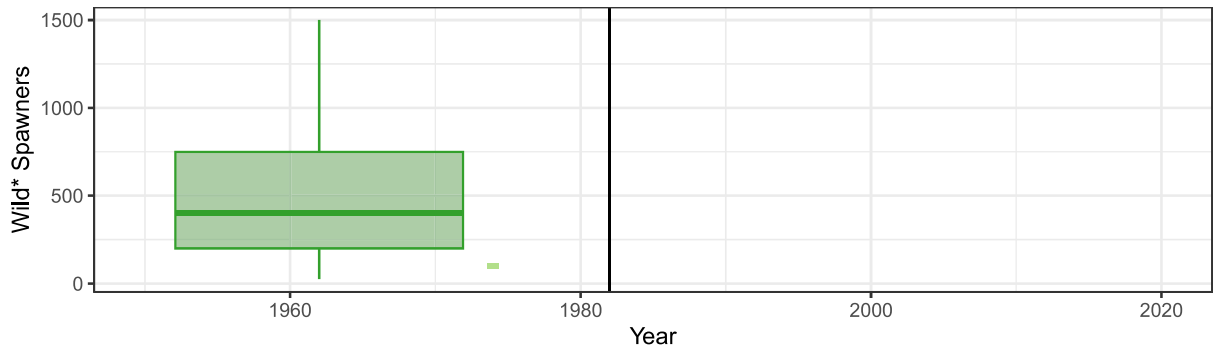
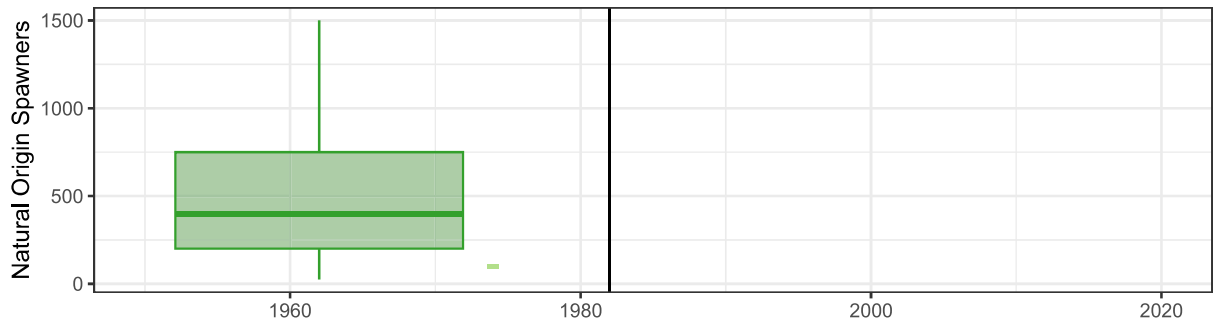
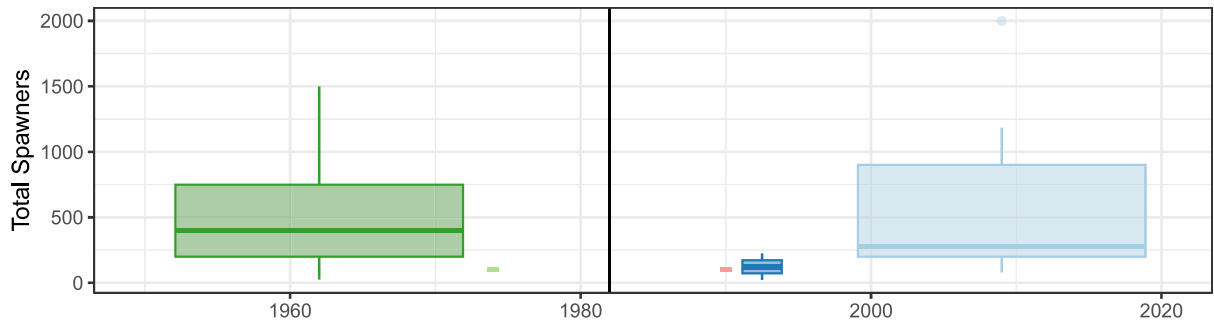
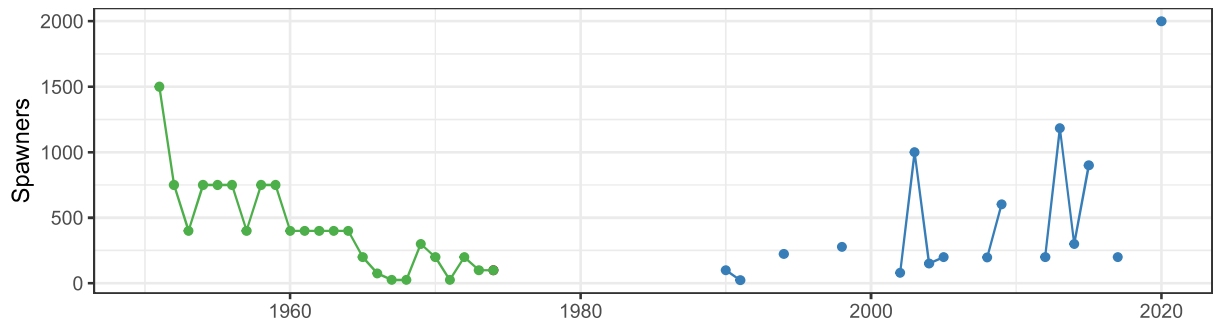
Chilko River (Fraser)
MIDDLE FRASER RIVER_SU_1.3



Chilliwack River (Fraser)
 LOWER FRASER RIVER_SU_1.3

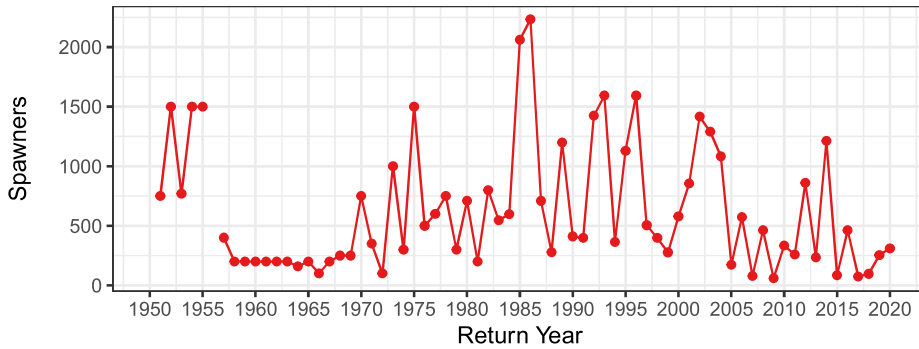


Total Spawners, Natural Origin Spawners, and Wild Spawners
 CHILLIWACK/VEDDER RIVER (Fraser)

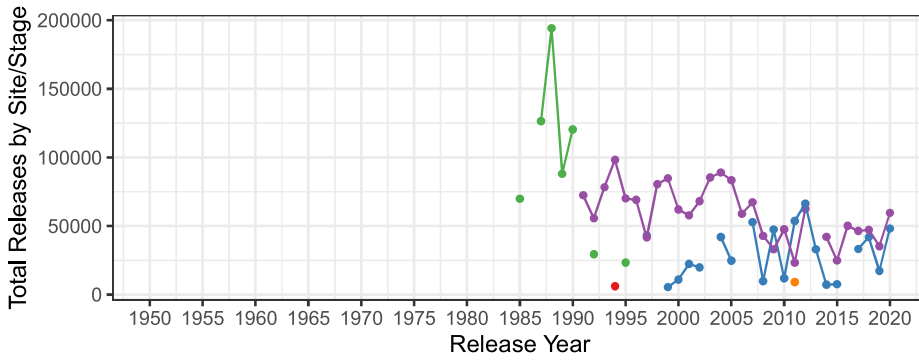


Spawners — Natural Origin — Total — Wild — Period — Gen3 — Pre — Post Gen3 — Pre 2GL — Ger

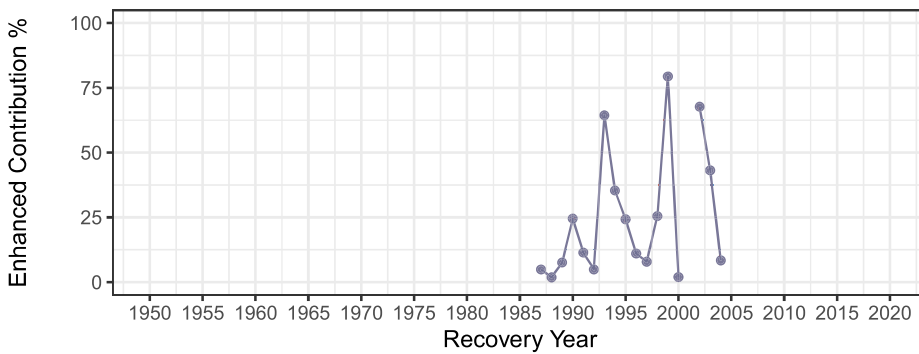
Coldwater River (Fraser)
LOWER THOMPSON_SP_1.2



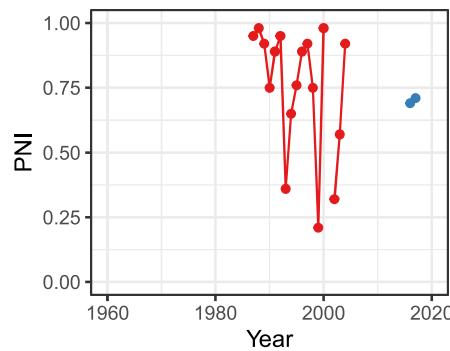
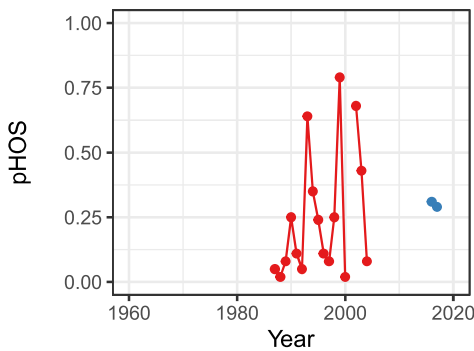
System Name
COLDWATER RIVER



Stage
 Fed Fall
 Fed Fry
 Smolt 0+
 Smolt 1+
 Unfed
 Site
 Coldwater R

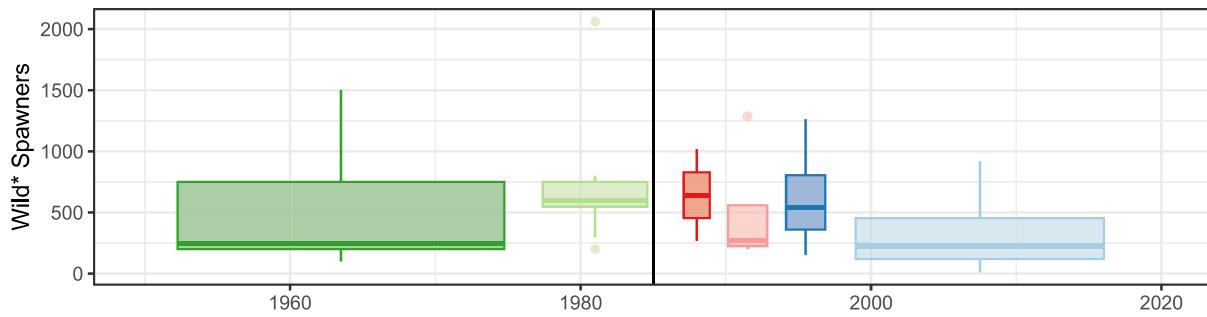
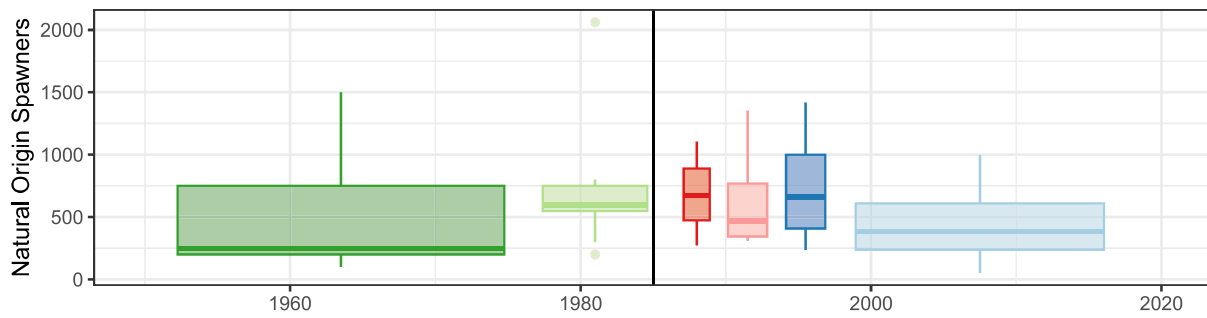
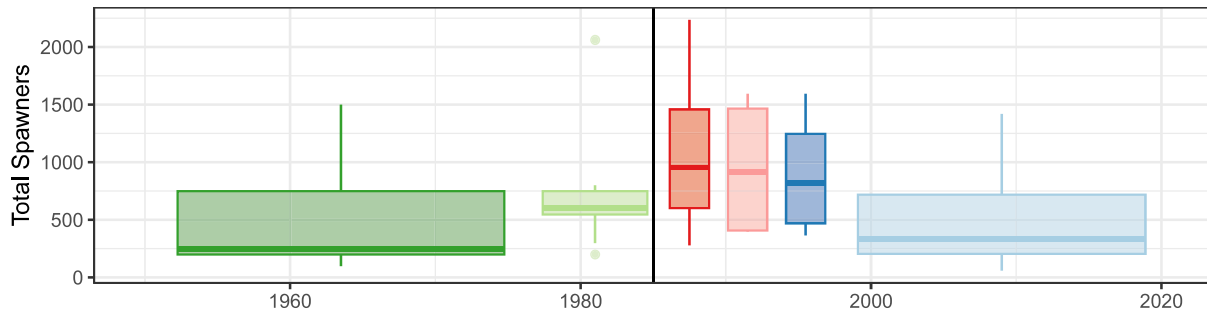
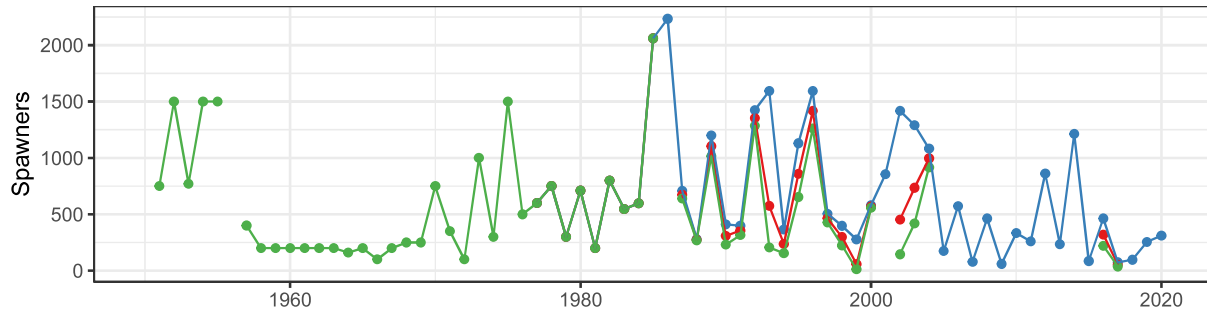


Composite Type
 Broodstock
 River



Mark Type
 CWT
 Thermal

Total Spawners, Natural Origin Spawners, and Wild Spawners
COLDWATER RIVER (Fraser)

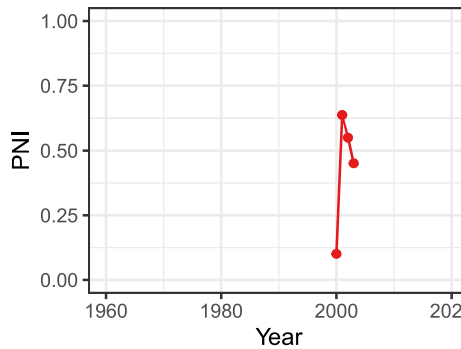
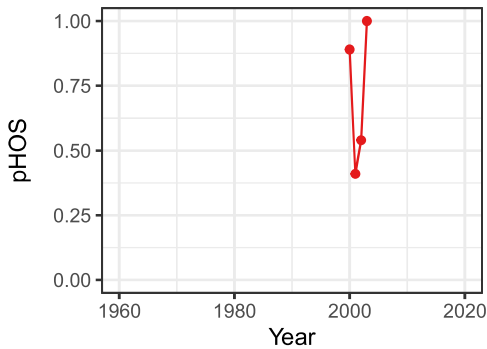
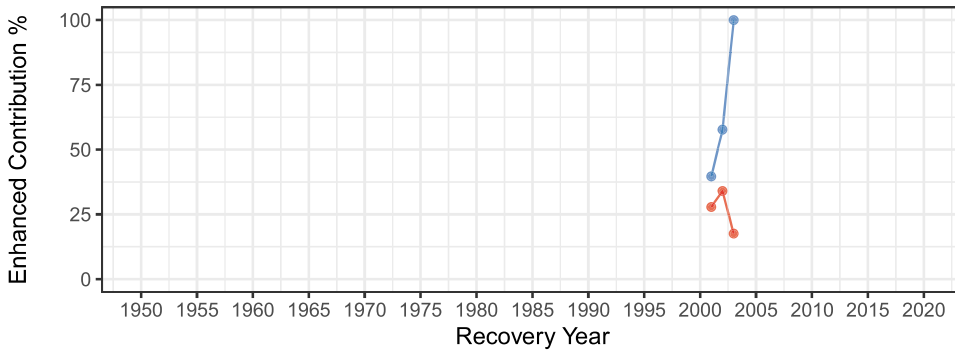
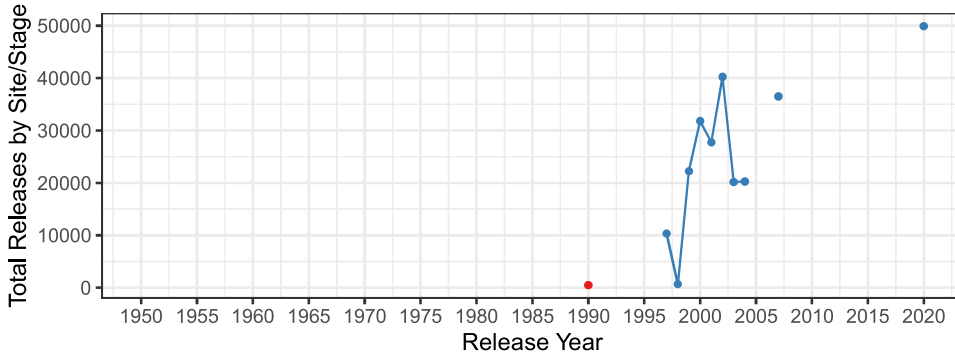
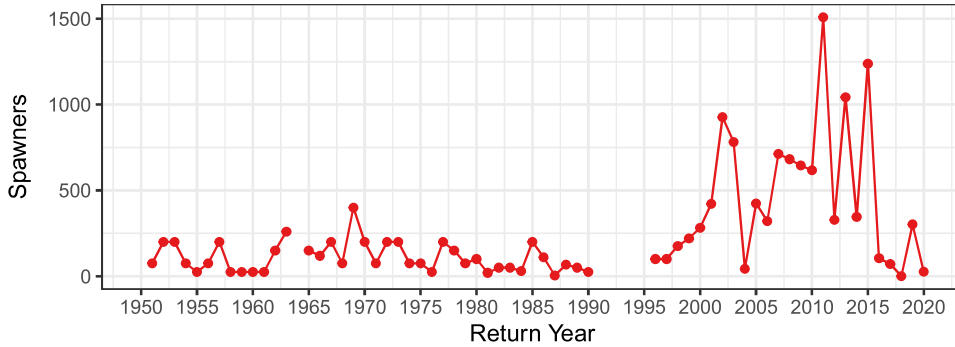


Spawners — Natural Origin — Total — Wild

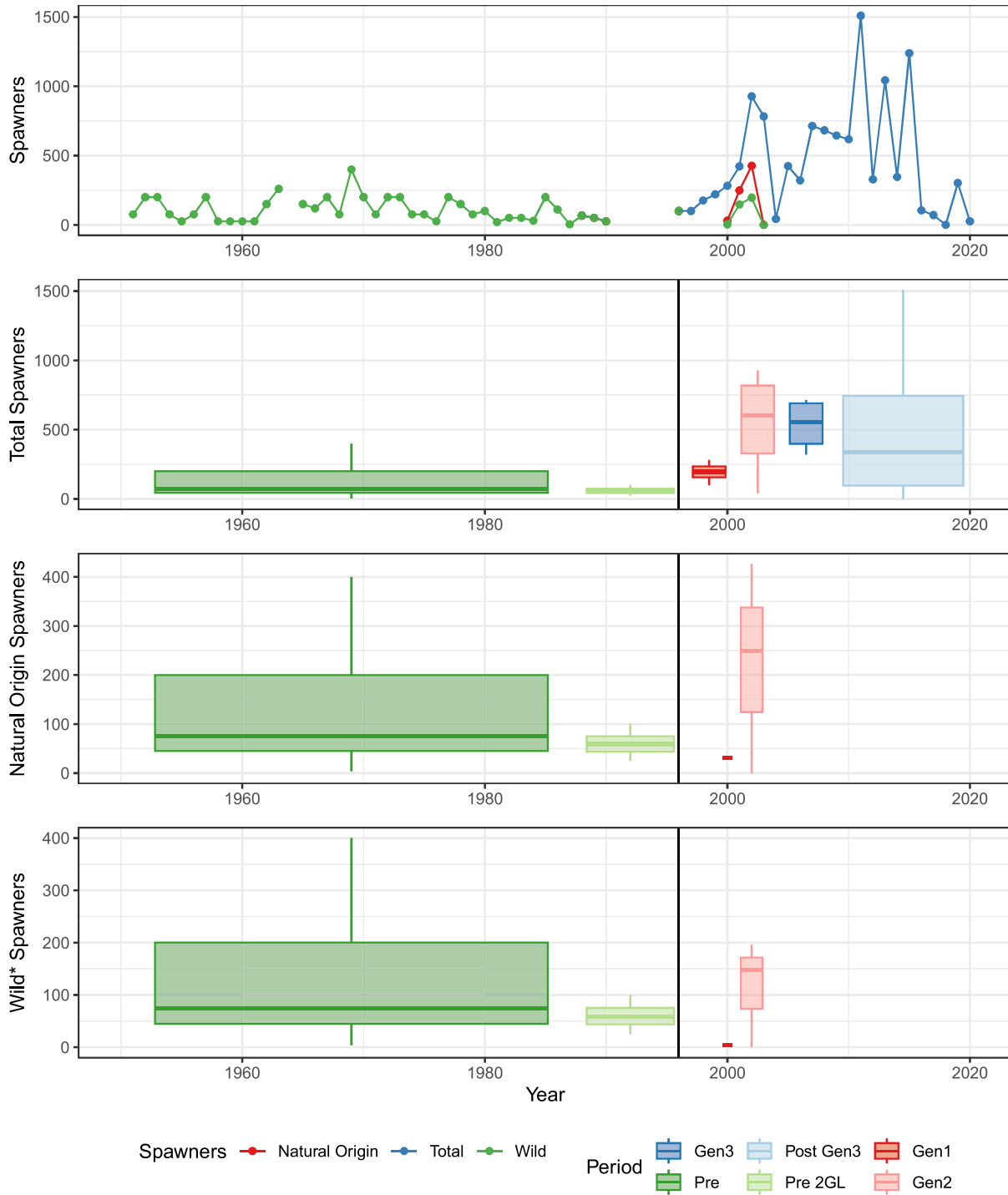
Period

- Gen3
- Post Gen3
- Gen1
- Pre
- Pre 2GL
- Gen2

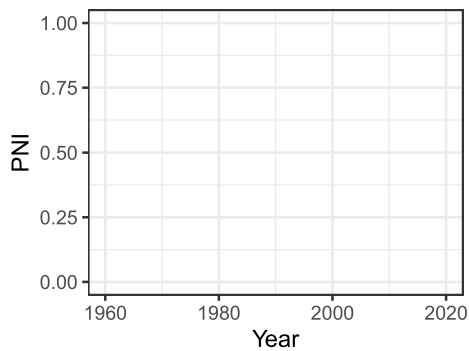
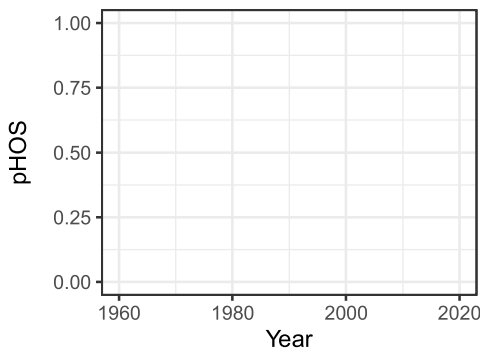
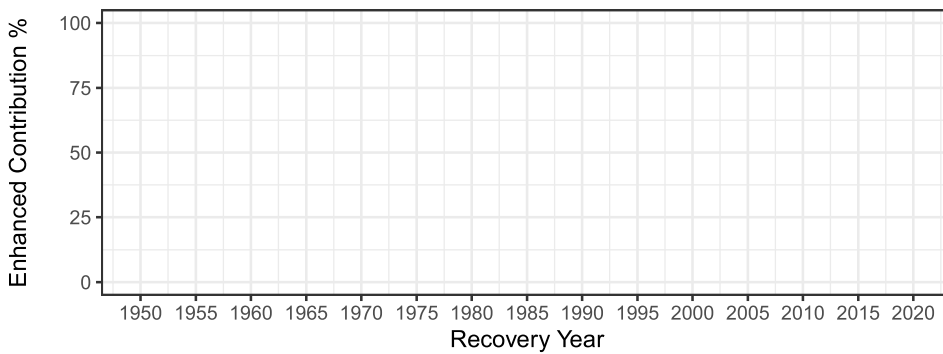
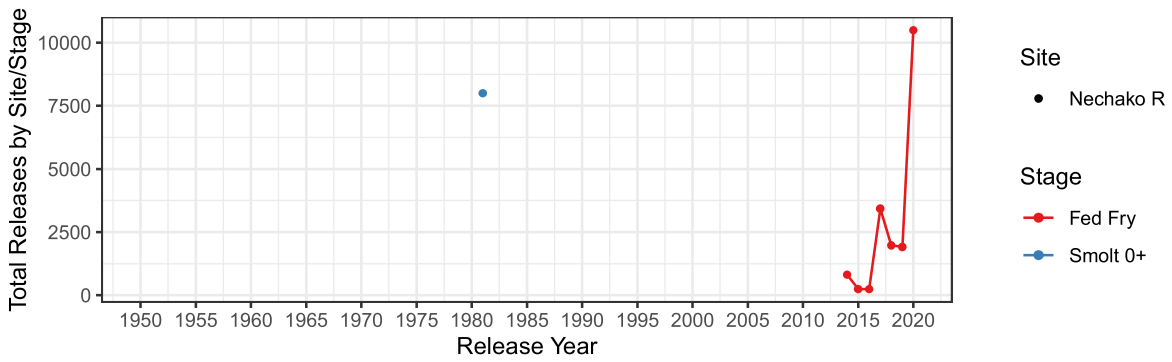
Maria Slough (Fraser)
 MARIA SLOUGH_SU_0.3



Total Spawners, Natural Origin Spawners, and Wild Spawners
 MARIA SLOUGH (Fraser)



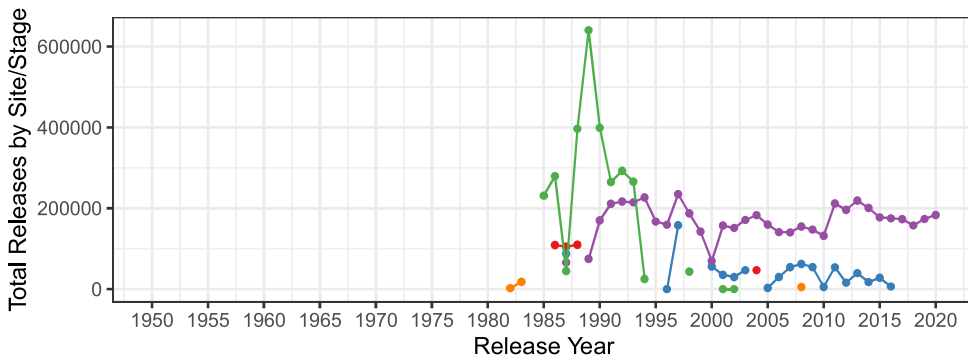
Nechako River (Fraser)
MIDDLE FRASER RIVER_SU_1.3



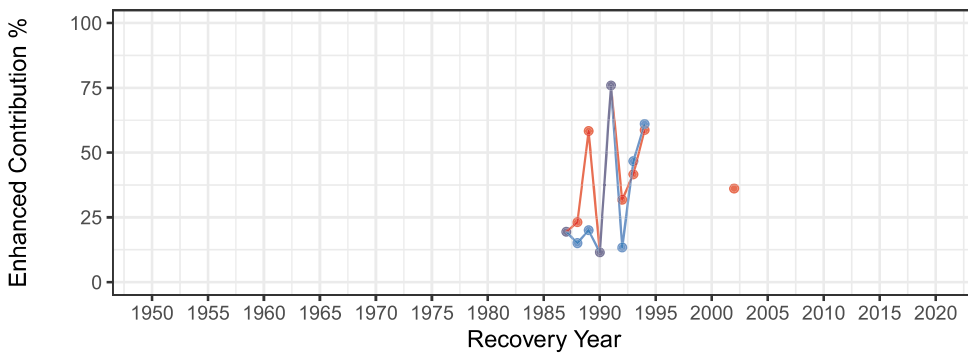
Nicola River (Fraser)
LOWER THOMPSON_SP_1.2



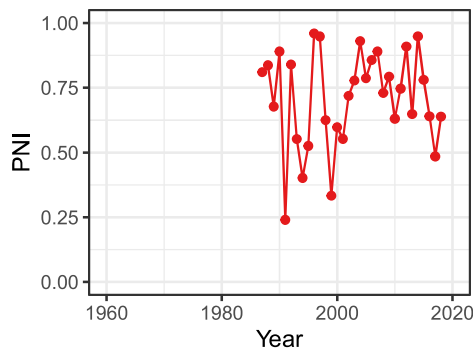
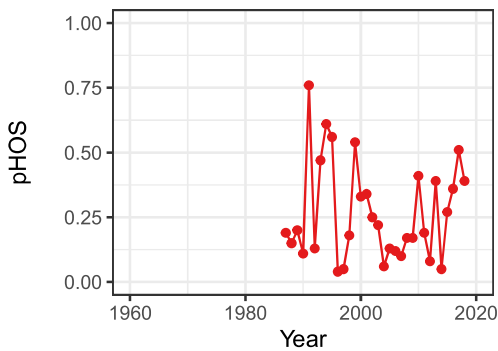
System Name
—●— NICOLA RIVER



Stage
—●— Fed Fall
—●— Fed Fry
—●— Smolt 0+
—●— Smolt 1+
—●— Unfed
Site
● Nicola R

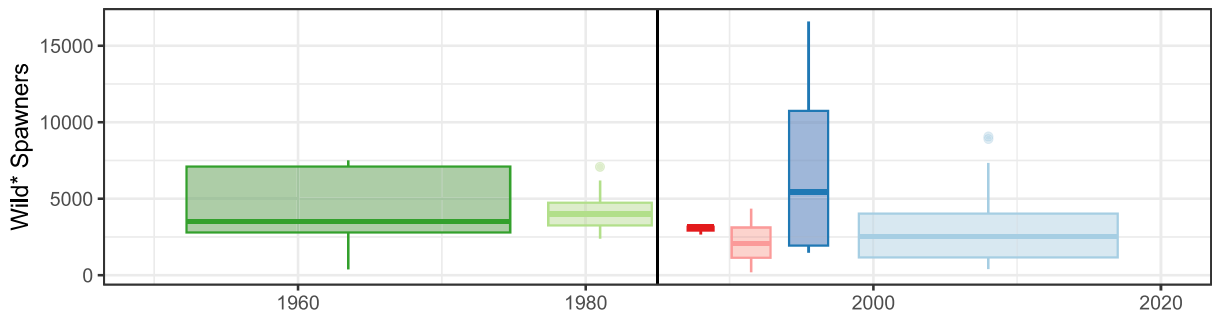
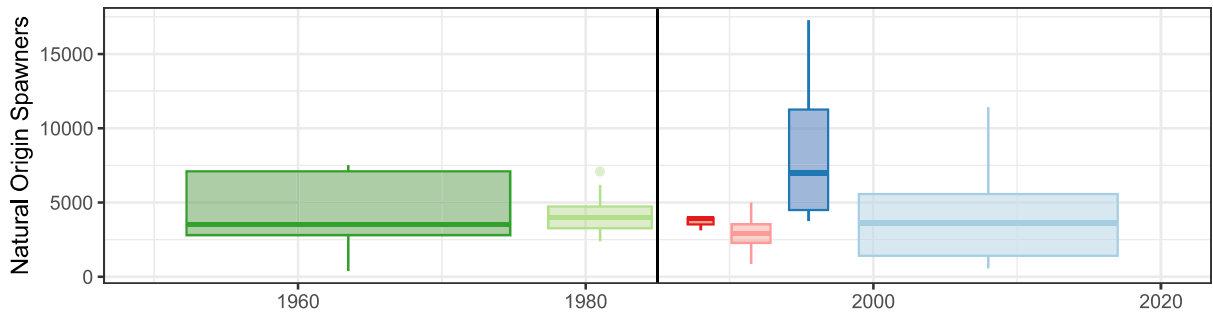
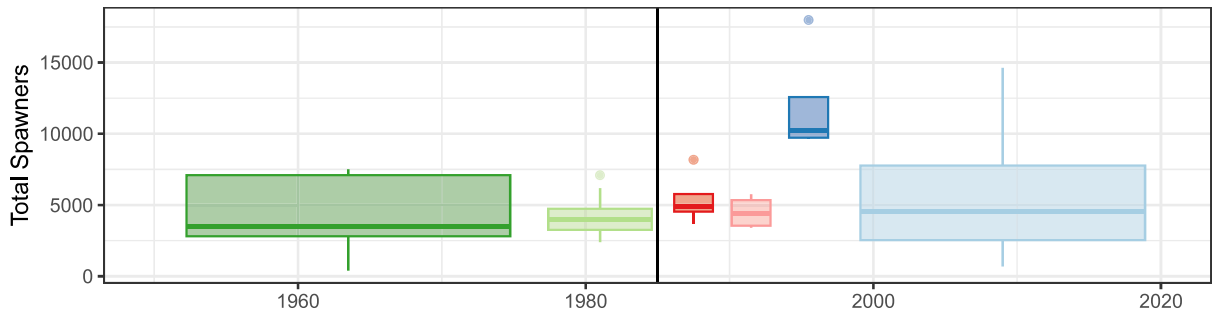
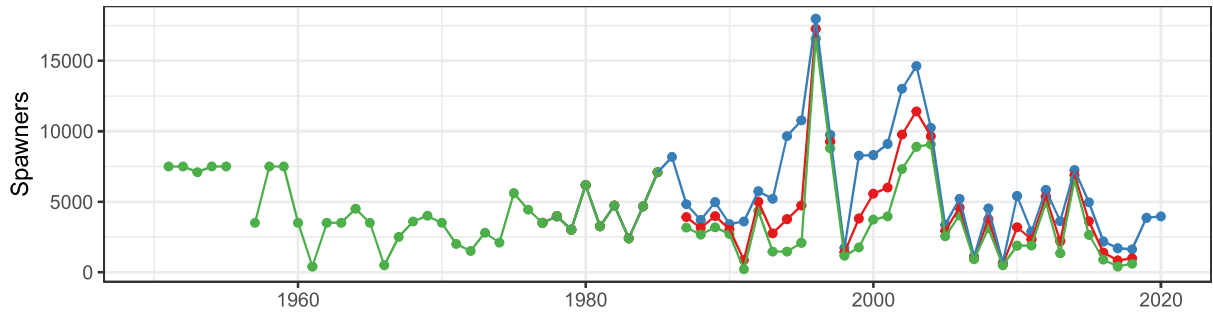


Composite Type
—●— Broodstock
—●— River



Mark Type
—●— CWT
—●— Thermal

Total Spawners, Natural Origin Spawners, and Wild Spawners
 NICOLA RIVER (Fraser)

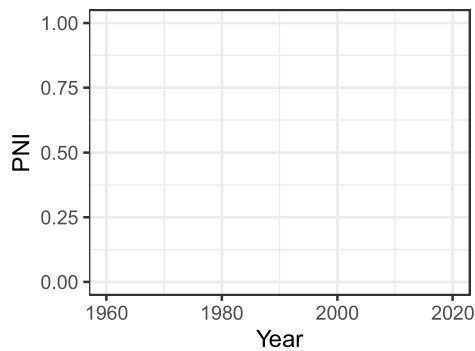
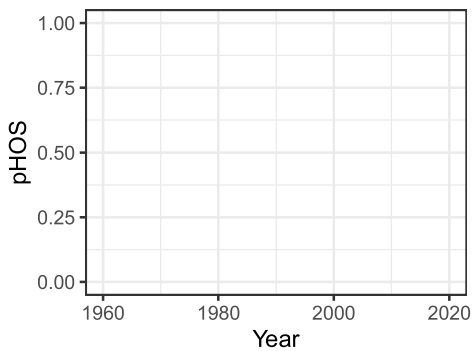
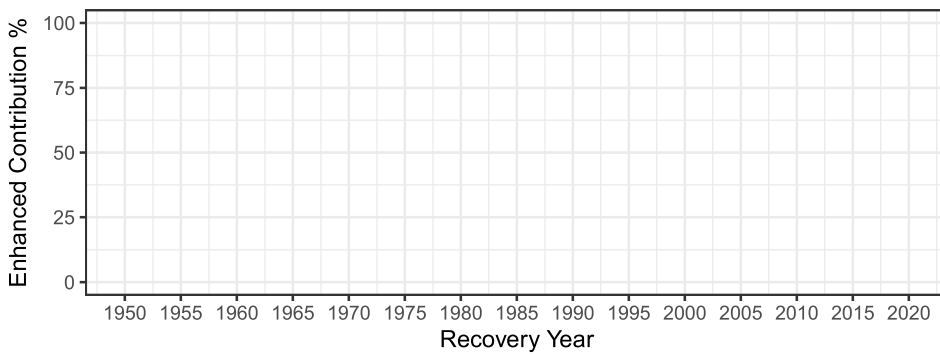
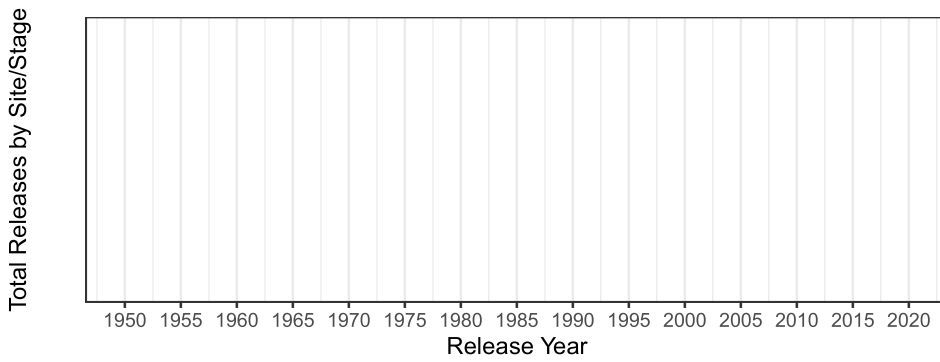
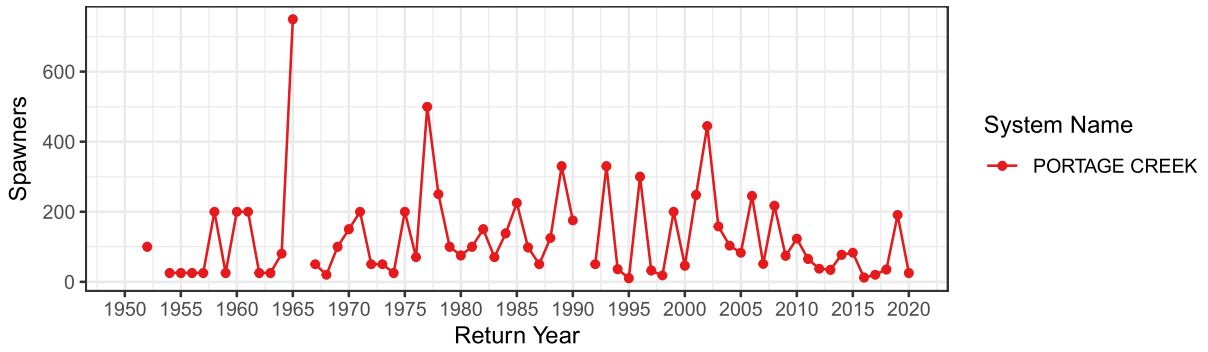


Spawners — Natural Origin — Total — Wild

Period — Gen3 — Post Gen3 — Gen1 — Pre — Pre 2GL — Gen2

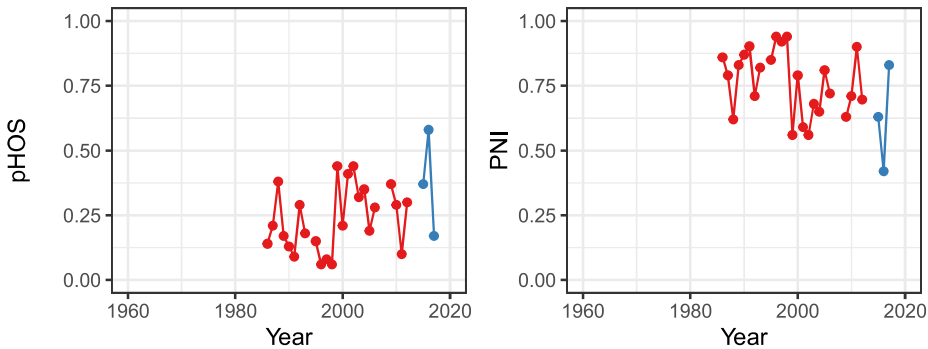
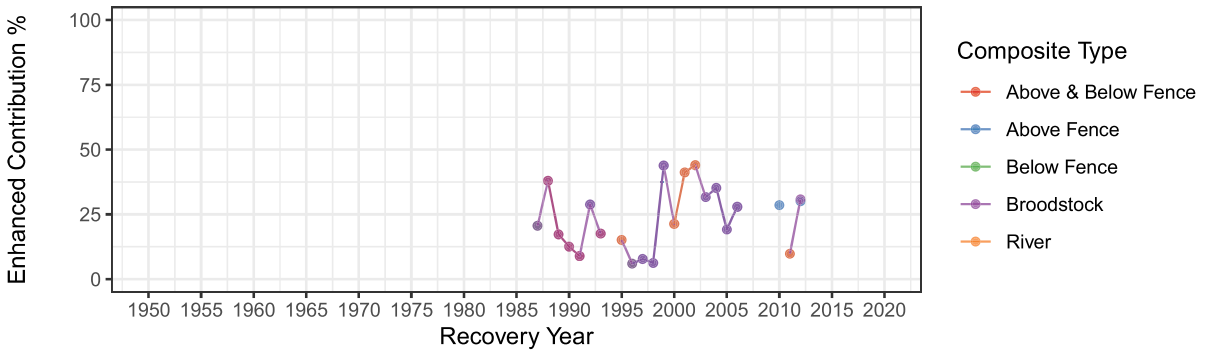
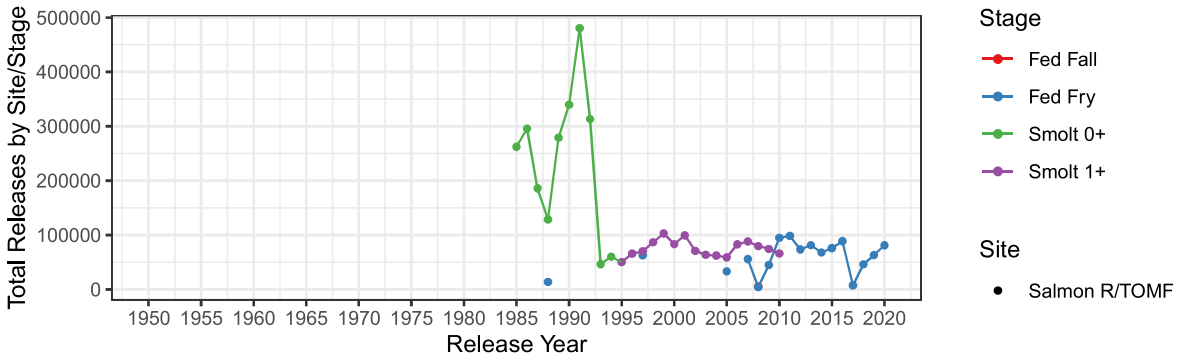
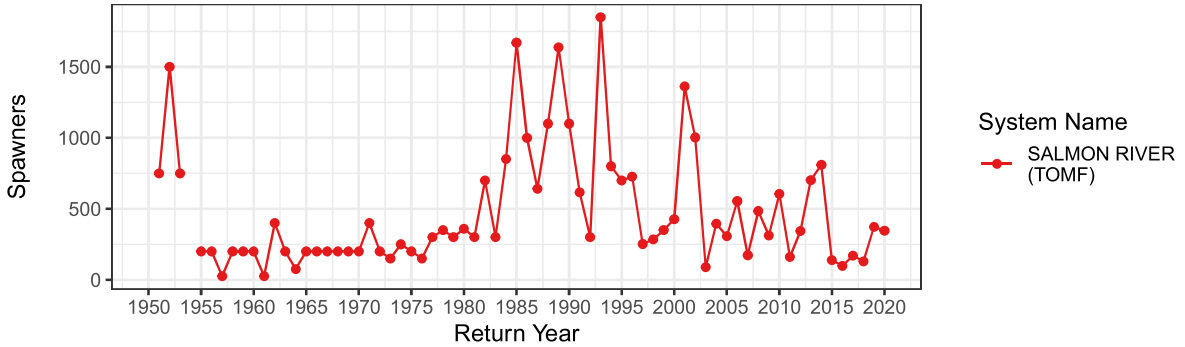
Portage Creek (Fraser)

NA

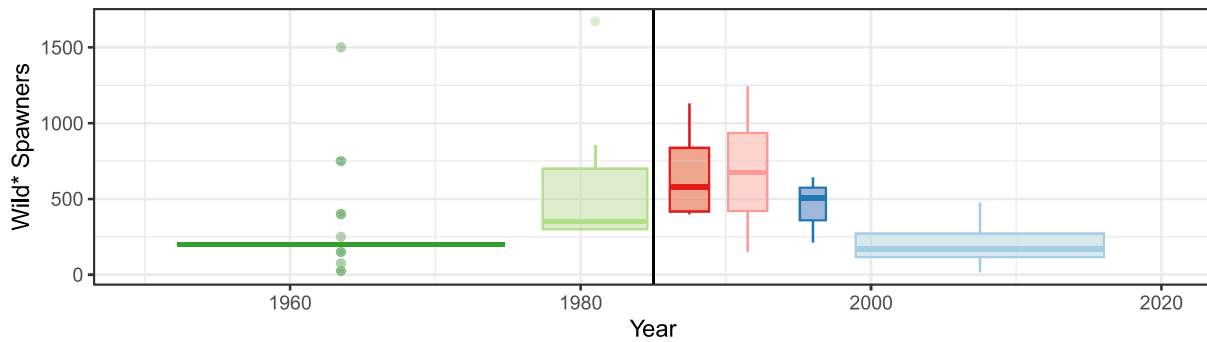
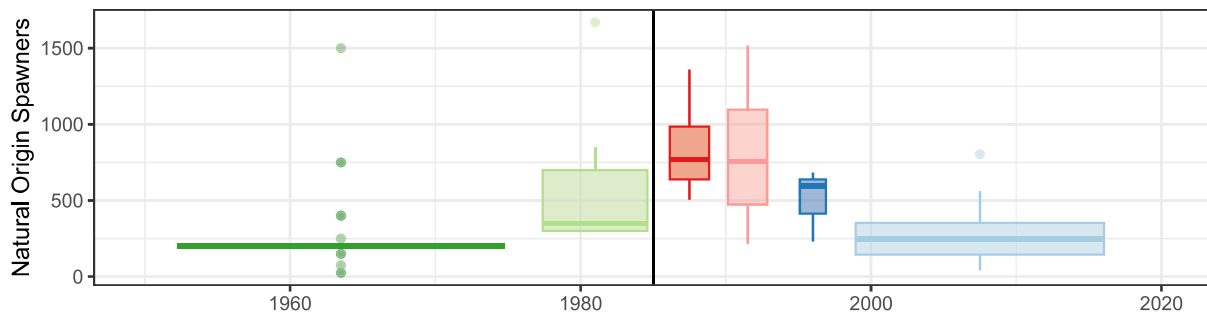
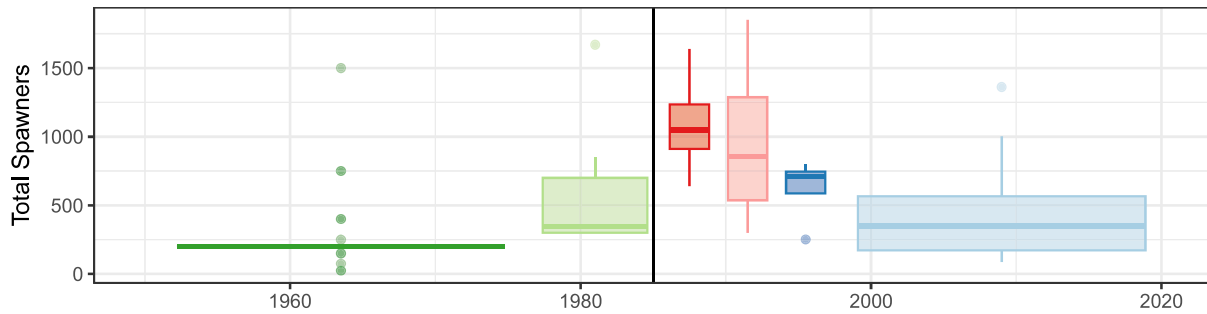
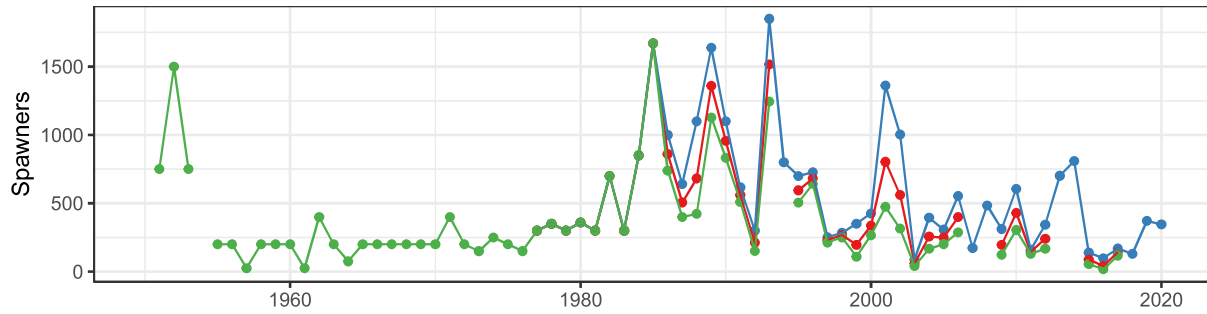


Mark Type
● CWT
● Thermal

Salmon River/TOMF (Fraser)
SOUTH THOMPSON_SU_1.3



Total Spawners, Natural Origin Spawners, and Wild Spawners
 SALMON RIVER (TOMF) (Fraser)

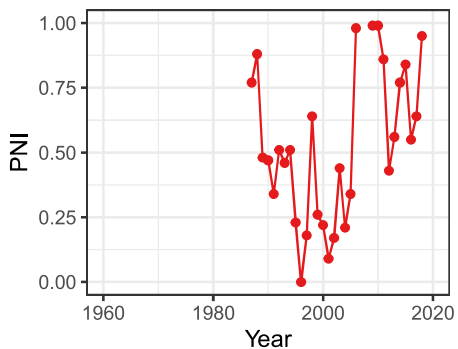
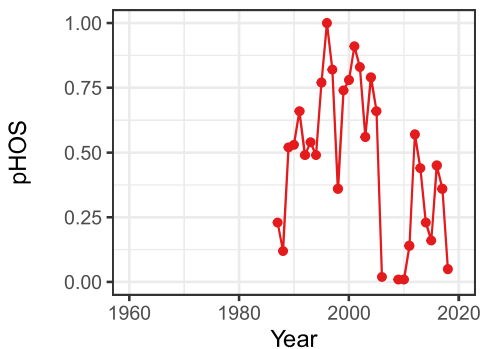
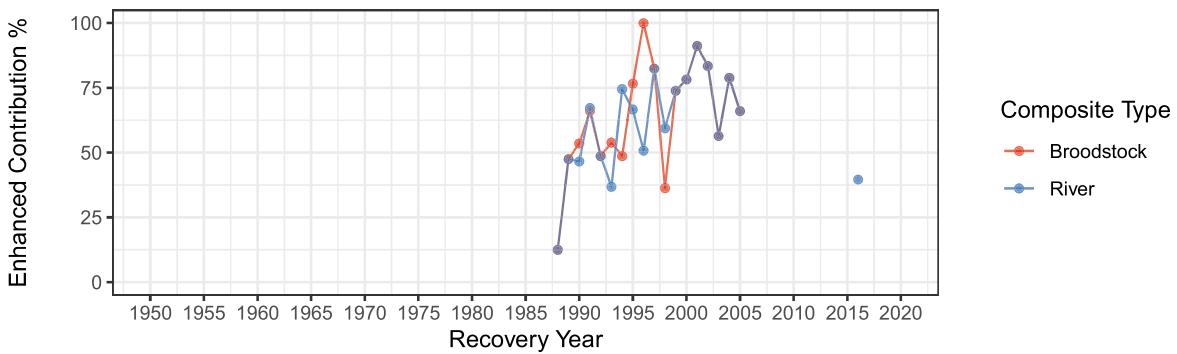
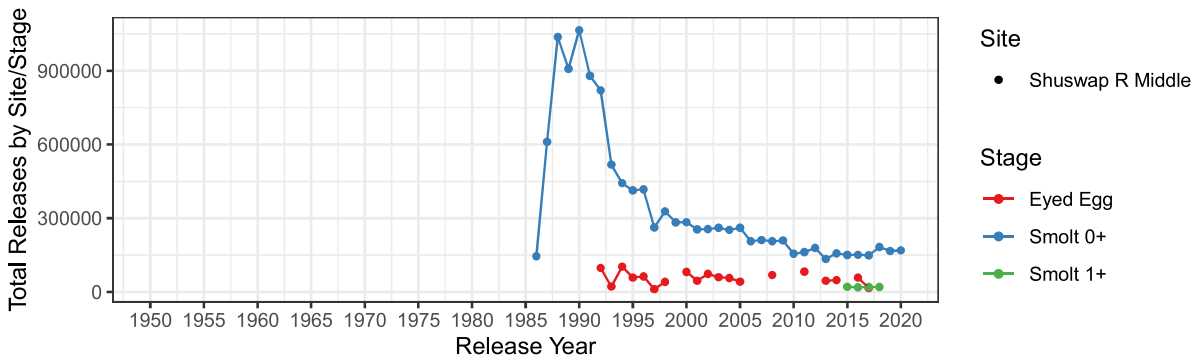
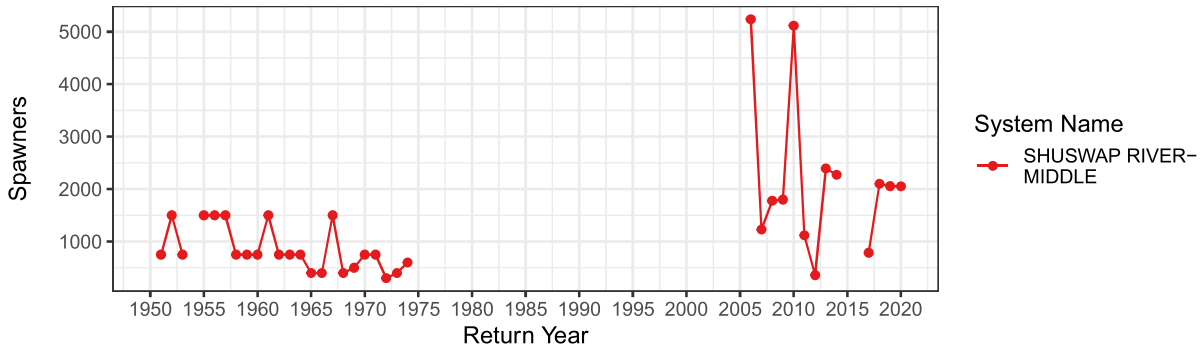


Spawners — Natural Origin — Total — Wild

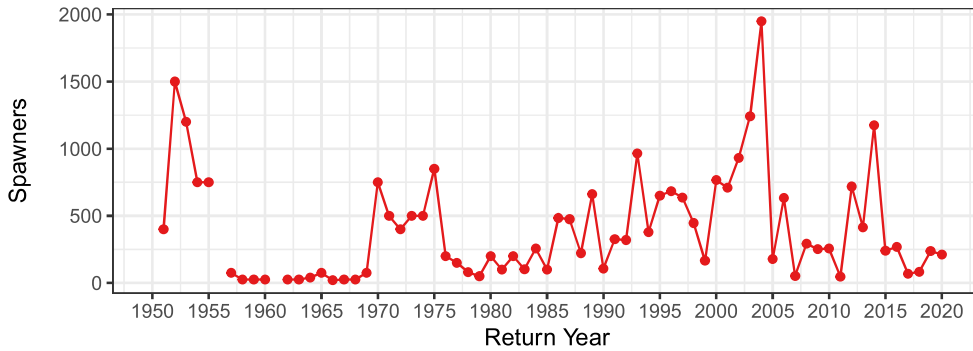
Period

- Gen3
- Post Gen3
- Gen1
- Pre
- Pre 2GL
- Gen2

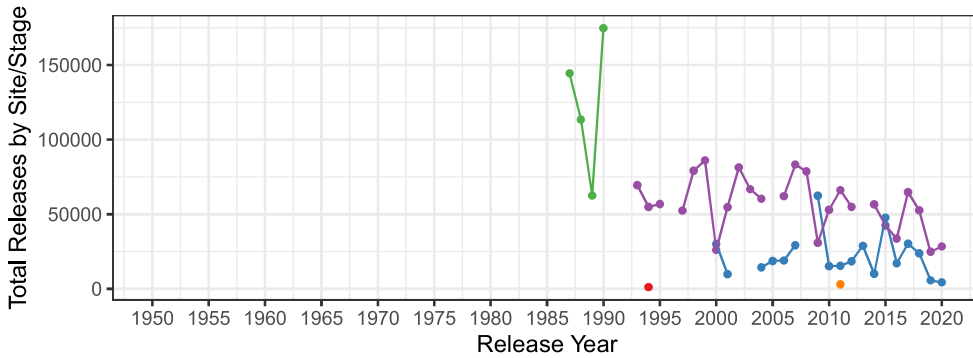
Shuswap River–Middle (Fraser)
SHUSWAP RIVER_SU_0.3



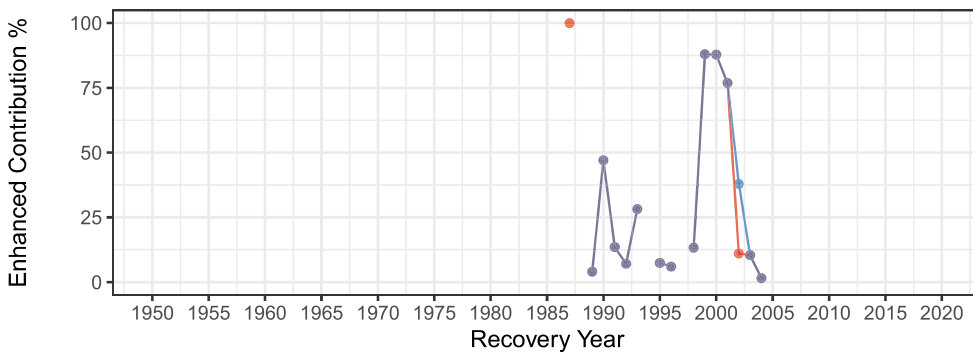
Spius Creek (Fraser)
LOWER THOMPSON_SP_1.2



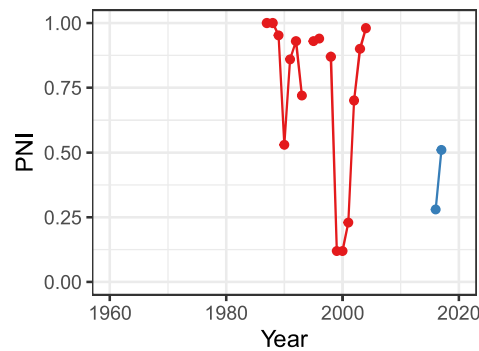
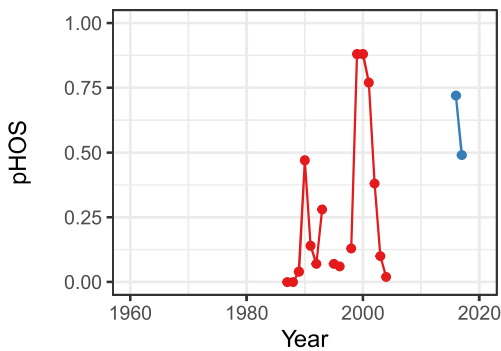
System Name
—•— SPIUS CREEK



Stage
—•— Eyed Egg
—•— Fed Fry
—•— Smolt 0+
—•— Smolt 1+
—•— Unfed
Site
• Spius Cr

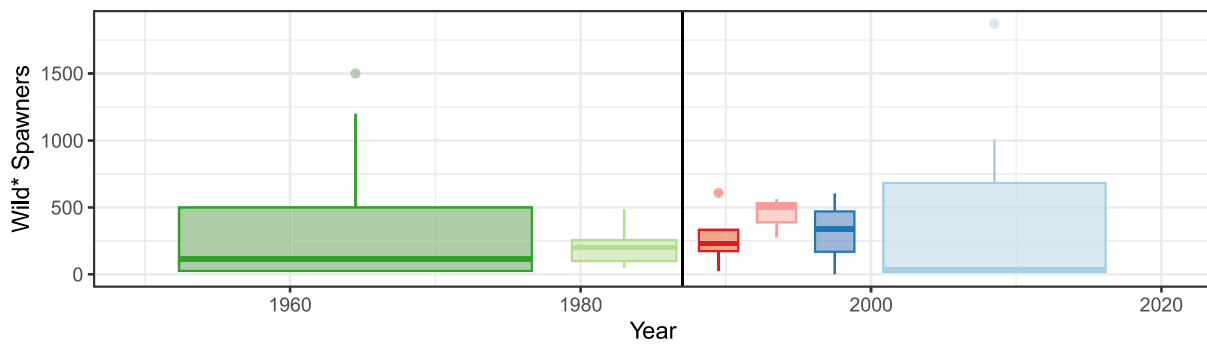
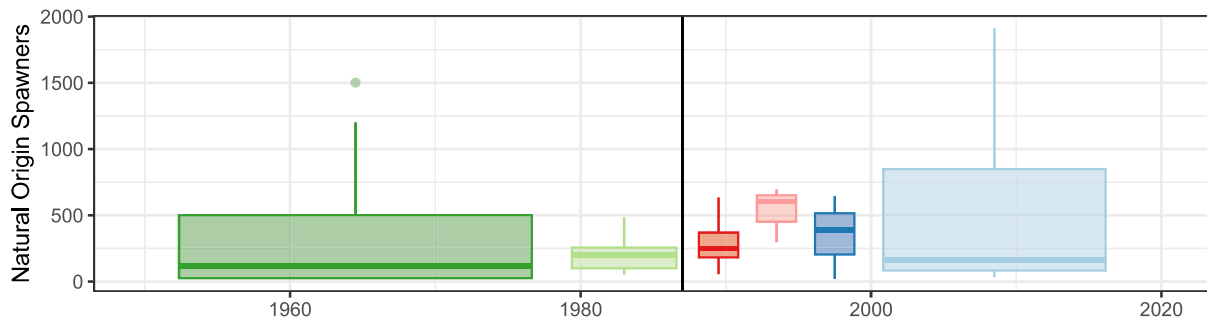
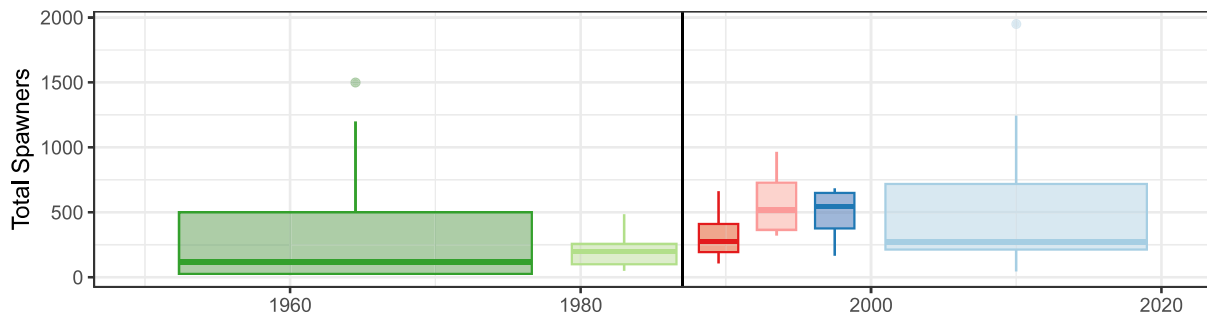
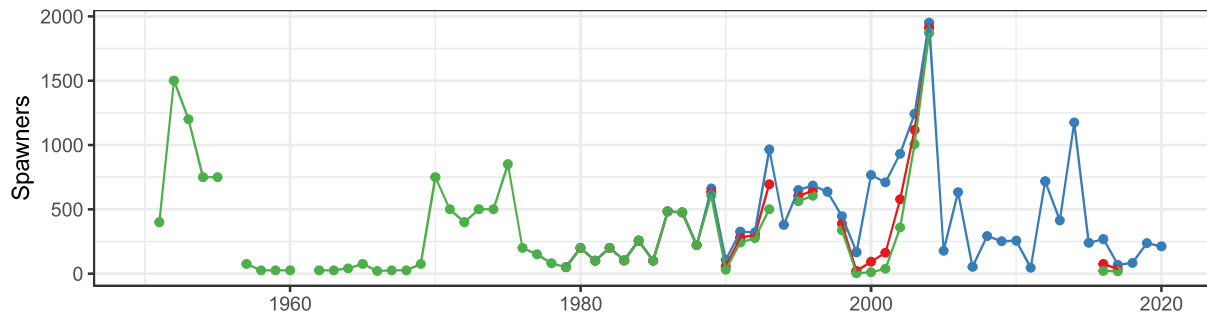


Composite Type
—•— Broodstock
—•— River



Mark Type
—•— CWT
—•— Thermal

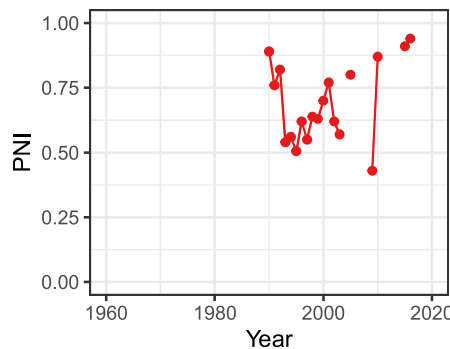
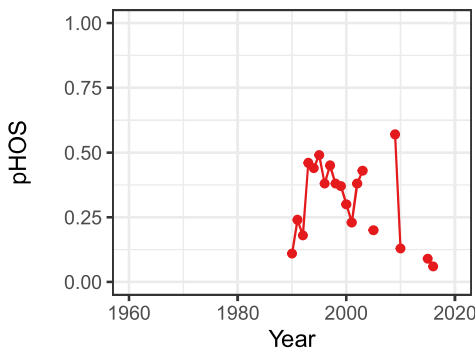
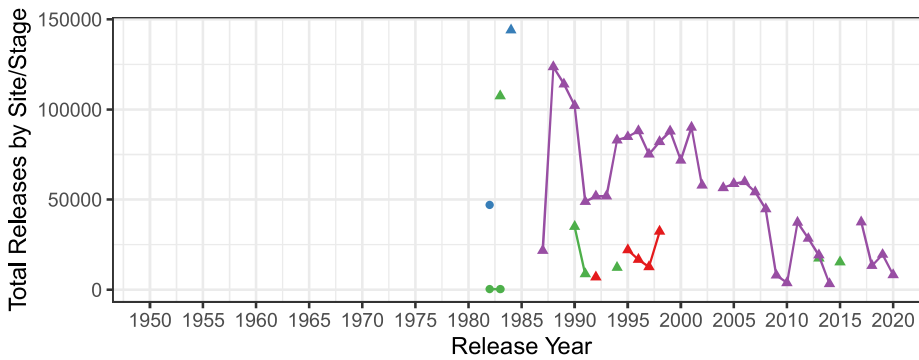
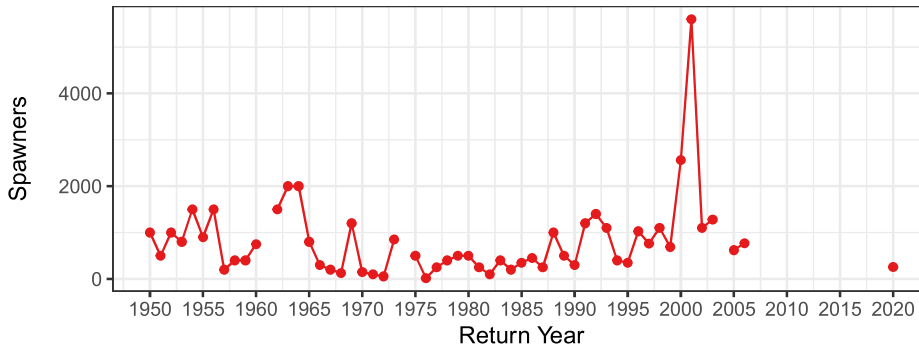
Total Spawners, Natural Origin Spawners, and Wild Spawners
SPIUS CREEK (Fraser)



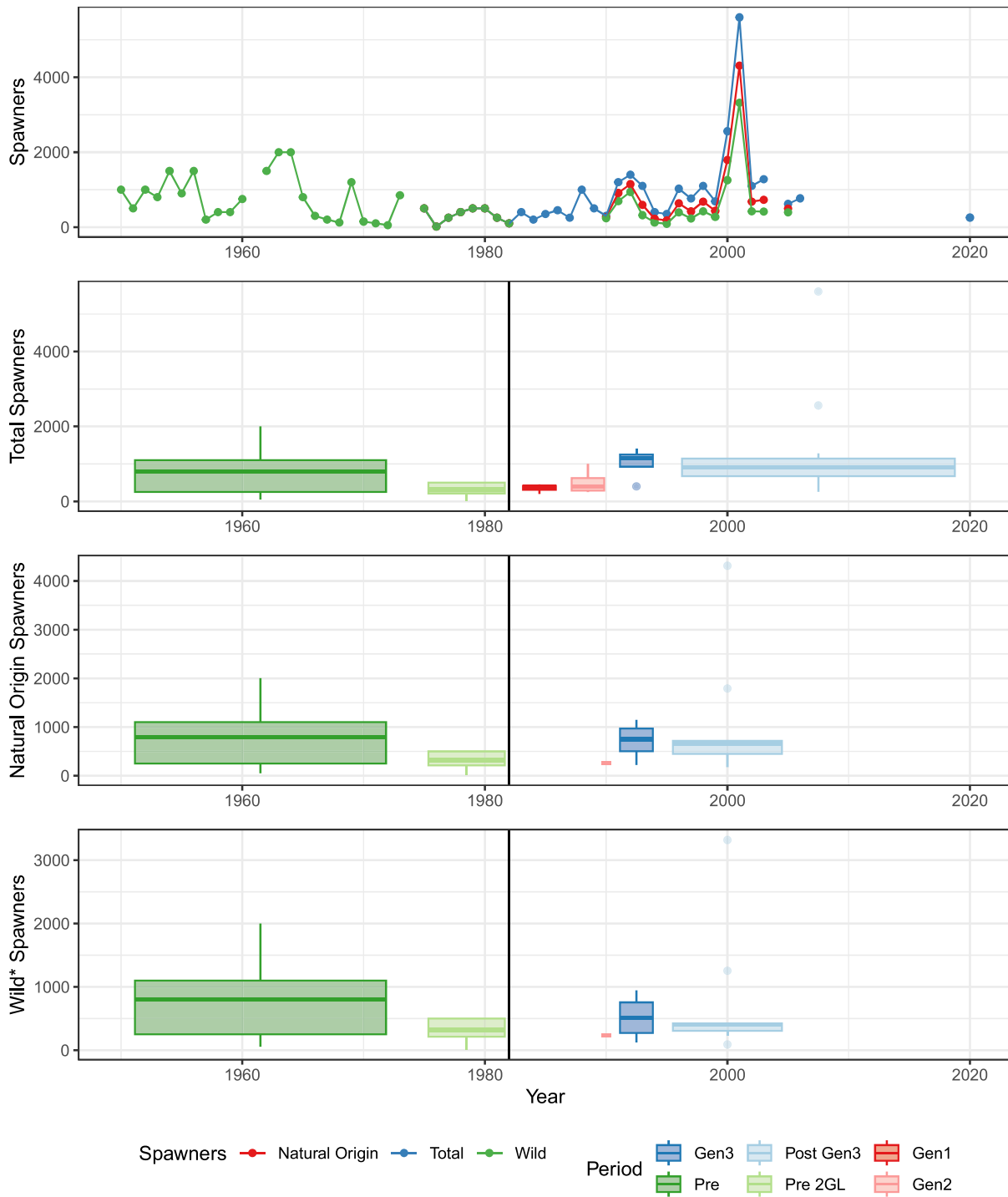
Spawners — Natural Origin — Total — Wild

Period: Gen3, Post Gen3, Gen1, Pre, Pre 2GL, Gen2

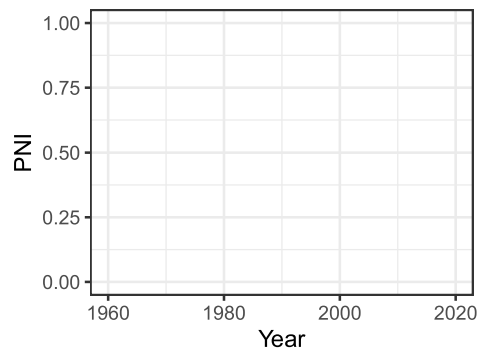
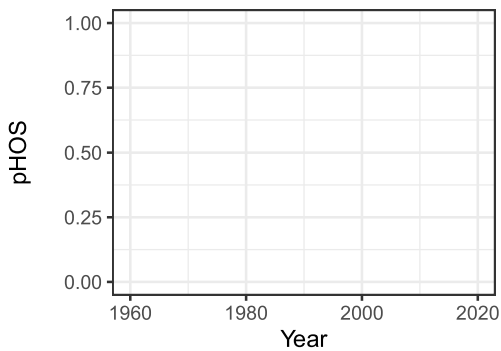
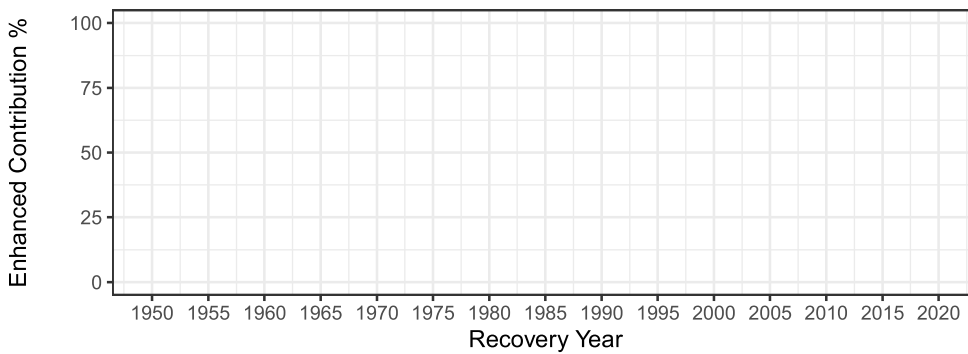
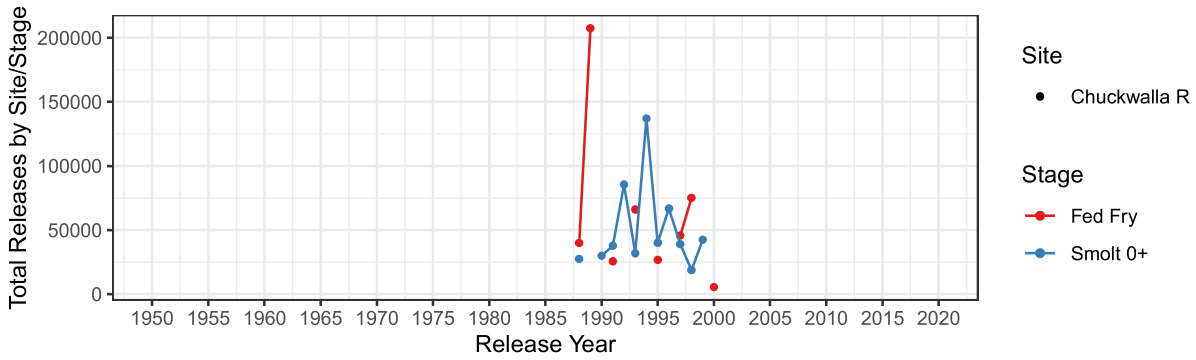
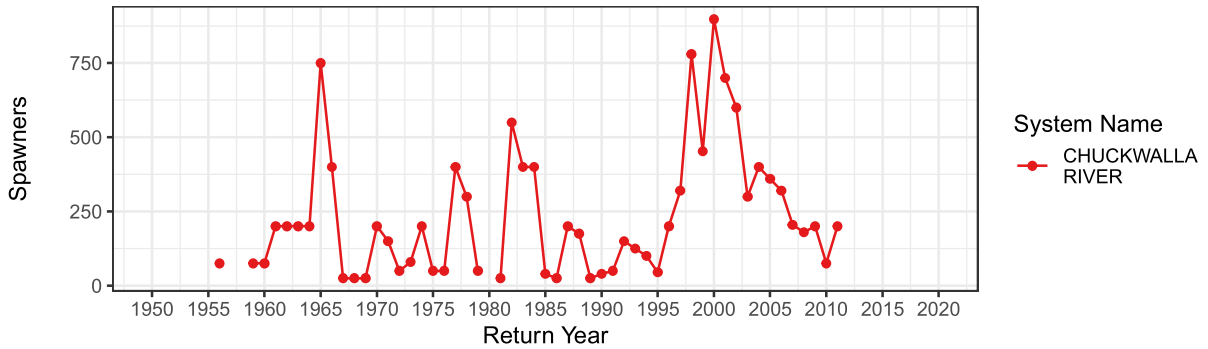
Bulkley River Upper (NCC)
UPPER BULKLEY RIVER



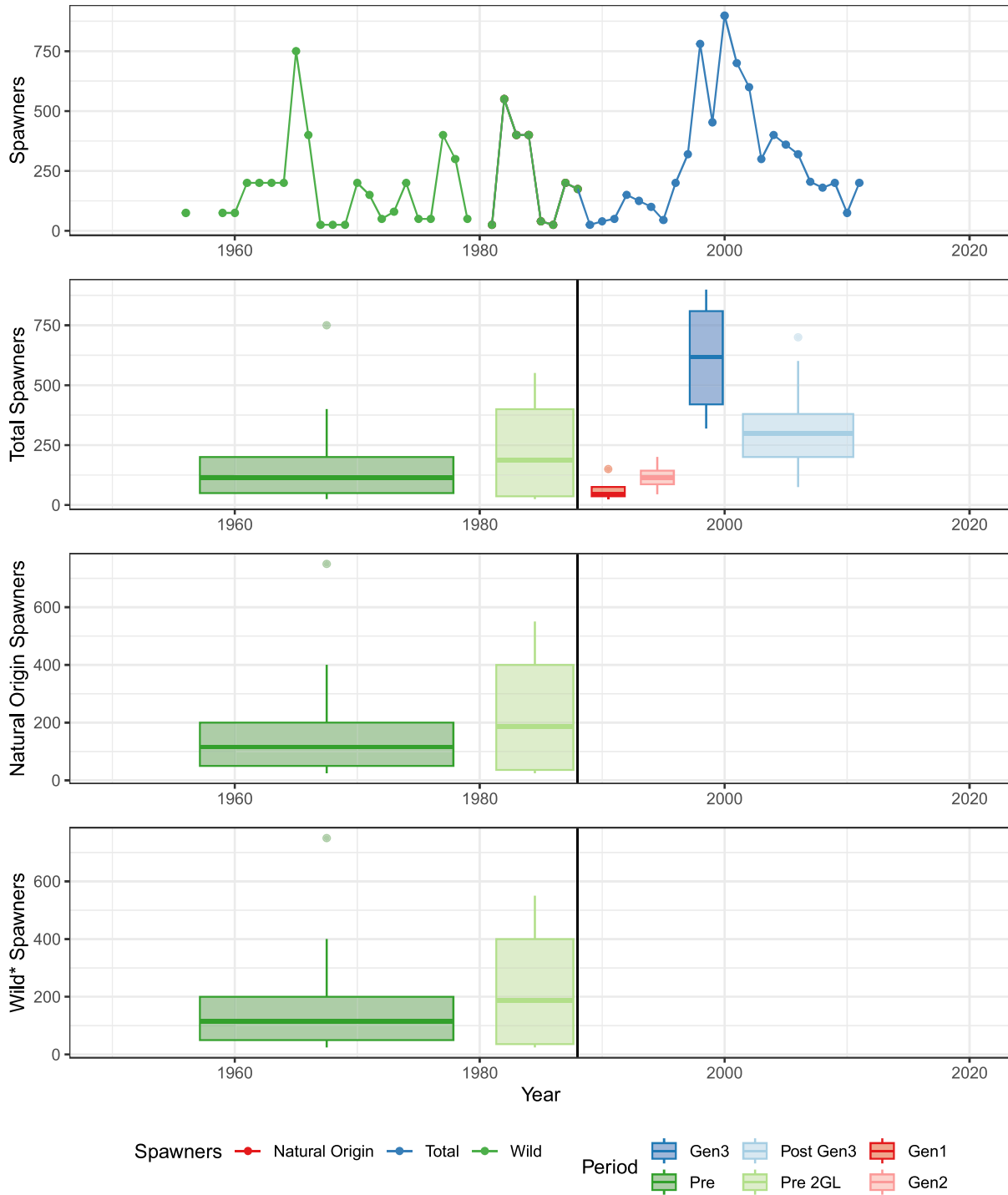
Total Spawners, Natural Origin Spawners, and Wild Spawners
 BULKLEY RIVER-UPPER (NCC)



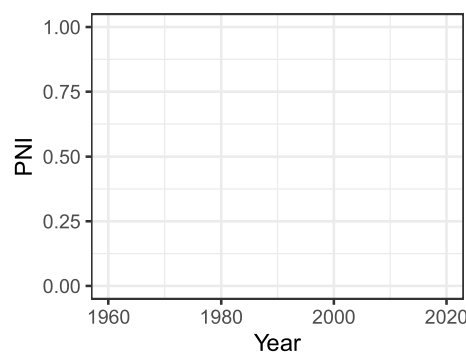
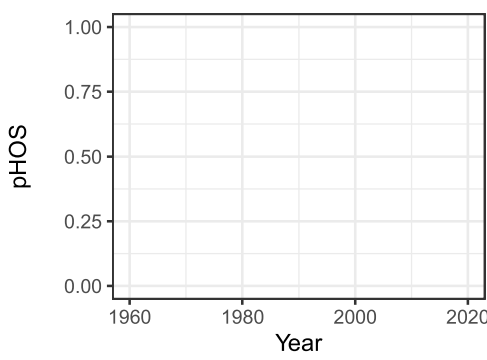
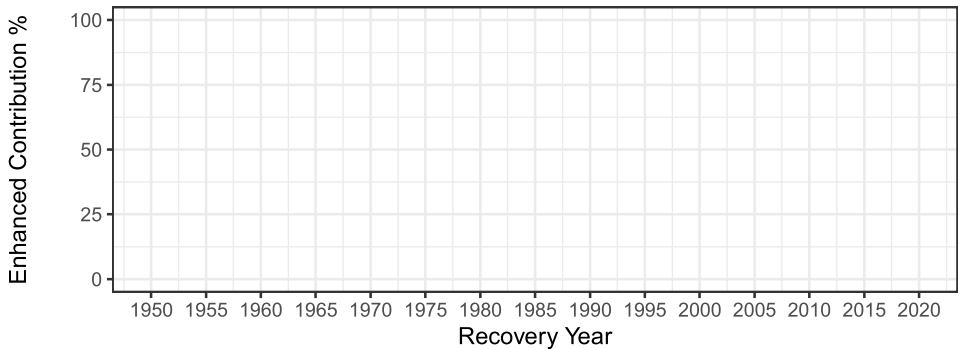
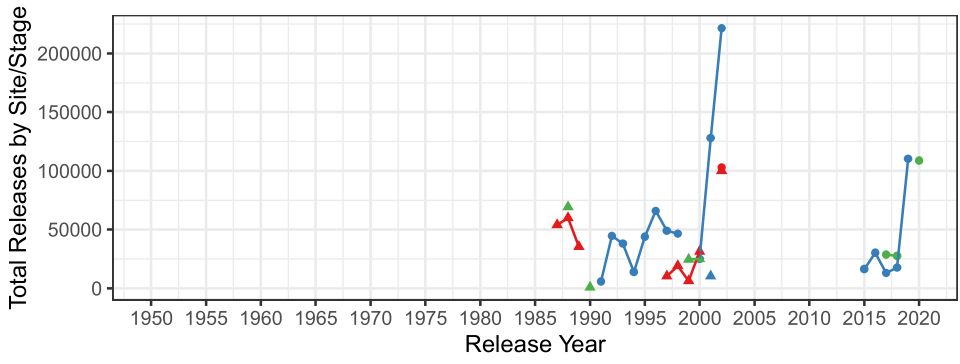
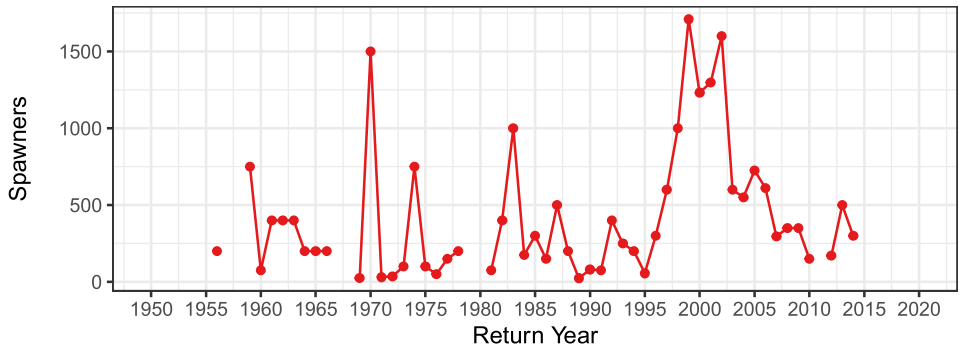
Chuckwalla River (NCC)
RIVERS INLET



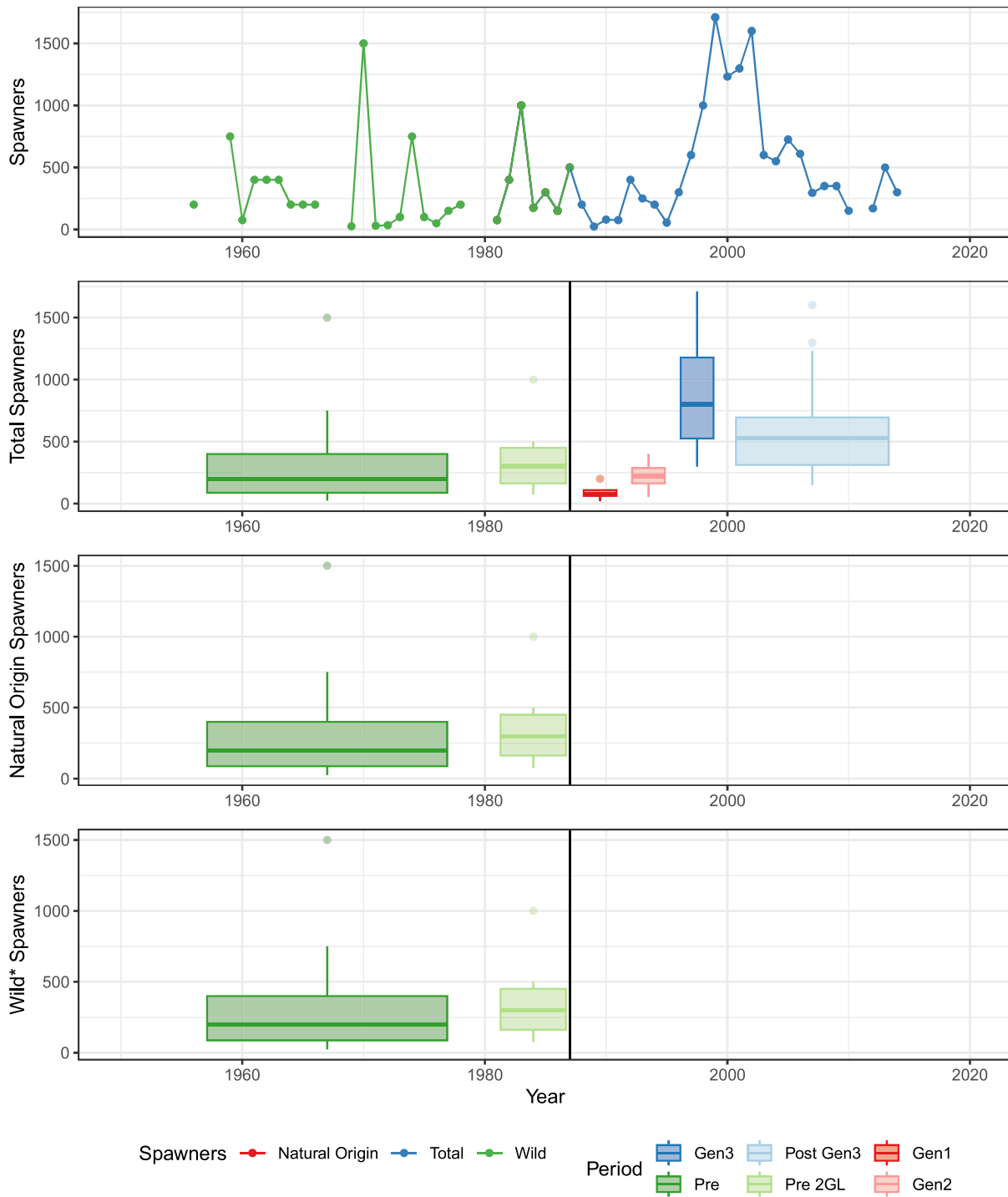
Total Spawners, Natural Origin Spawners, and Wild Spawners
CHUCKWALLA RIVER (NCC)



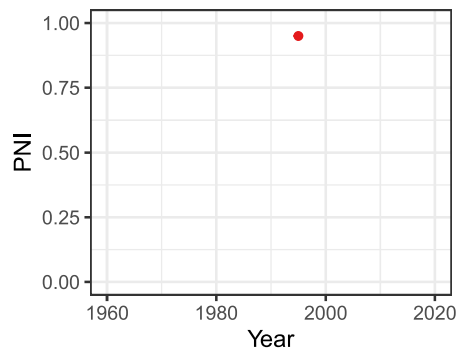
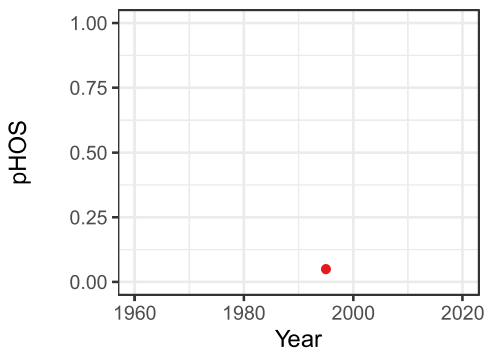
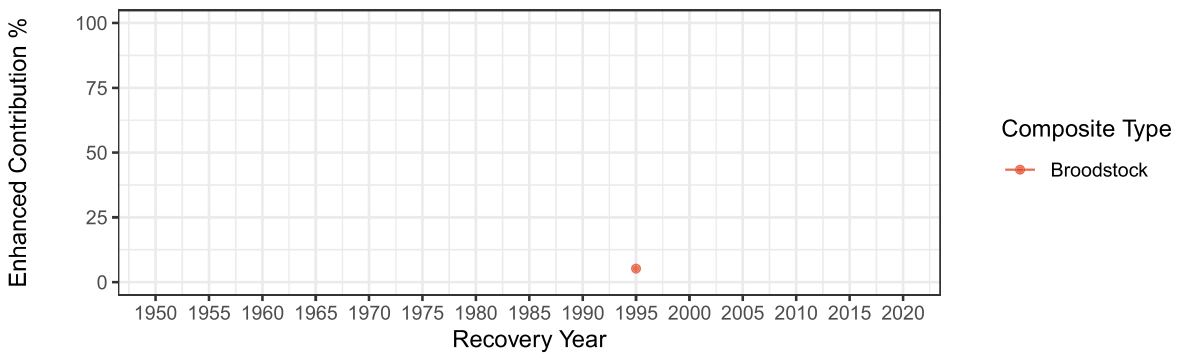
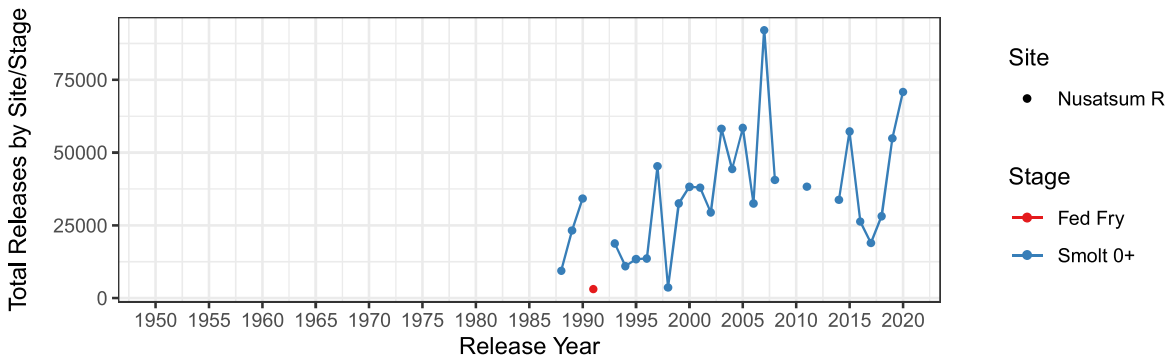
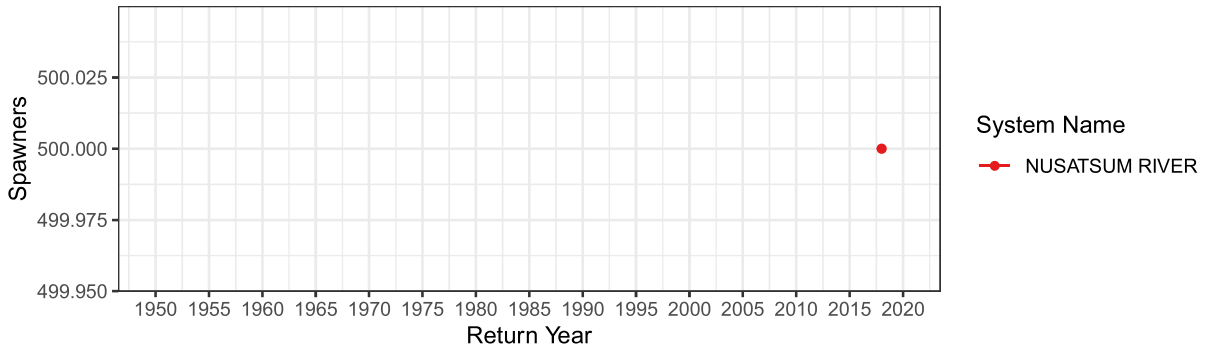
Kilbella River (NCC)
RIVERS INLET



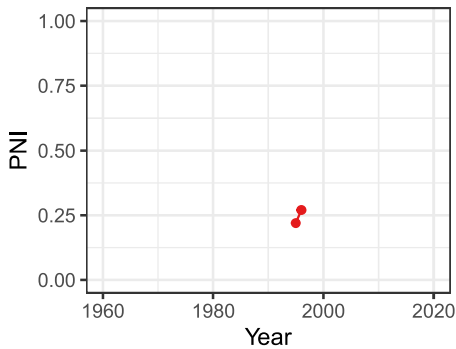
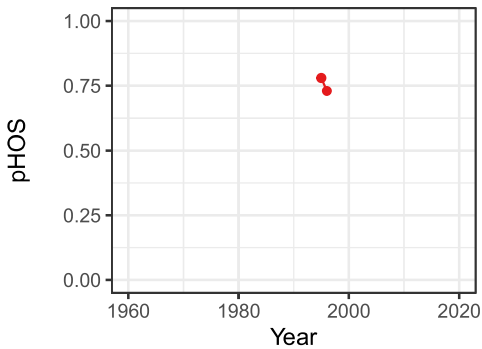
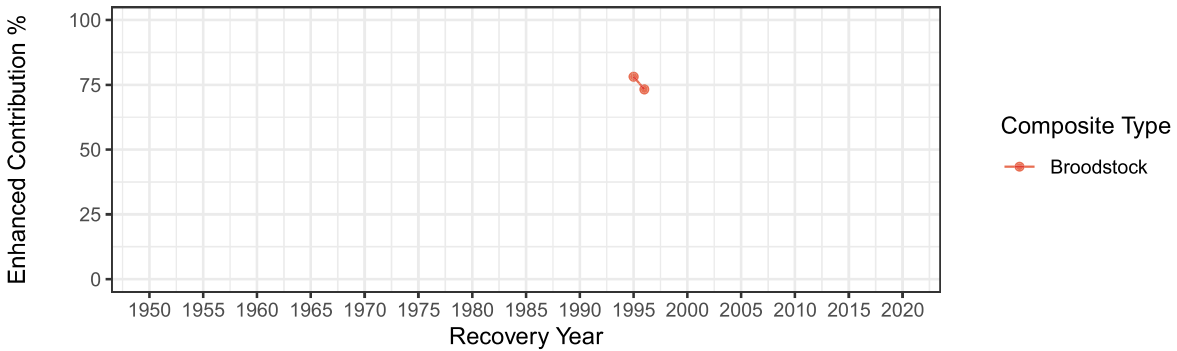
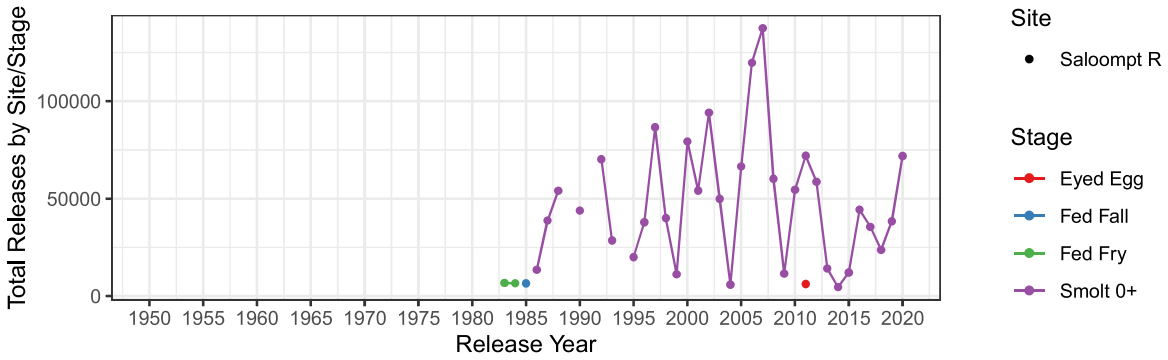
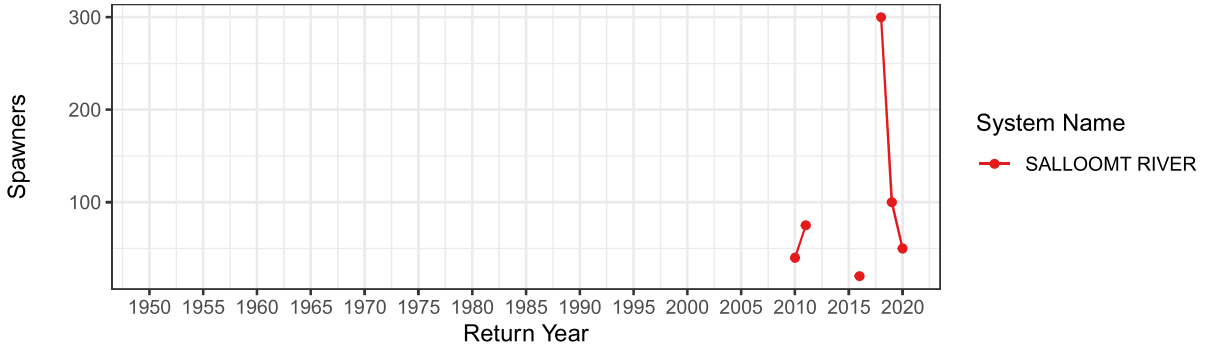
Total Spawners, Natural Origin Spawners, and Wild Spawners
KILBELLA RIVER (NCC)



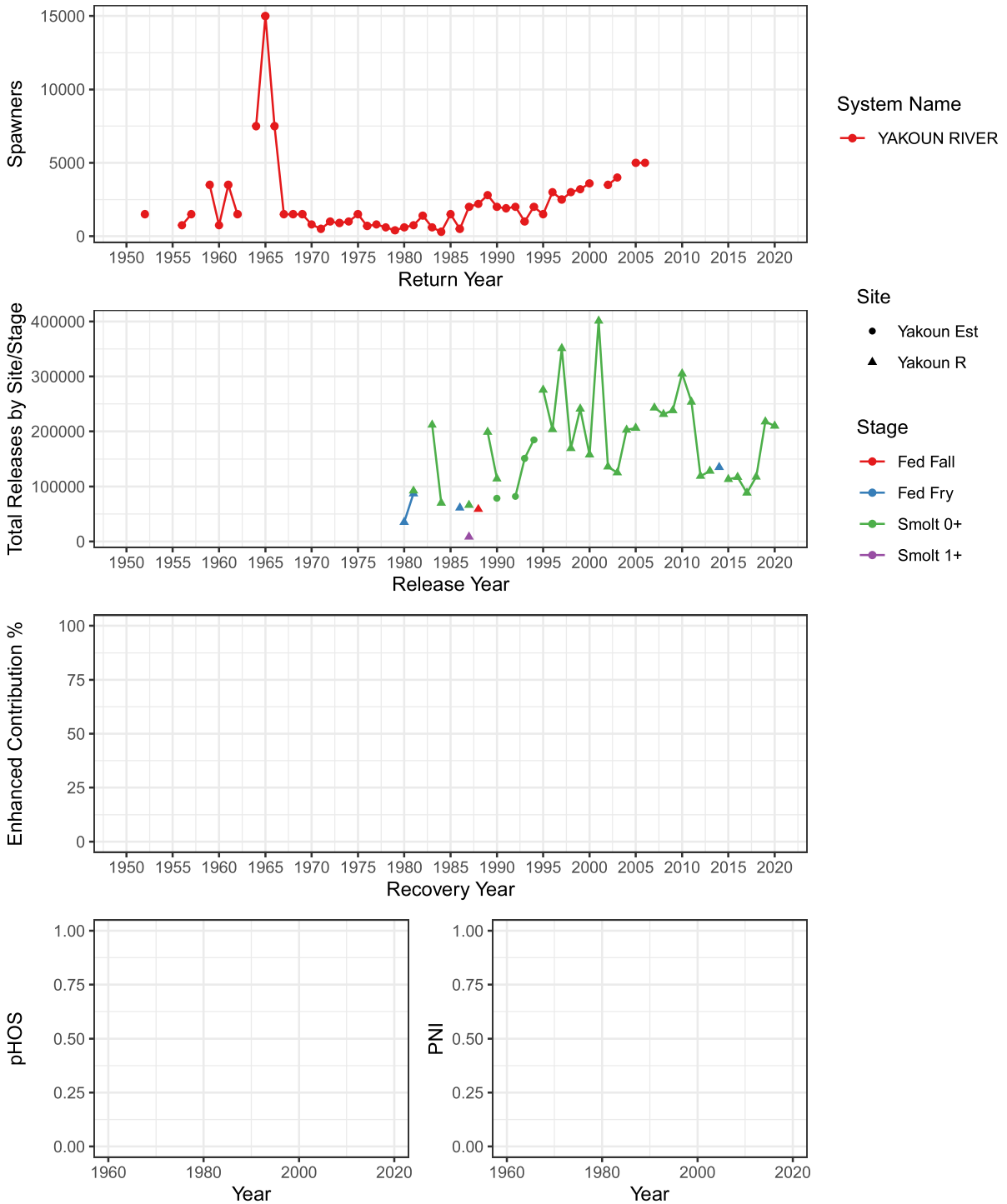
Nusatsum River (NCC)
 BELLA COOLA-BENTINCK



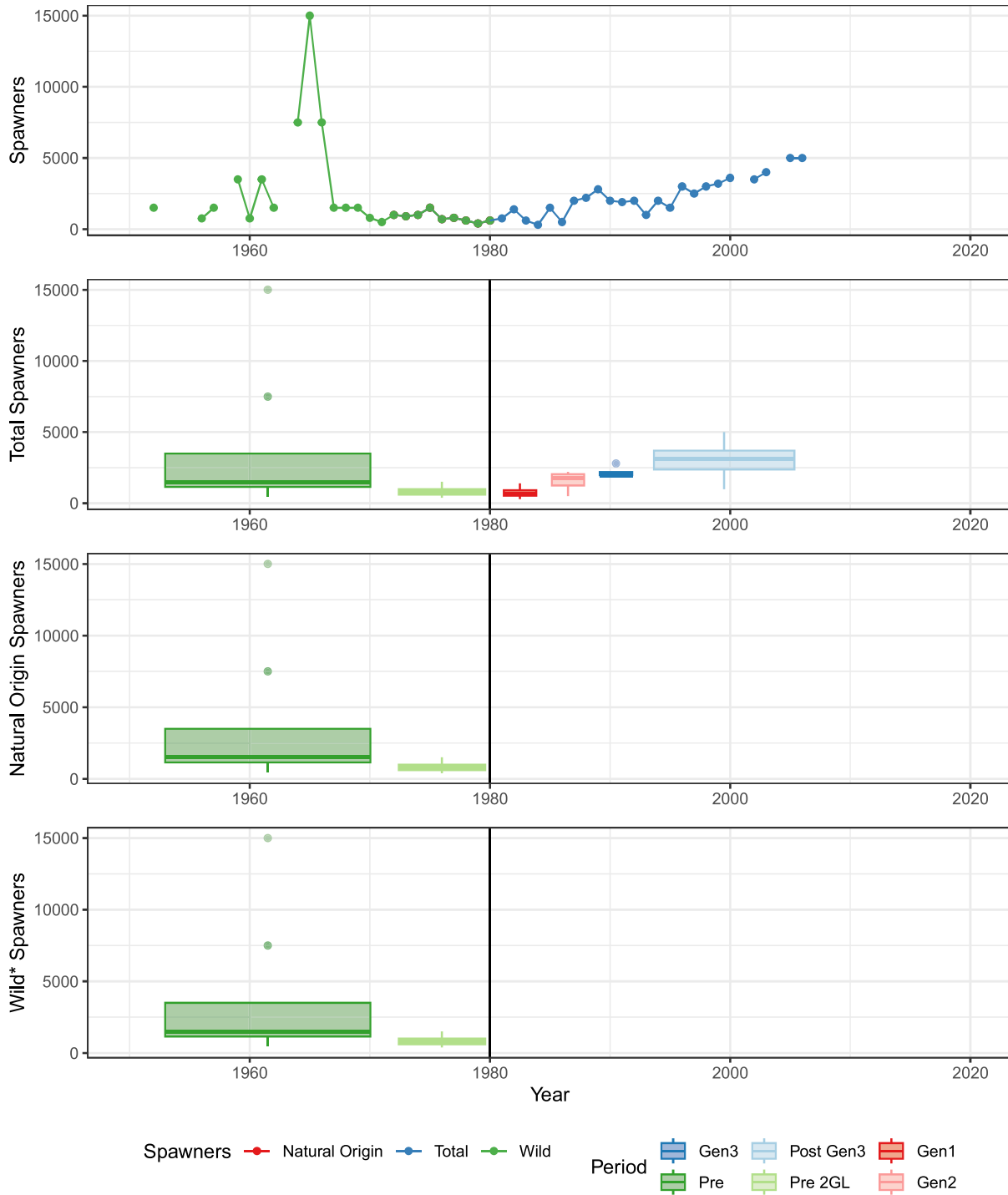
Salloomt River (NCC)
BELLA COOLA-BENTINCK



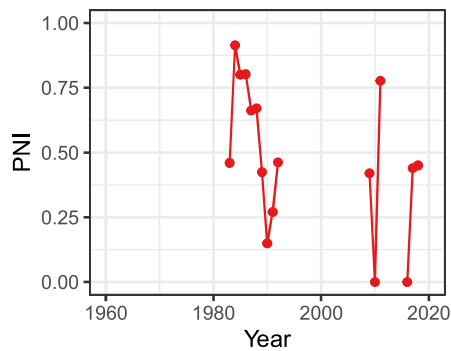
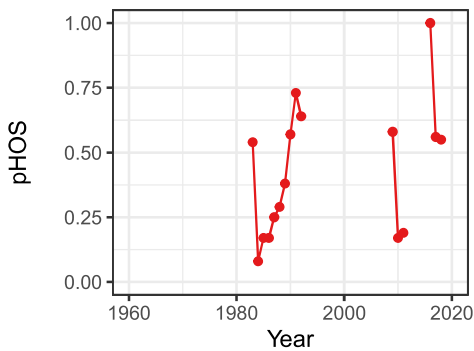
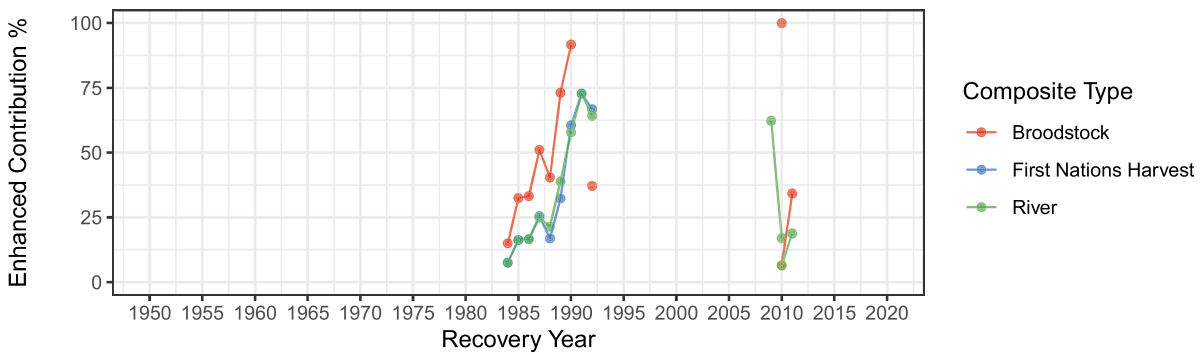
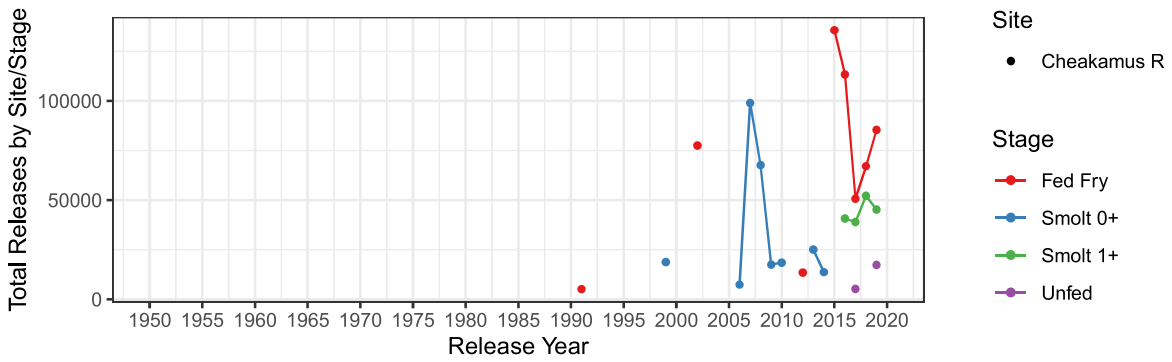
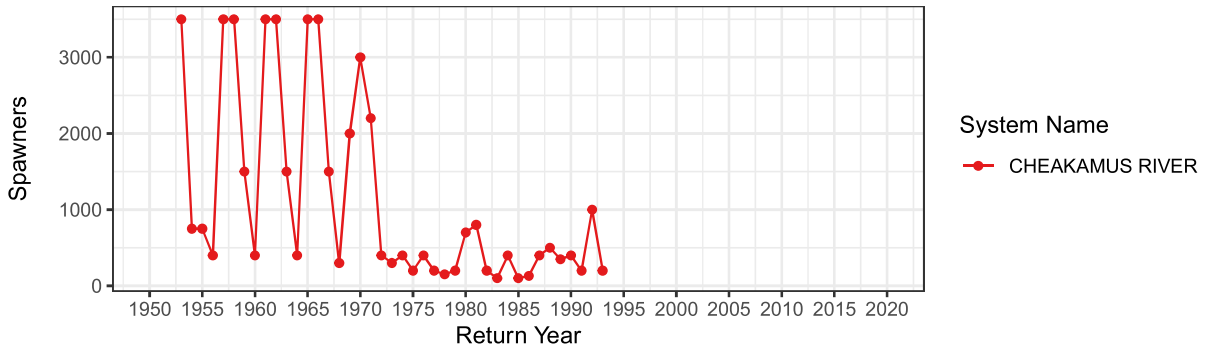
Yakoun River (NCC)
HAIDA GWAII-NORTH



Total Spawners, Natural Origin Spawners, and Wild Spawners
YAKOUN RIVER (NCC)

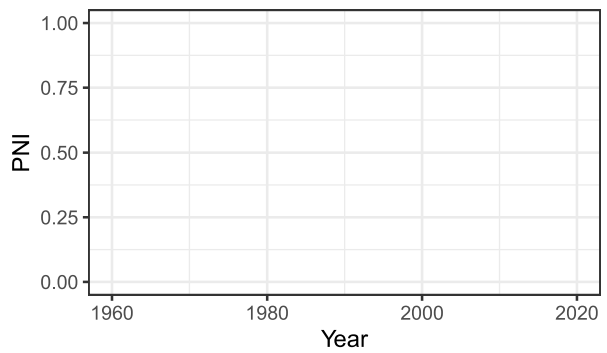
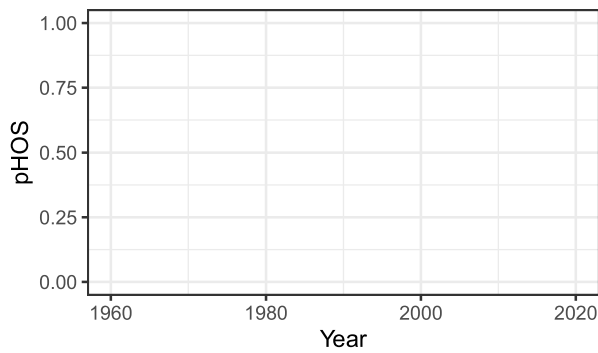
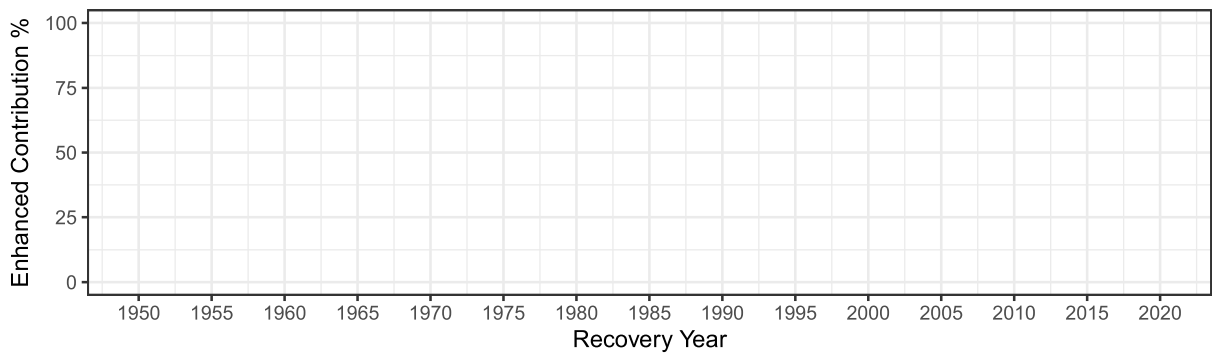
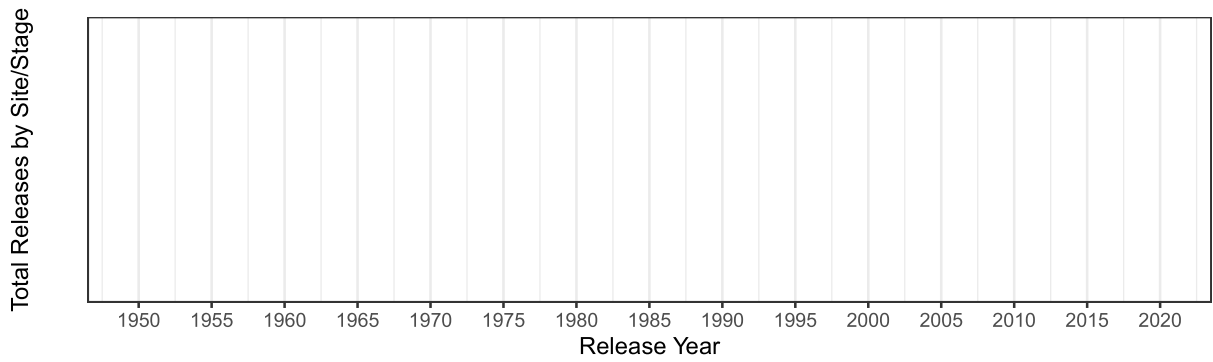
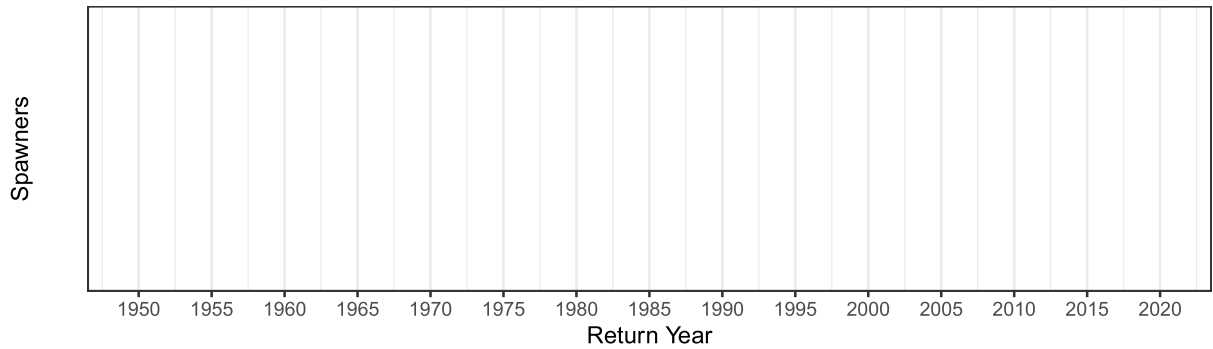


Cheakamus River (SOG)
SOUTHERN MAINLAND-GEORGIA STRAIT_FA_0.x

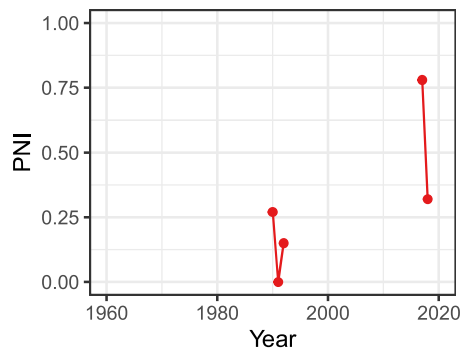
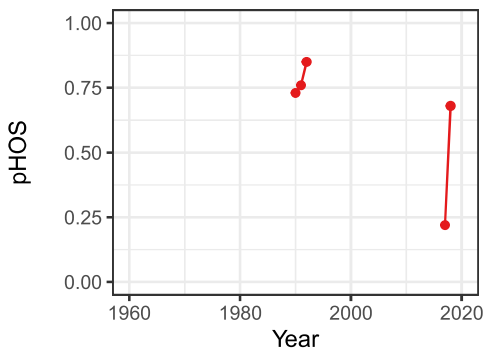
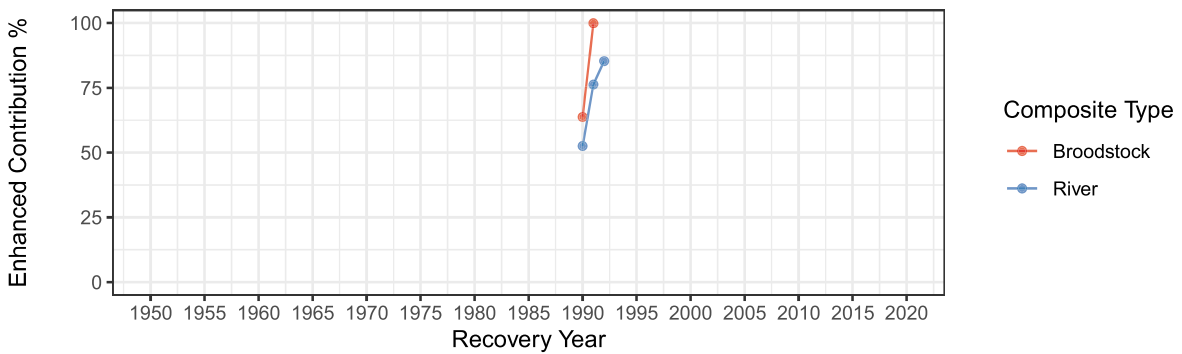
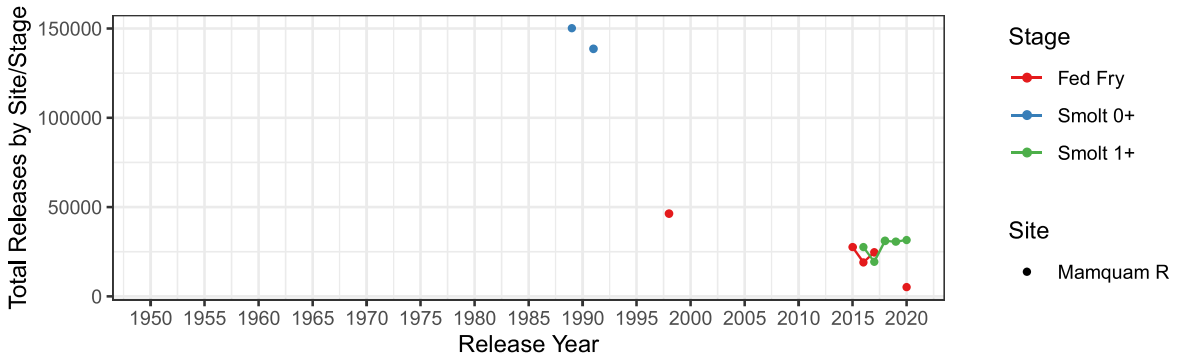
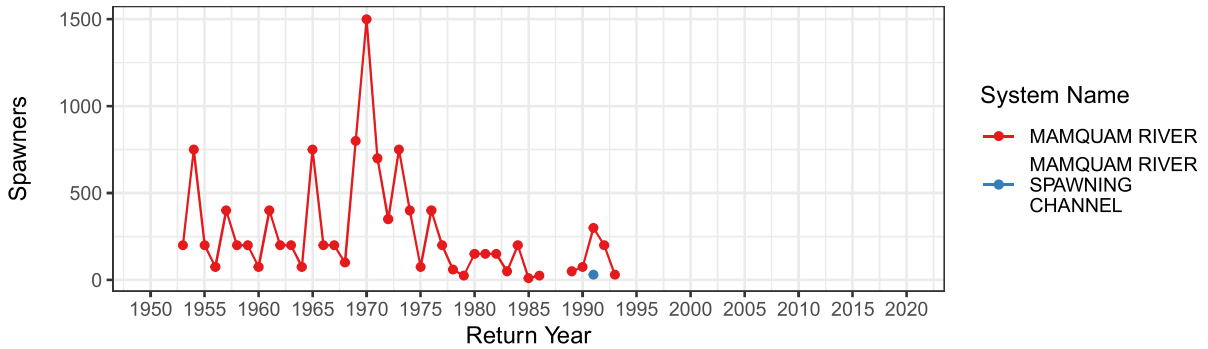


Elaho River (SOG)

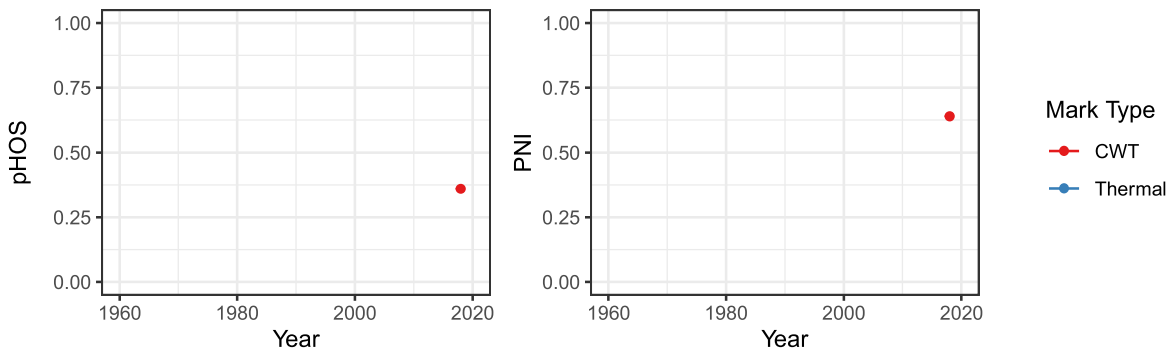
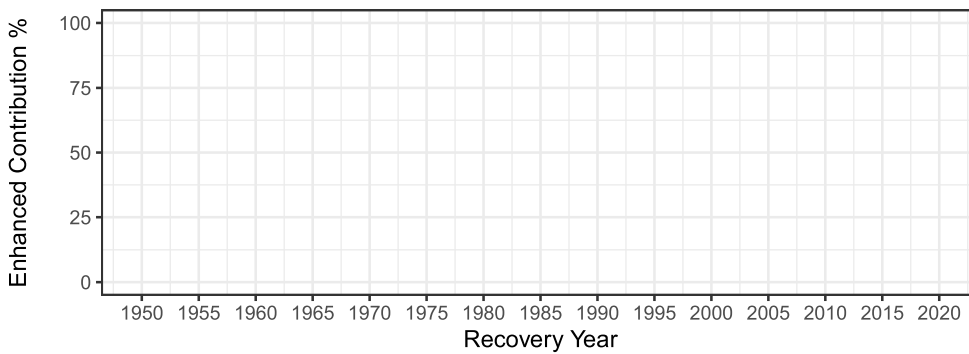
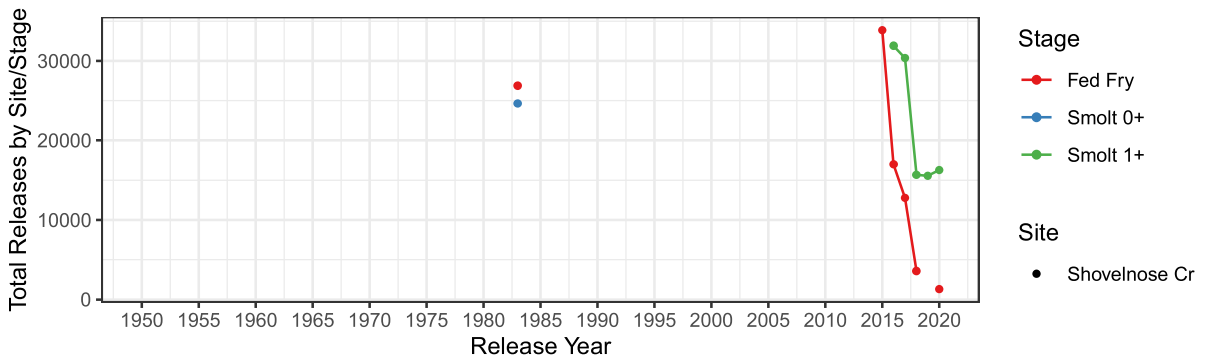
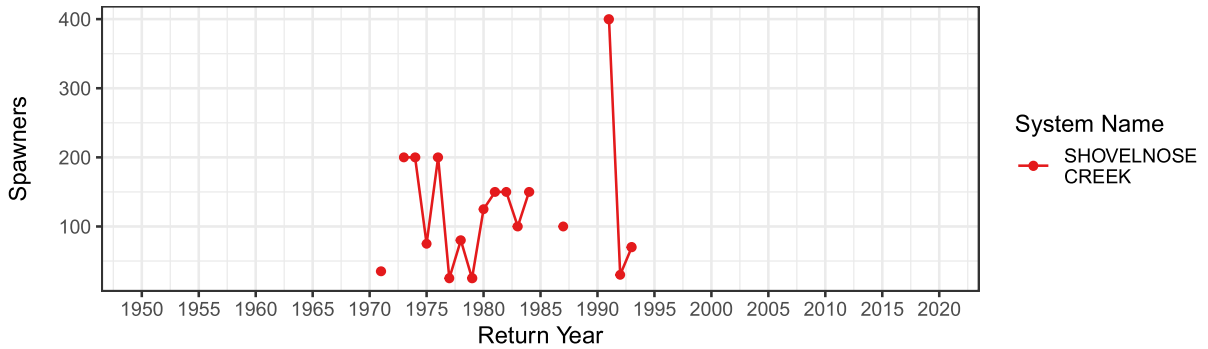
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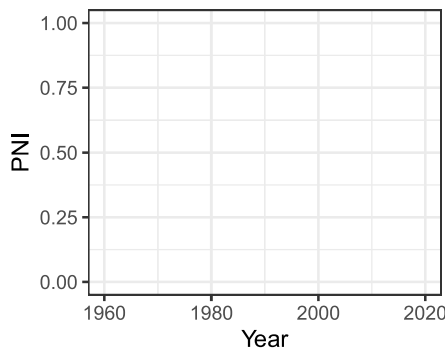
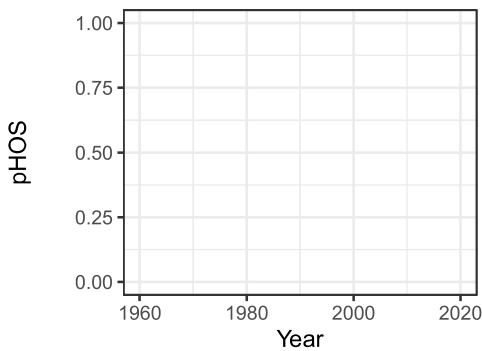
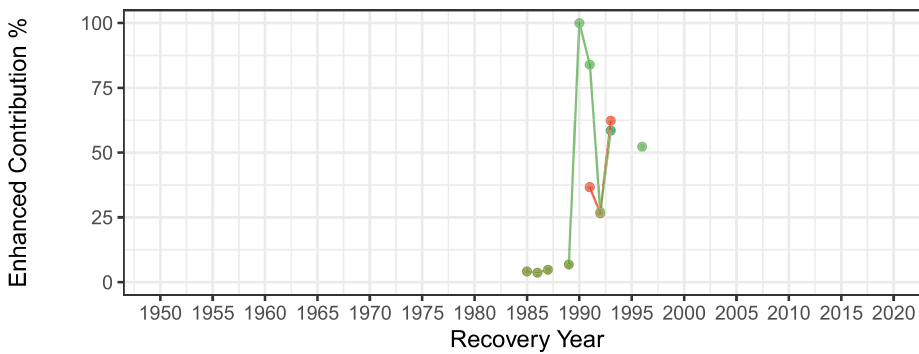
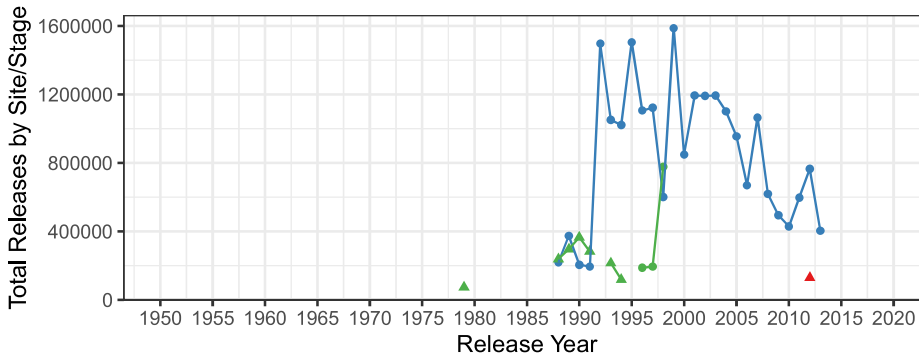
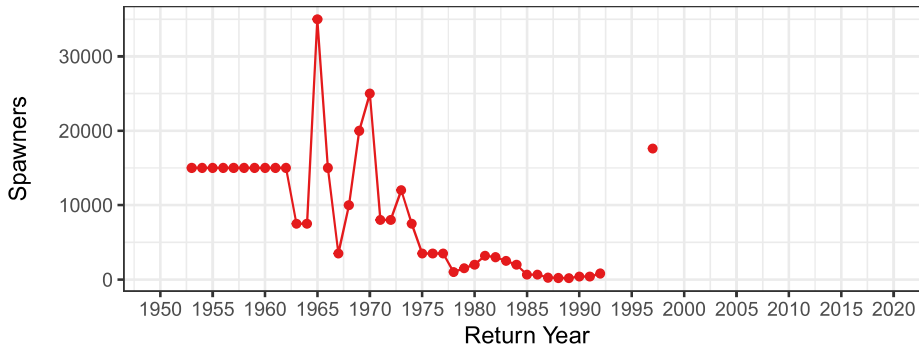
Mamquam River (SOG)
SOUTHERN MAINLAND-GEORGIA STRAIT_FA_0.x



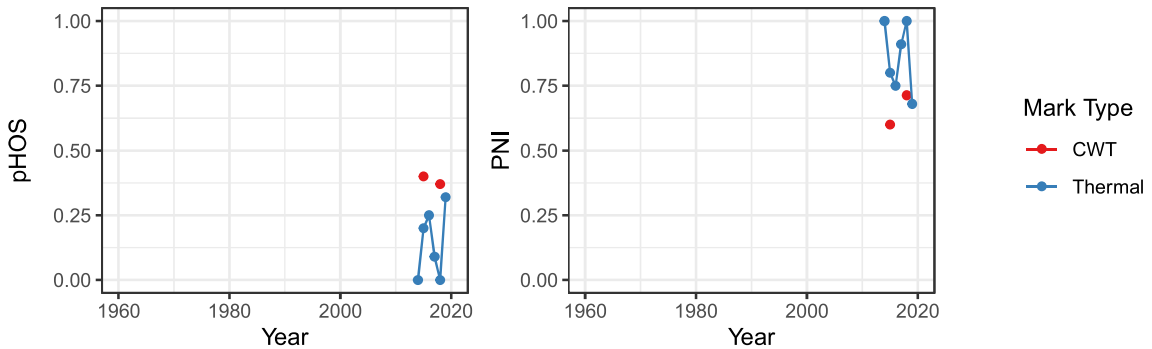
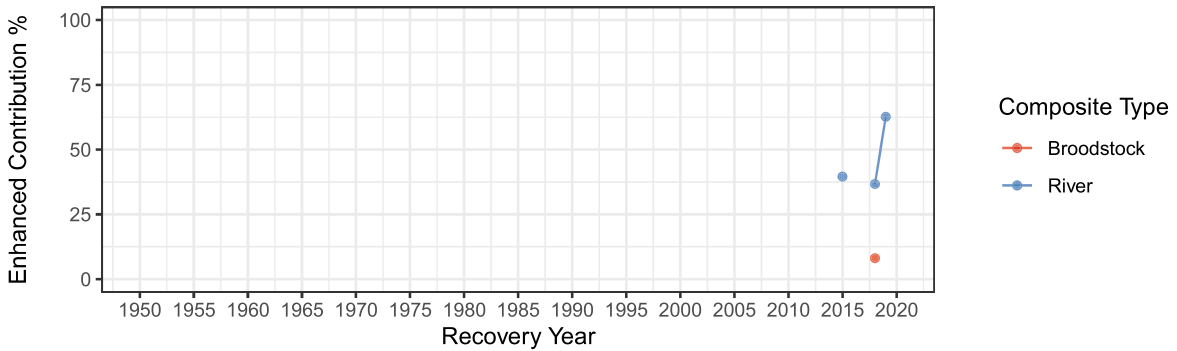
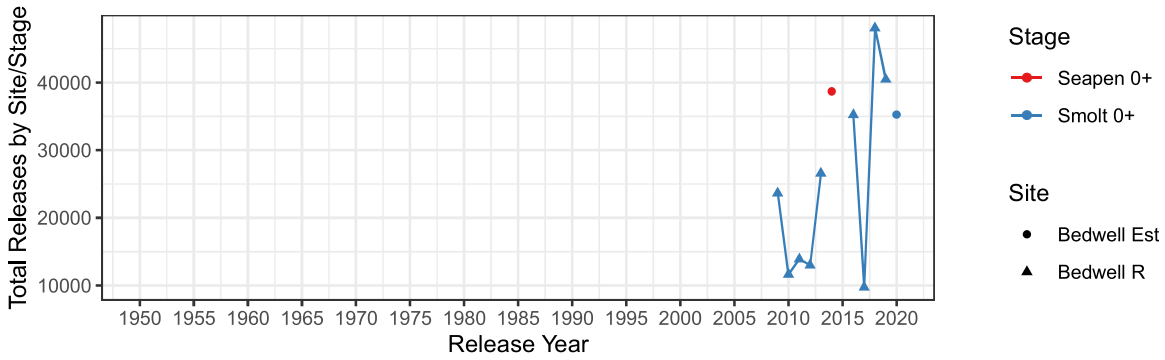
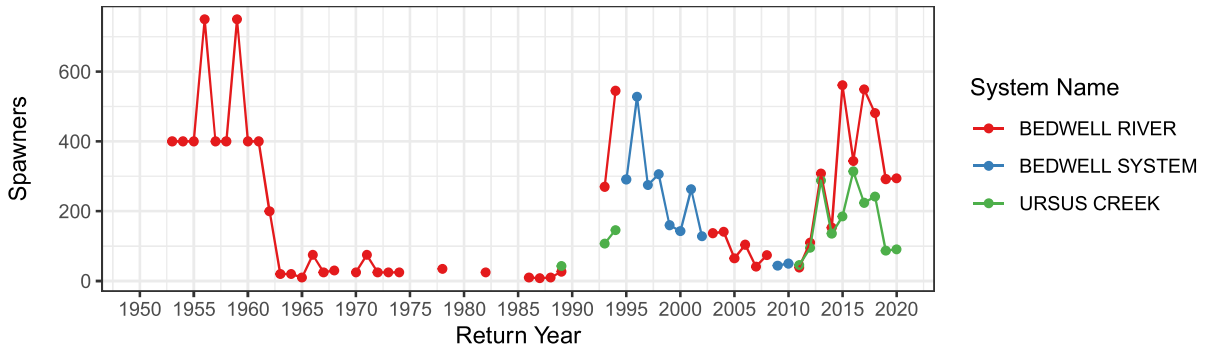
Shovelnose Creek (SOG)
SOUTHERN MAINLAND-GEORGIA STRAIT_FA_0.x



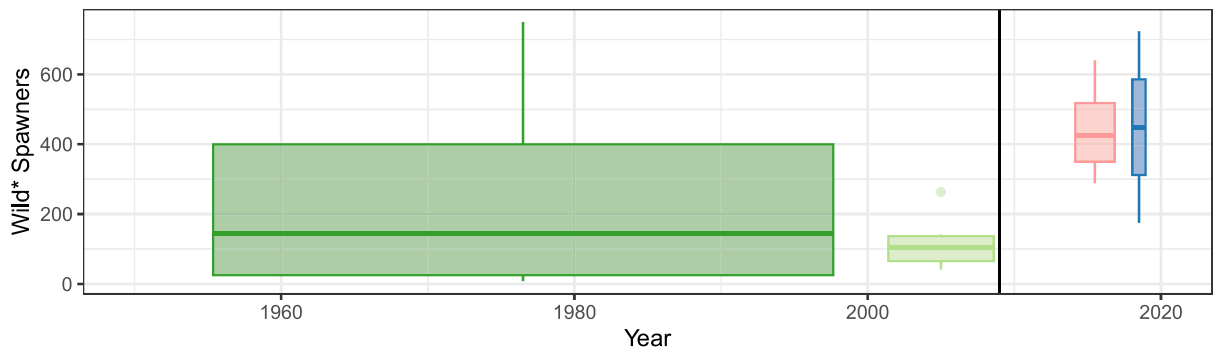
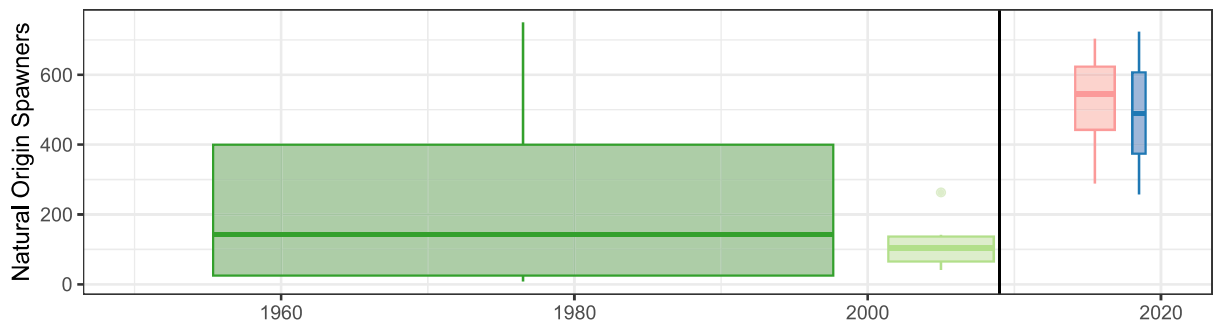
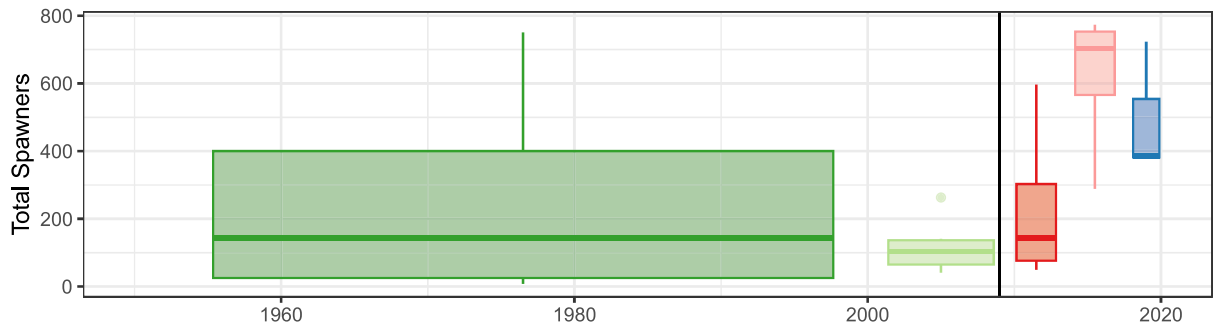
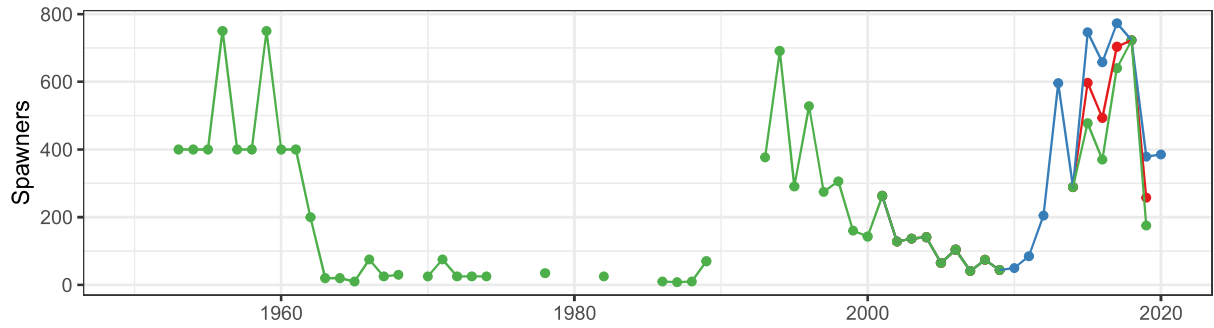
Squamish River (SOG)
SOUTHERN MAINLAND-GEORGIA STRAIT_FA_0.x



Bedwell River (WCVI)
WEST VANCOUVER ISLAND-SOUTH_FA_0.x

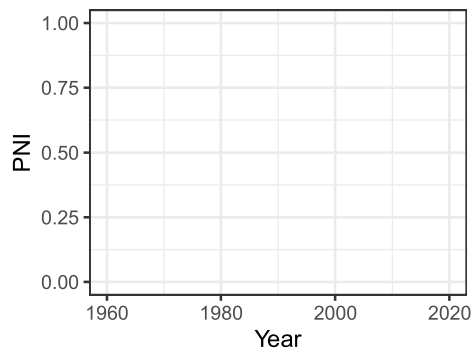
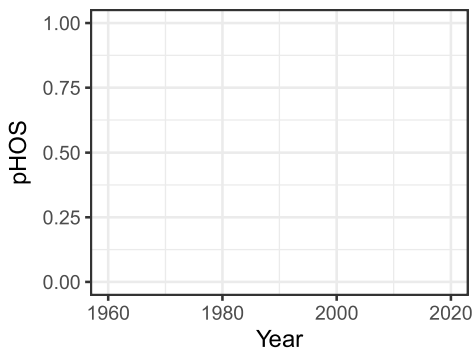
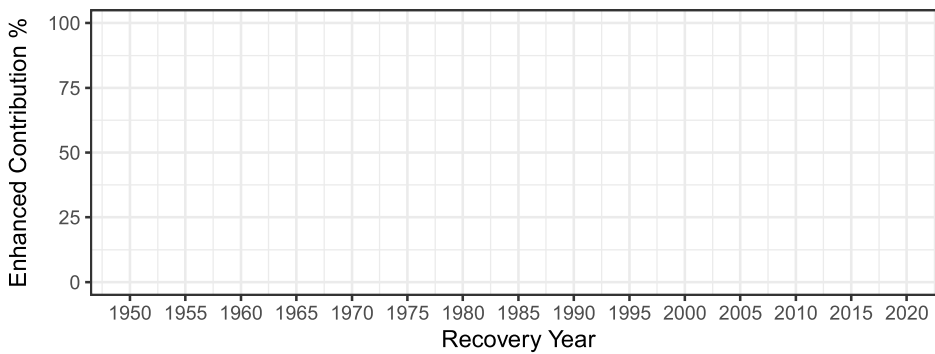
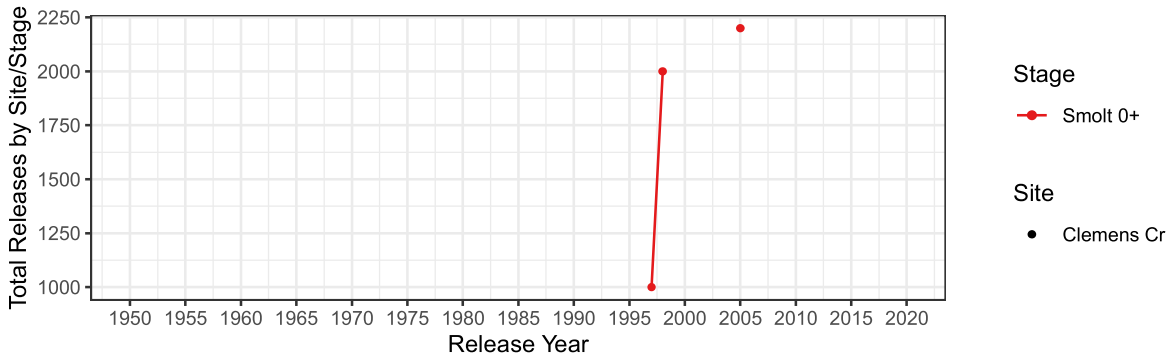
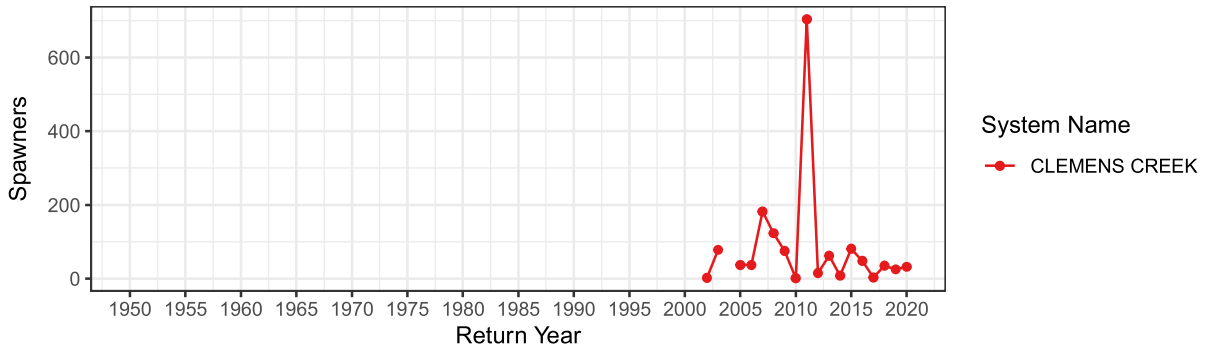


Total Spawners, Natural Origin Spawners, and Wild Spawners
 BEDWELL SYSTEM (WCVI)

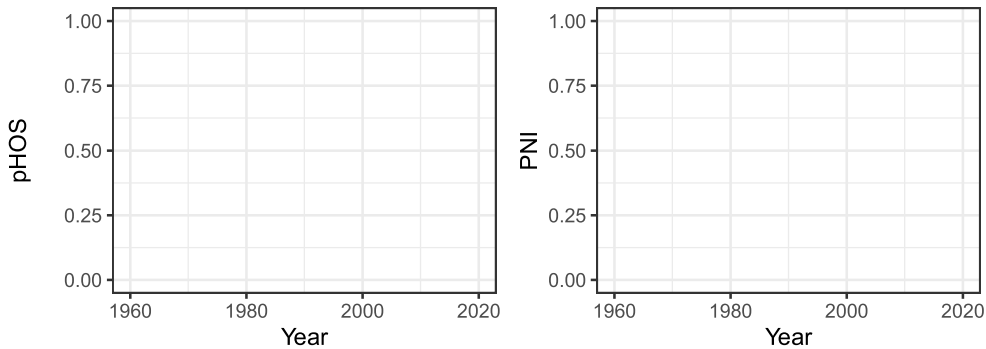
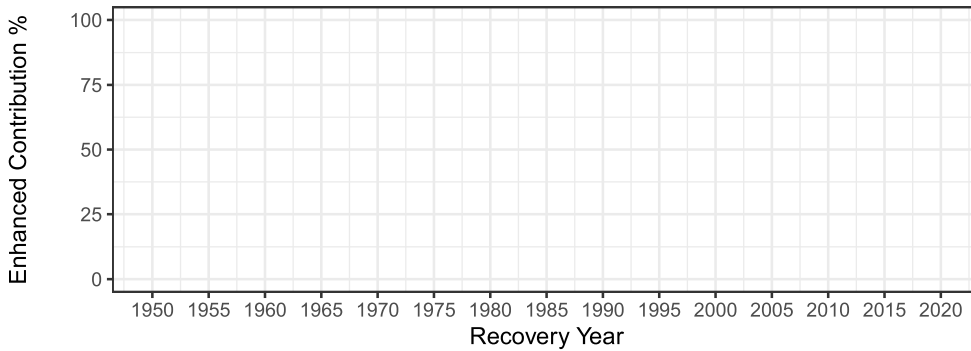
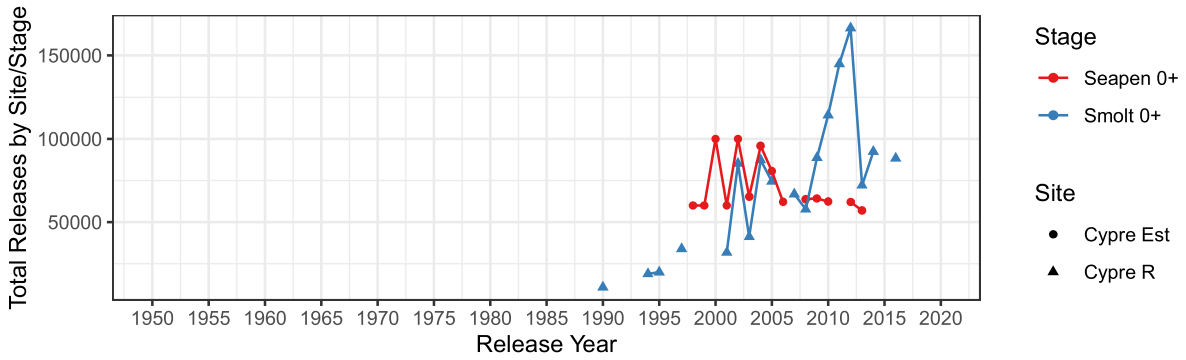
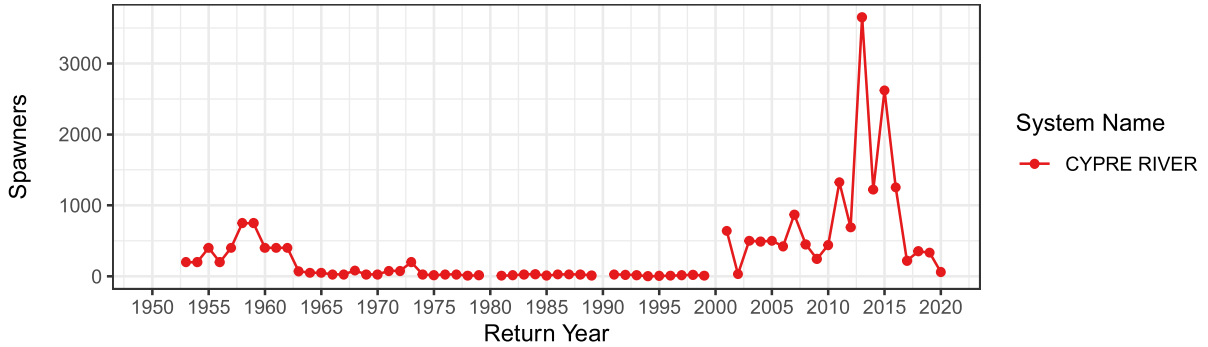


Spawners — Natural Origin — Total — Wild Period — Gen3 — Pre — Pre 2GL — Gen1 — Gen2

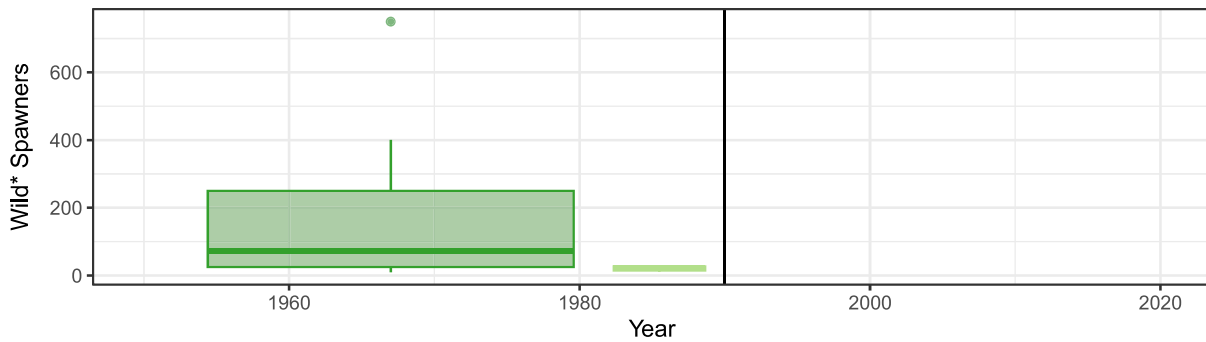
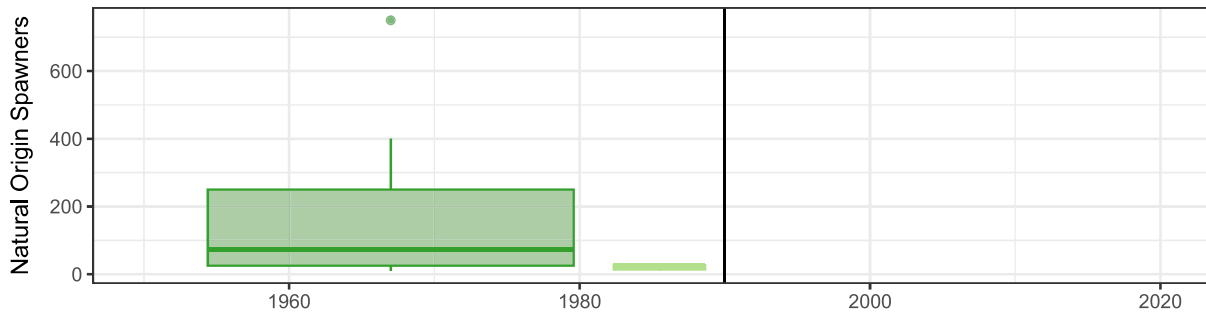
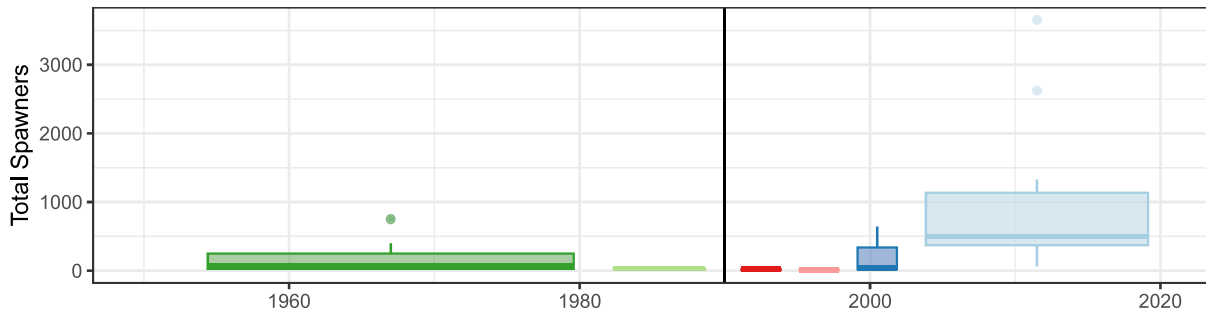
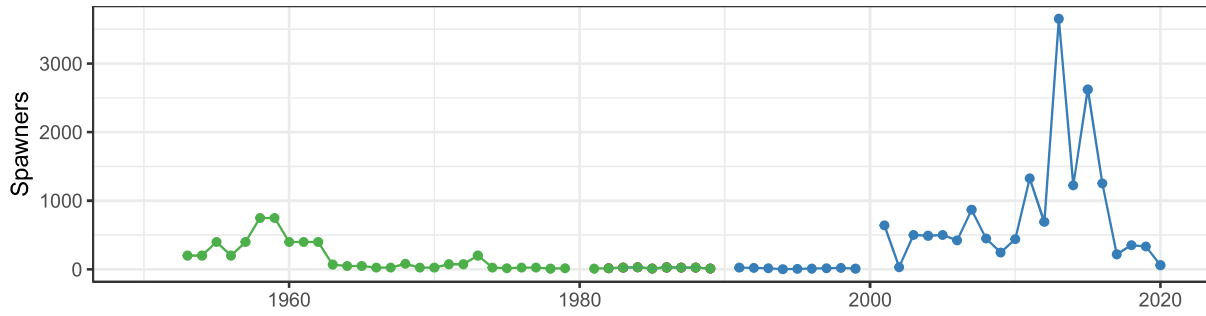
Clemens Creek (WCVI)
 WEST VANCOUVER ISLAND-SOUTH_FA_0.x



Cypre River (WCVI)
WEST VANCOUVER ISLAND-SOUTH_FA_0.x



Total Spawners, Natural Origin Spawners, and Wild Spawners
 CYPRE RIVER (WCVI)



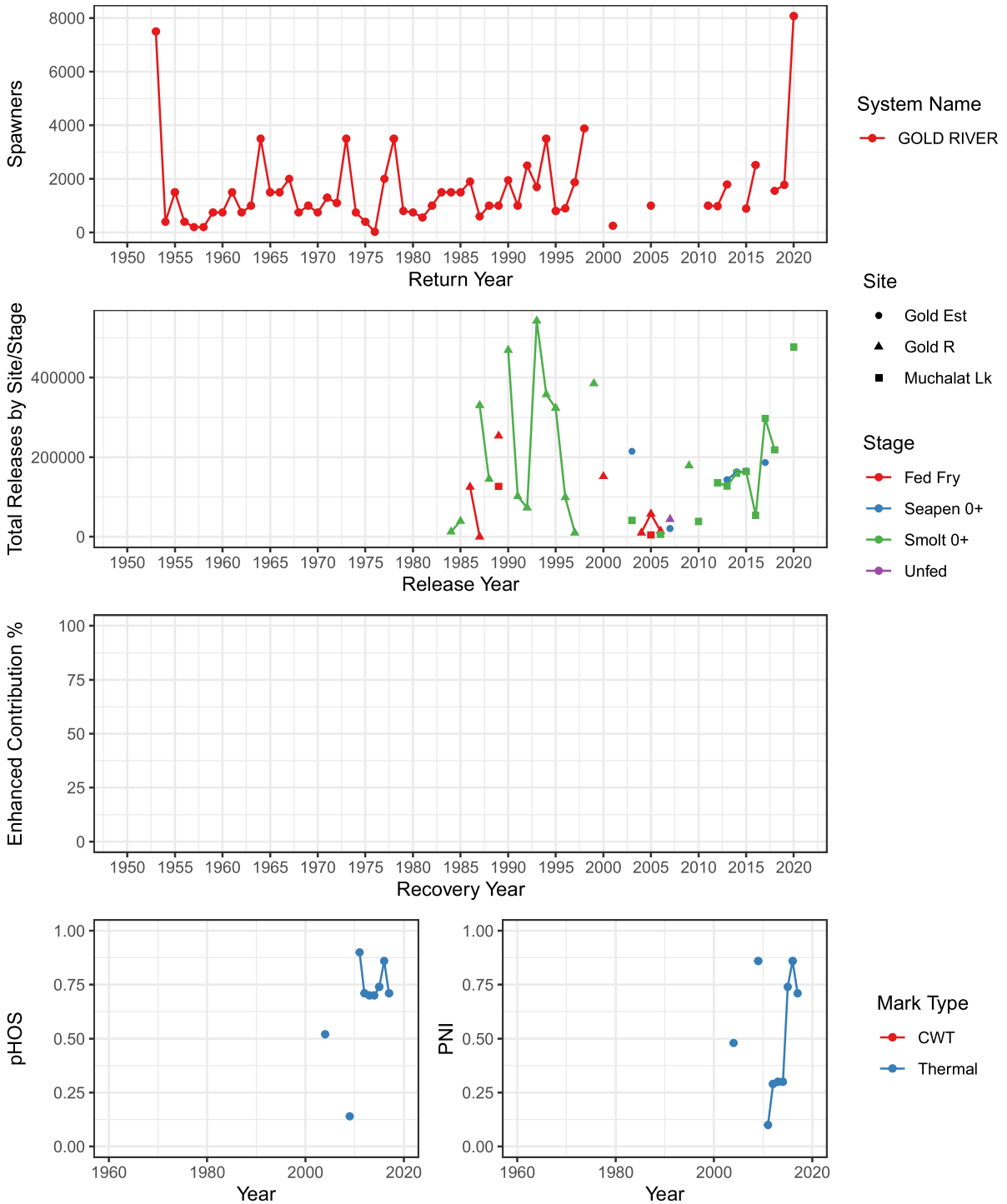
Spawners — Natural Origin — Total — Wild

Period

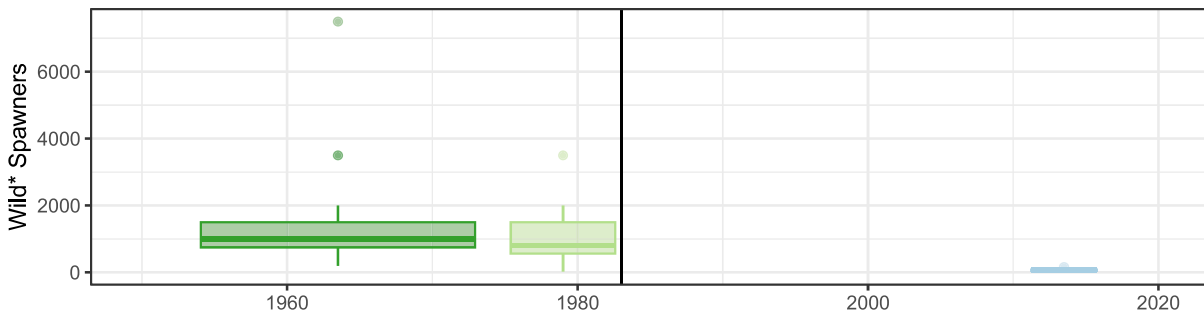
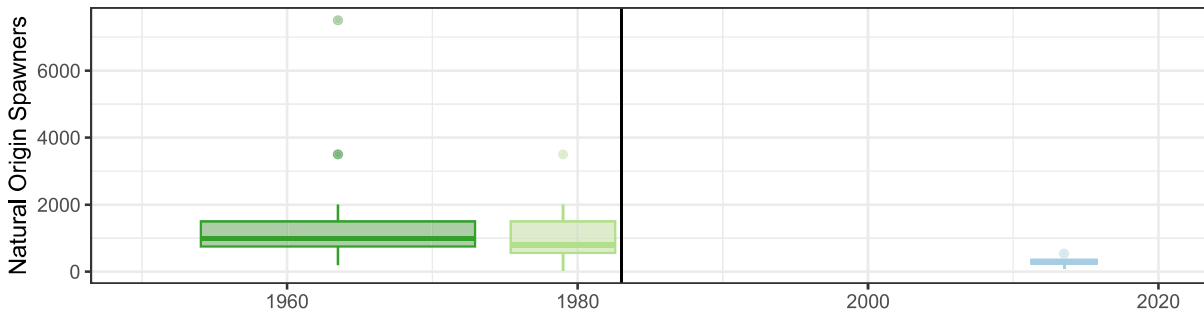
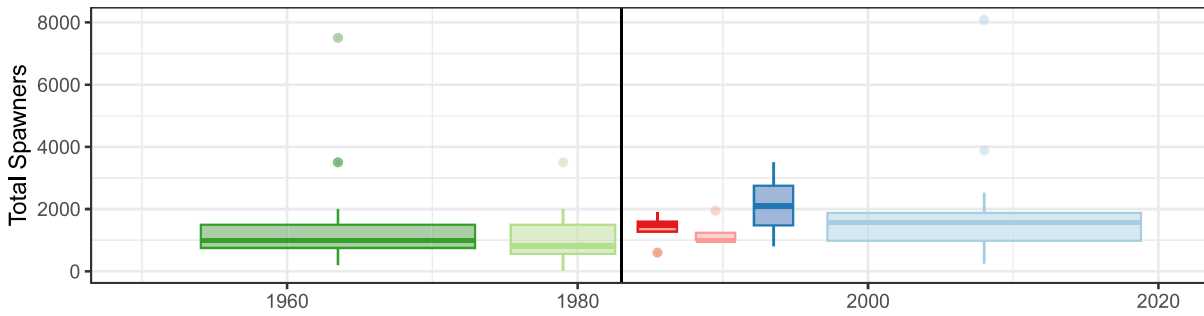
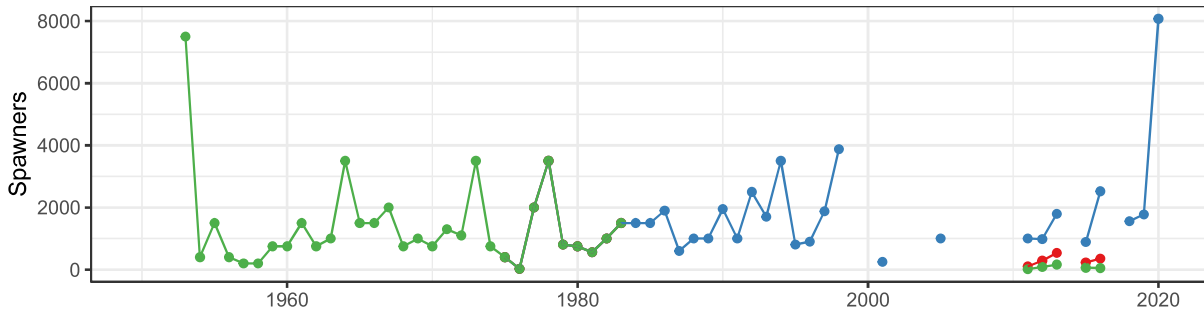
Gen3	Post Gen3	Gen1
Pre	Pre 2GL	Gen2

Gold River (WCVI)

WEST VANCOUVER ISLAND–NOOTKA & KYUQUOT_FA_0.x



Total Spawners, Natural Origin Spawners, and Wild Spawners
GOLD RIVER (WCVI)

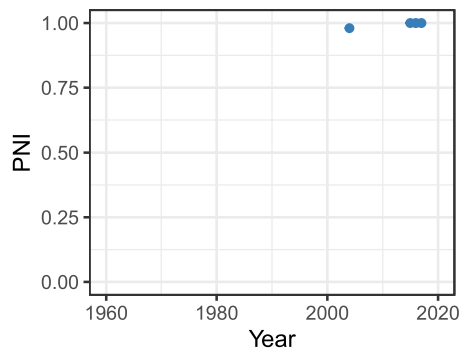
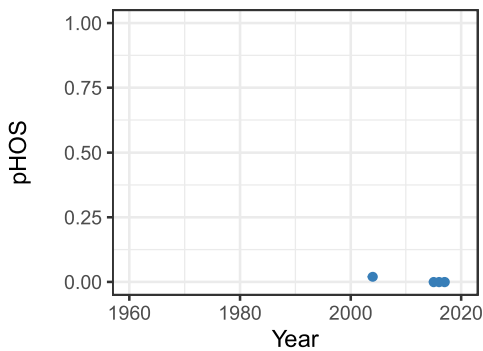
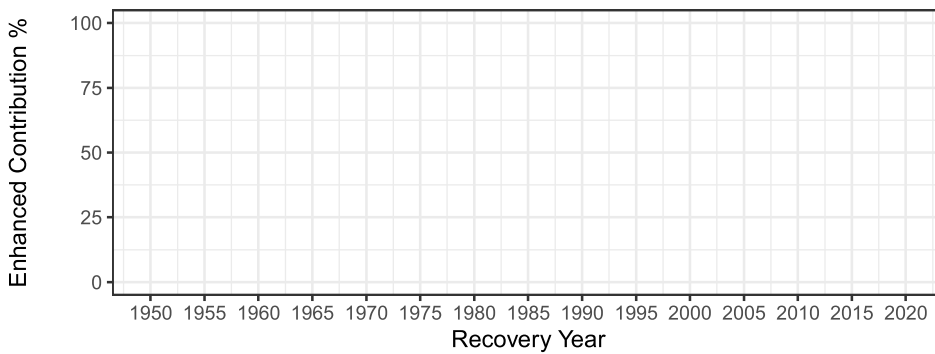
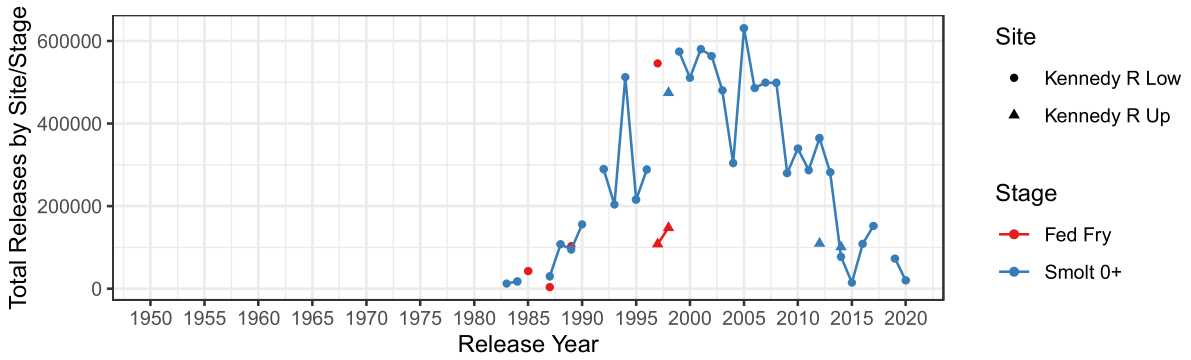
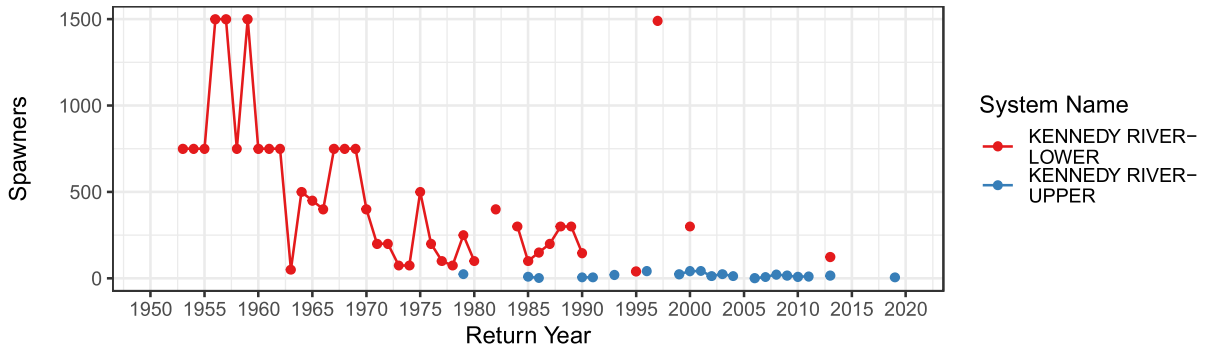


Spawners — Natural Origin — Total — Wild

Period

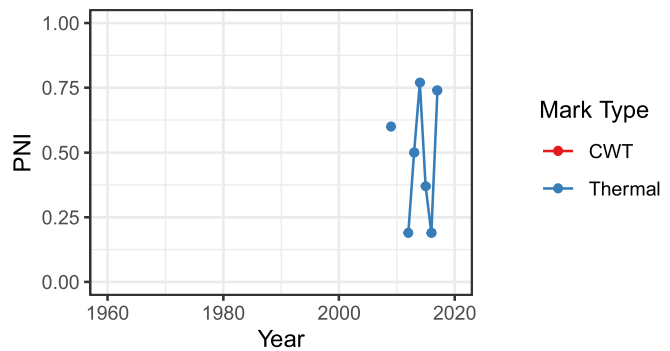
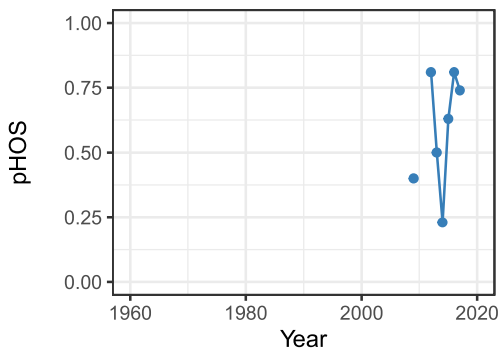
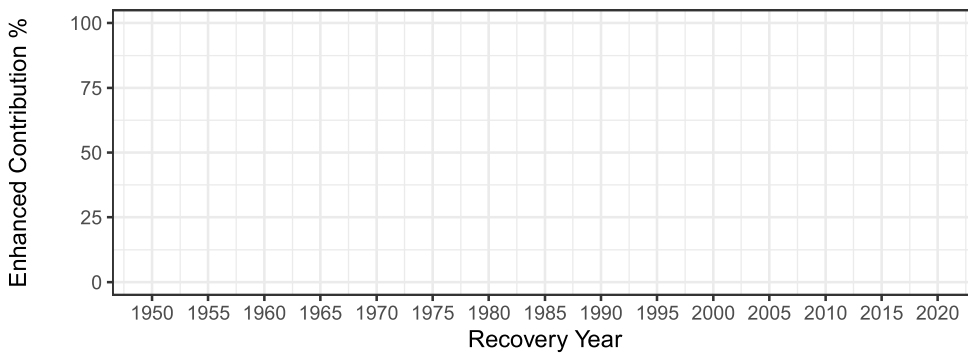
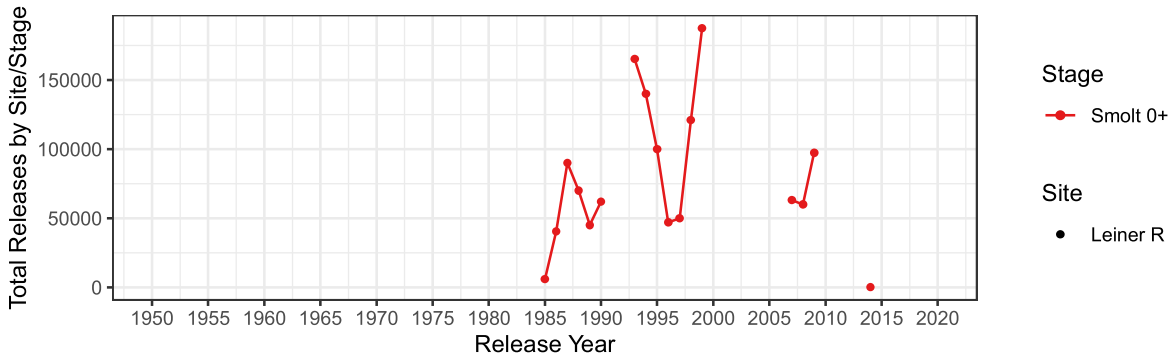
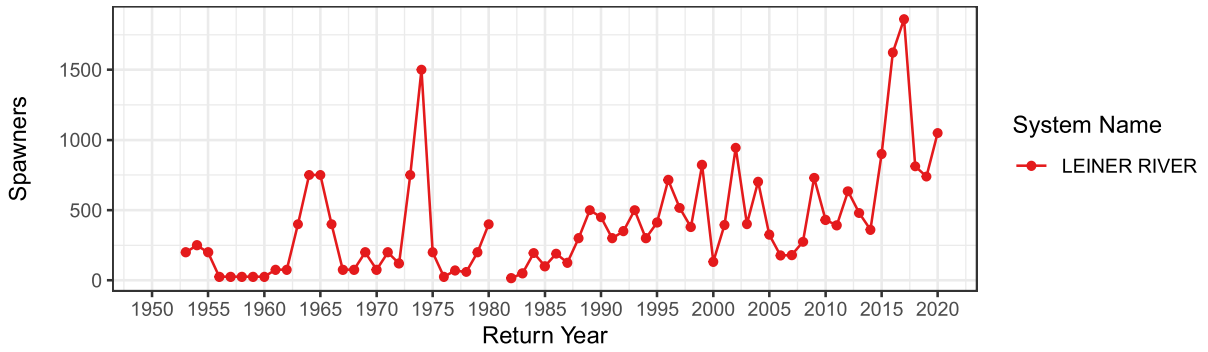
Gen3	Post Gen3	Gen1
Pre	Pre 2GL	Gen2

Kennedy River (WCVI)
WEST VANCOUVER ISLAND-SOUTH_FA_0.x

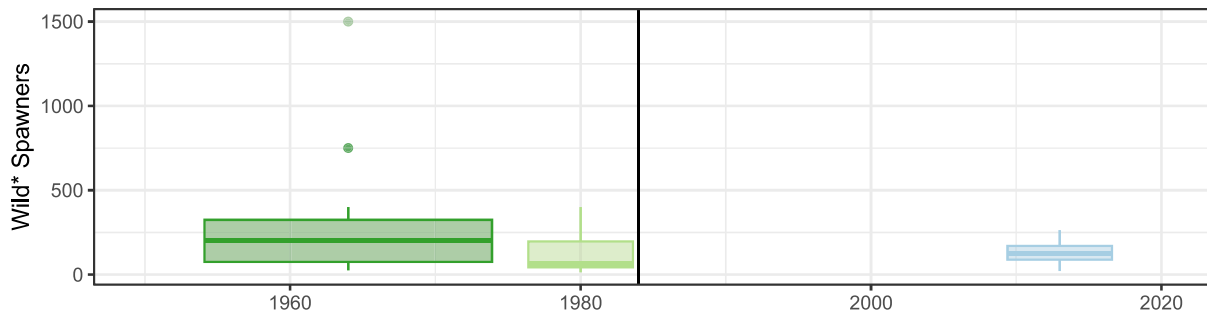
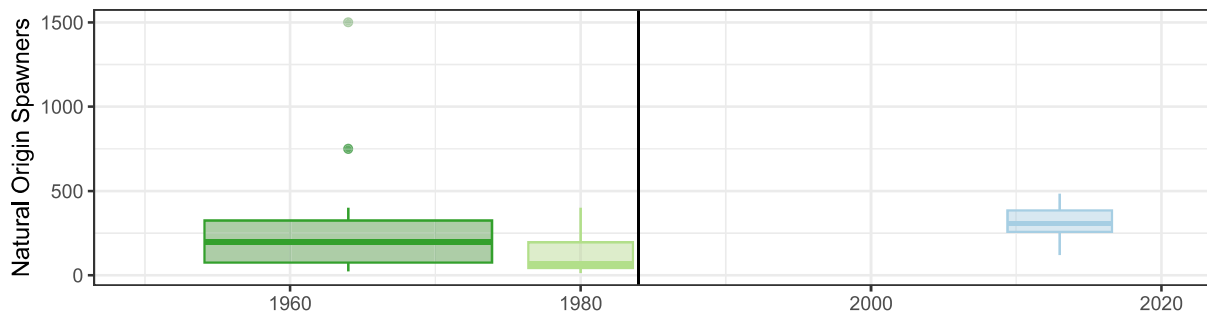
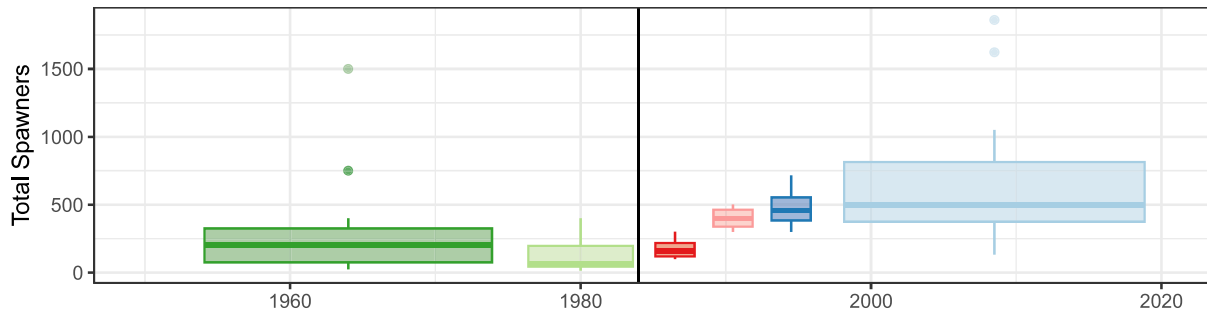
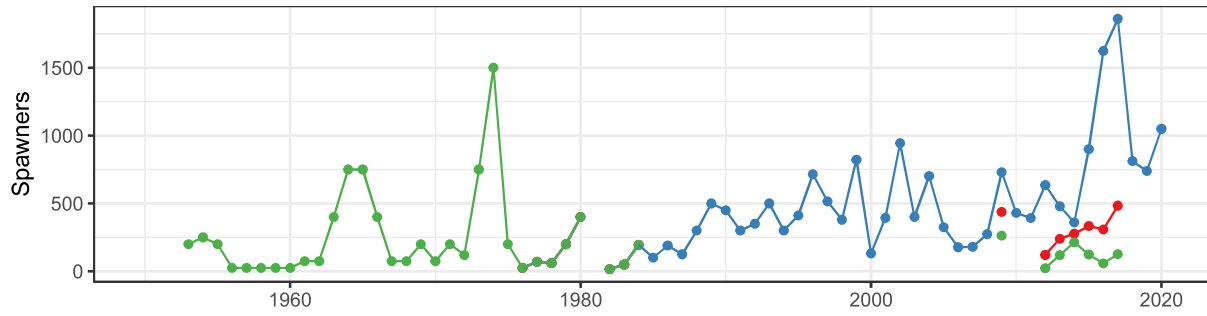


Leiner River (WCVI)

WEST VANCOUVER ISLAND-NOOTKA & KYUQUOT_FA_0.x



Total Spawners, Natural Origin Spawners, and Wild Spawners
LEINER RIVER (WCVI)



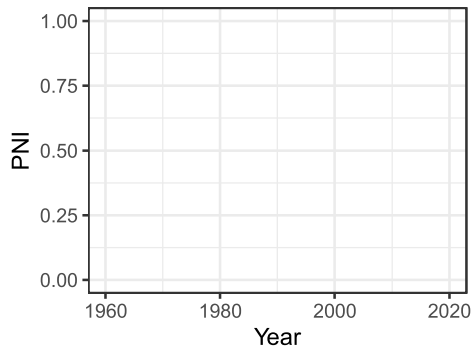
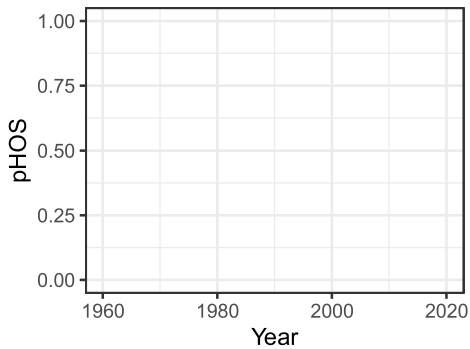
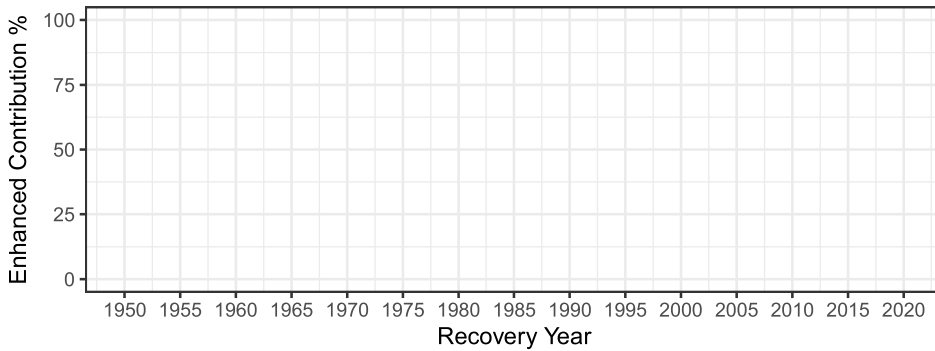
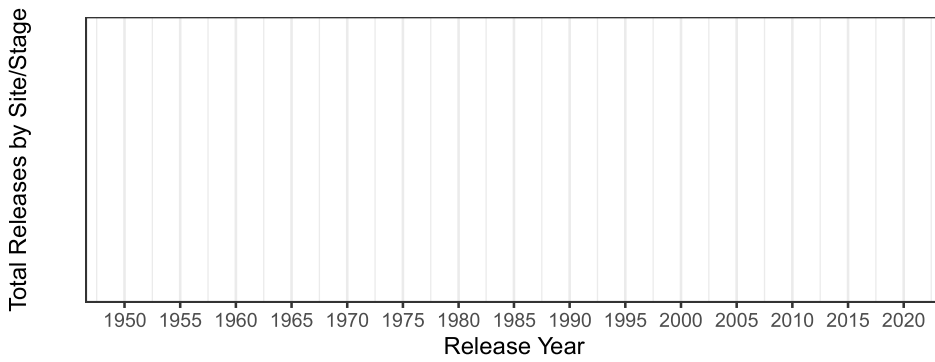
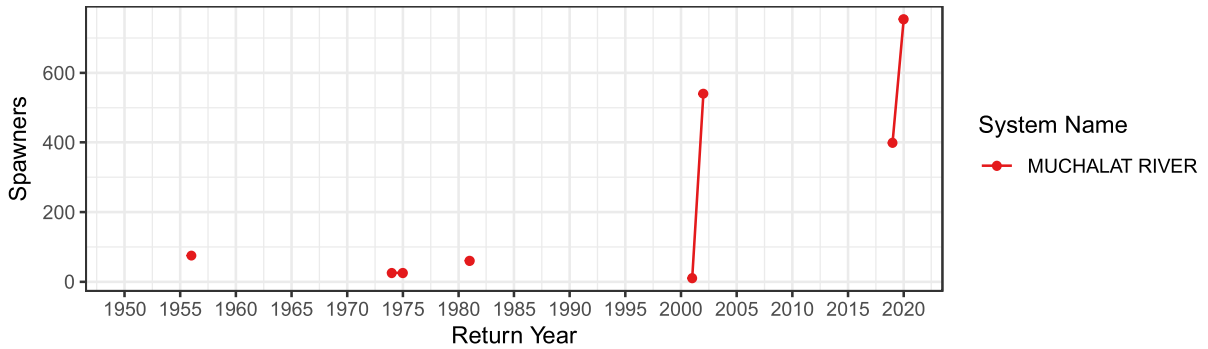
Spawners — Natural Origin — Total — Wild

Period

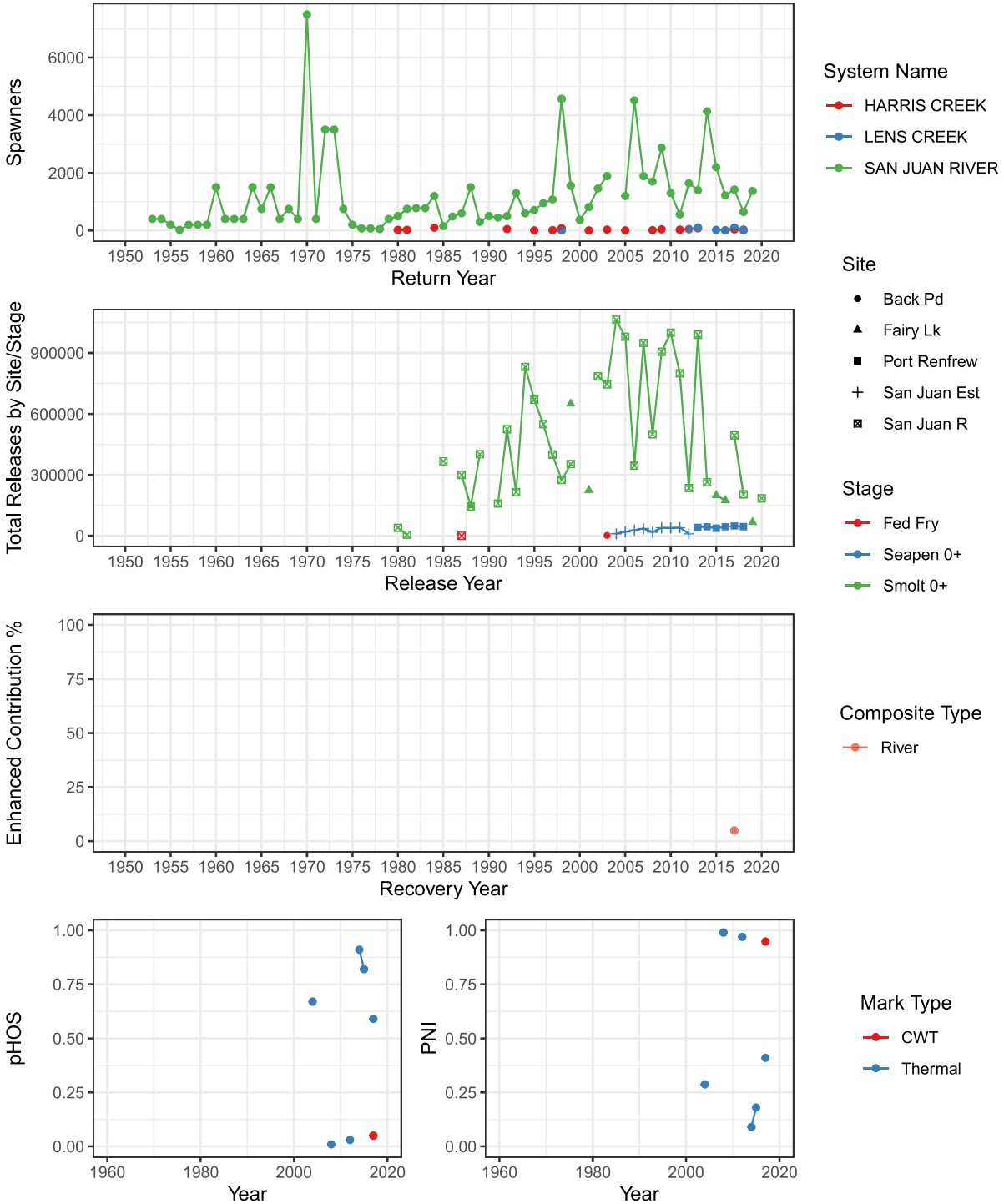
Gen3	Post Gen3	Gen1
Pre	Pre 2GL	Gen2

Muchalat River (WCVI)

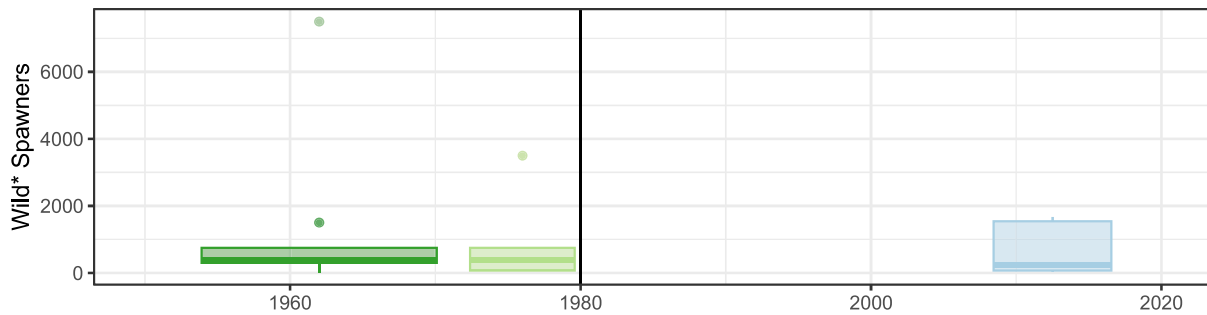
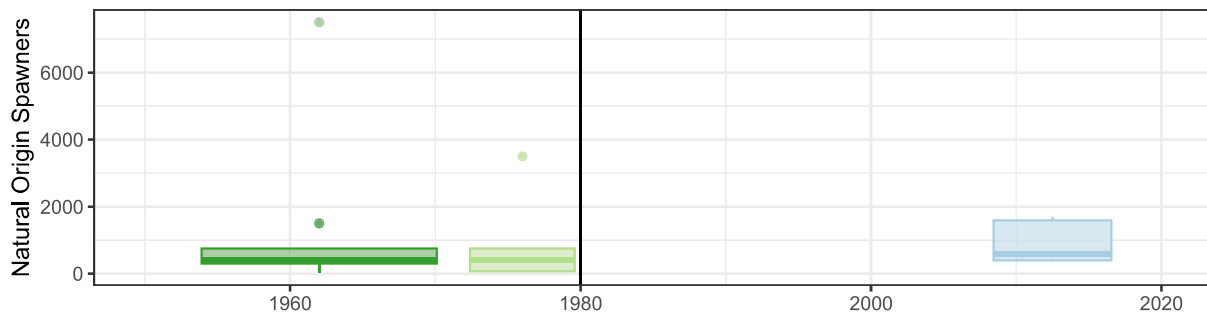
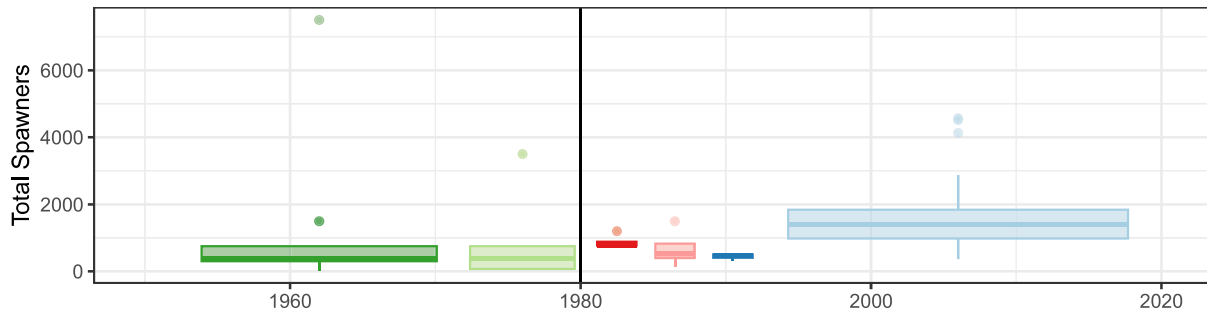
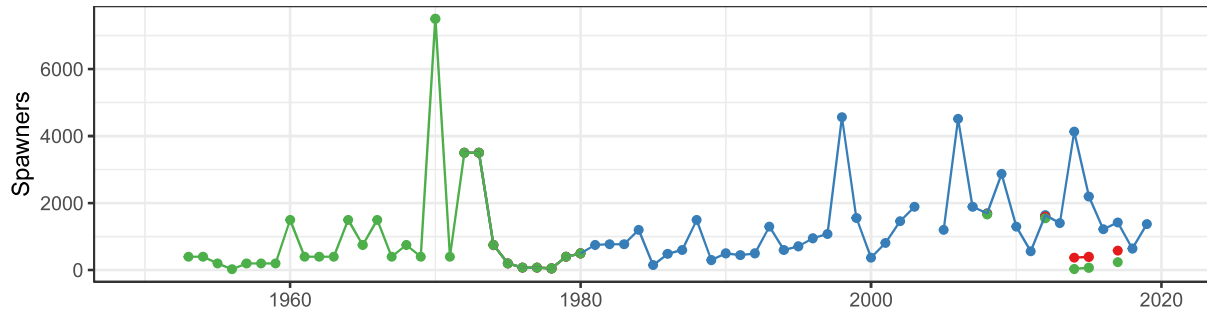
NA



San Juan River (WCVI)
WEST VANCOUVER ISLAND-SOUTH_FA_0.x



Total Spawners, Natural Origin Spawners, and Wild Spawners
SAN JUAN RIVER (WCVI)



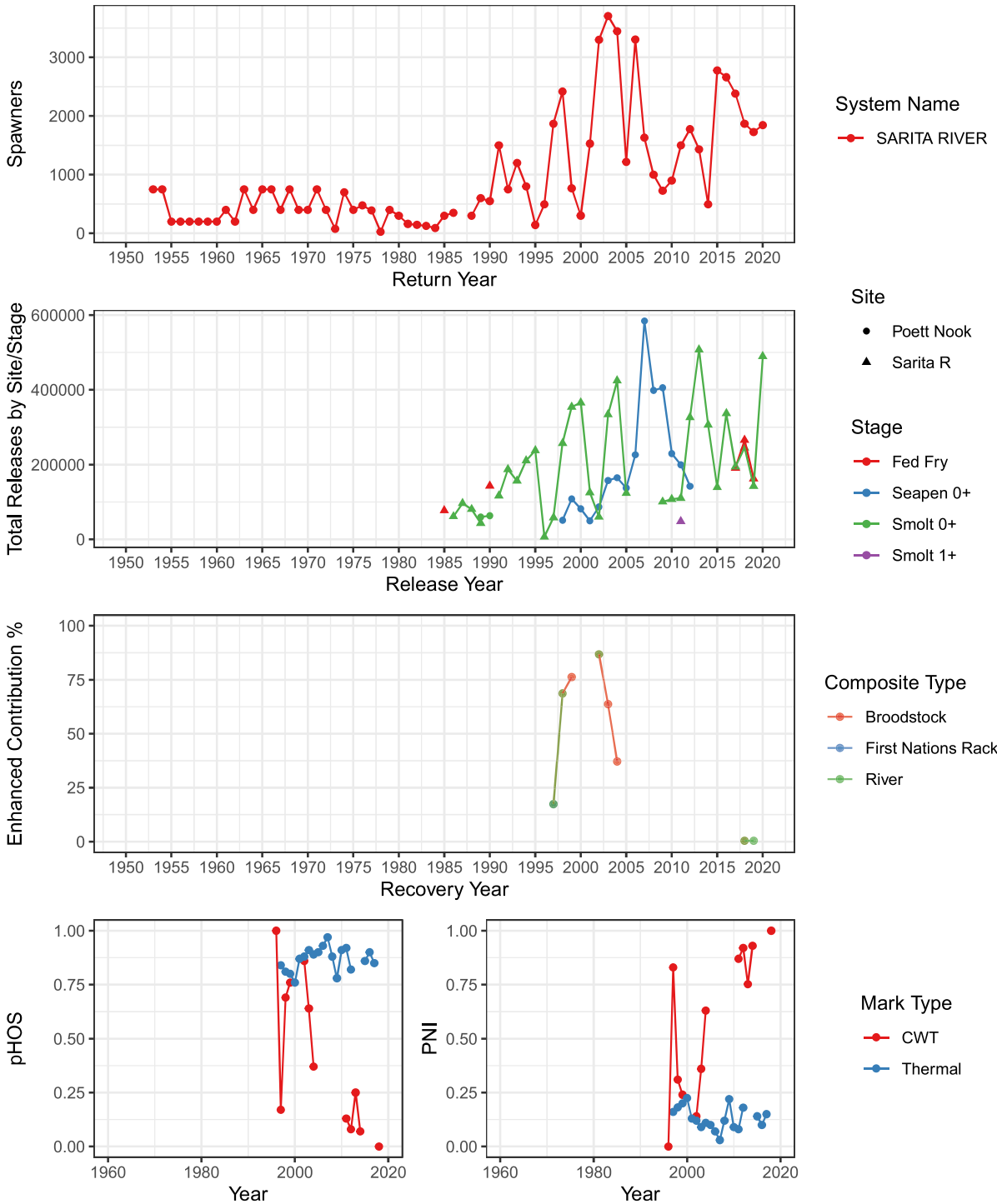
Spawners — Natural Origin — Total — Wild

Period

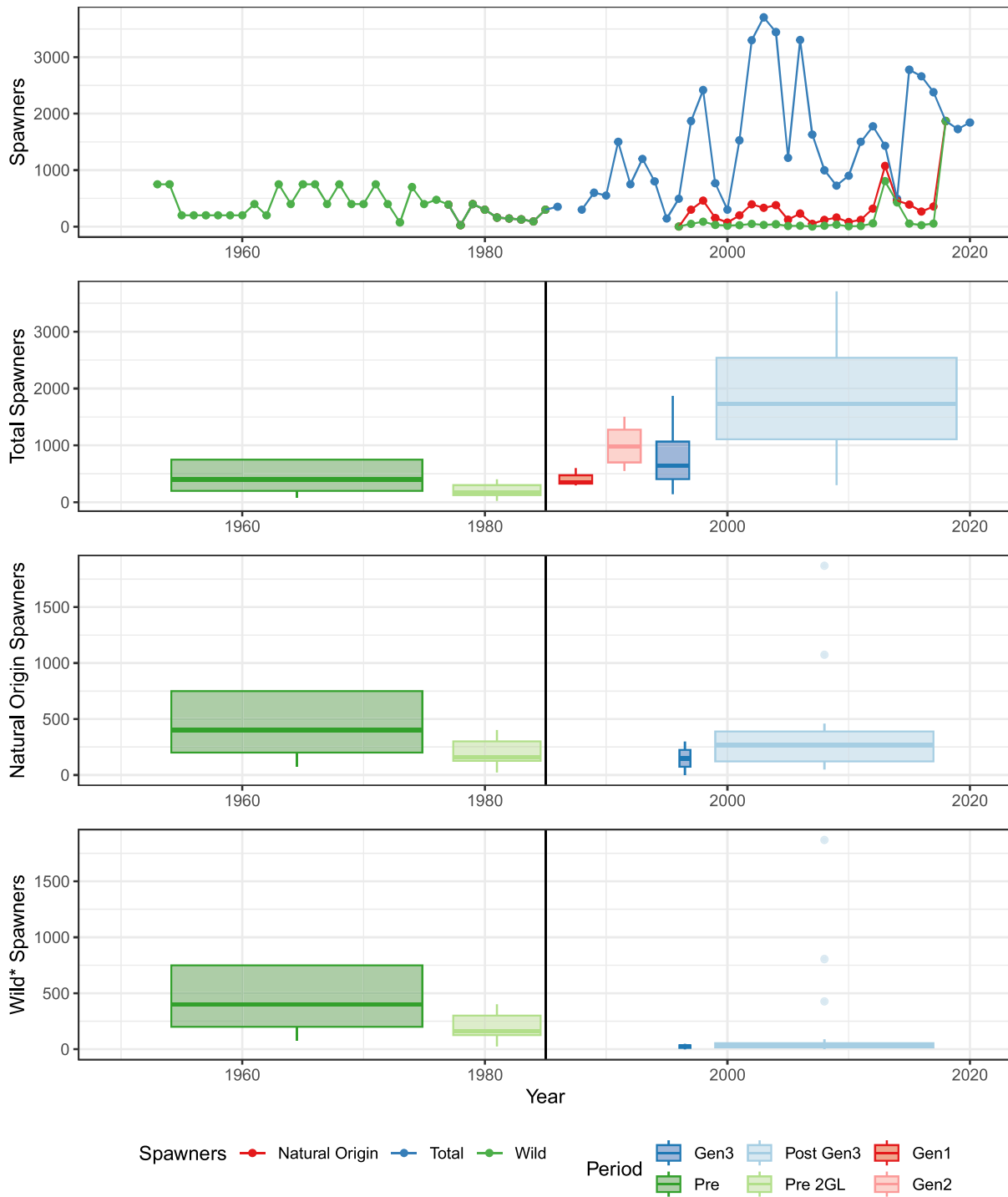
Pre	Pre 2GL	Gen1
Gen3	Post Gen3	Gen2

Sarita River (WCVI)

WEST VANCOUVER ISLAND-SOUTH_FA_0.x

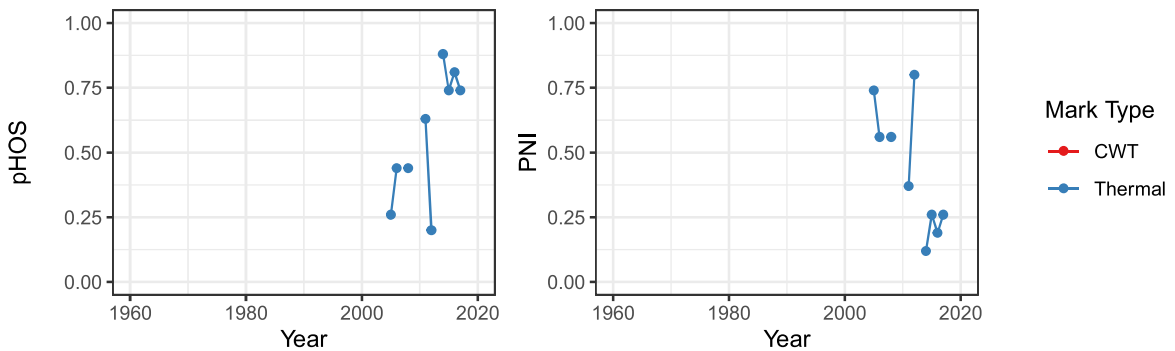
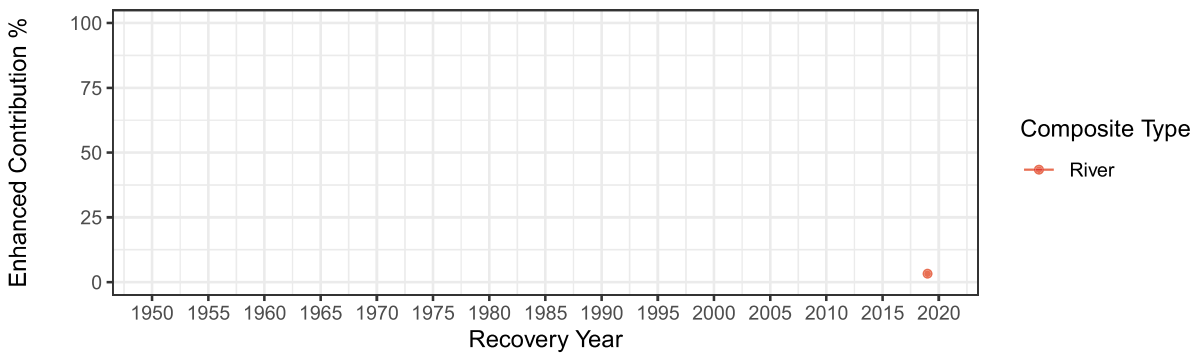
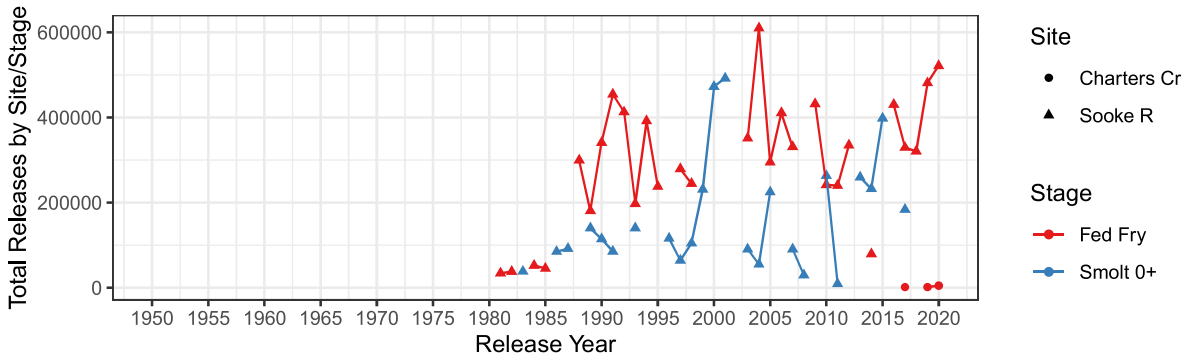
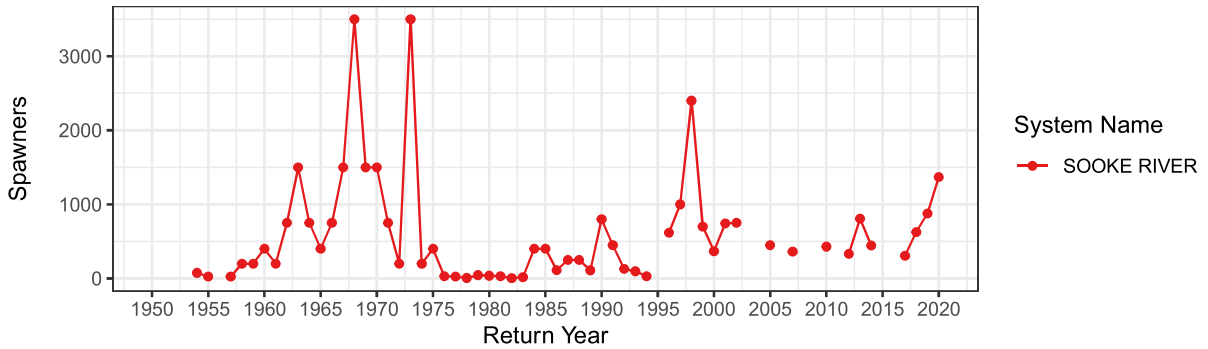


Total Spawners, Natural Origin Spawners, and Wild Spawners
SARITA RIVER (WCVI)

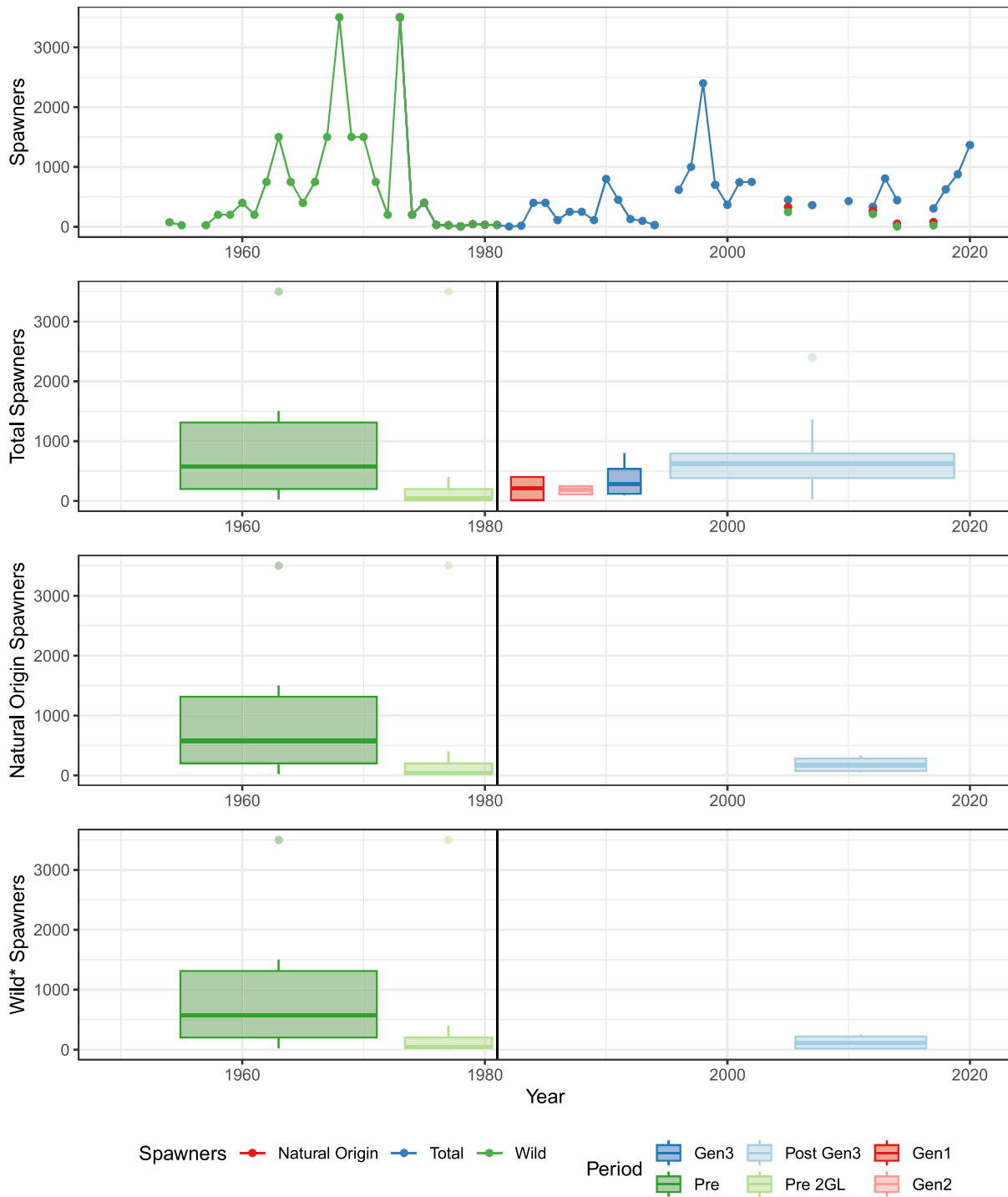


Sooke River (WCVI)

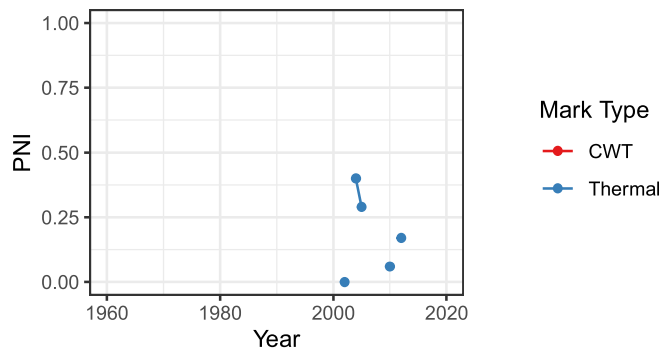
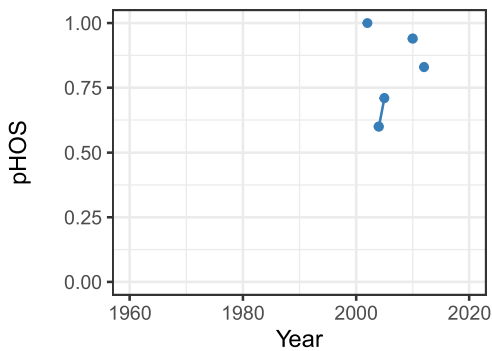
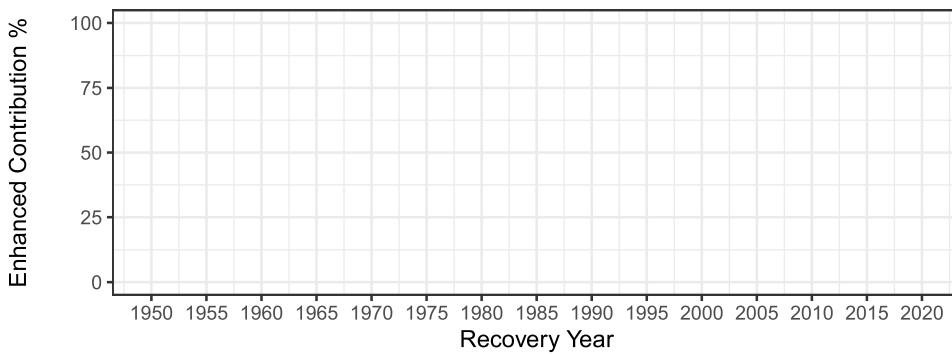
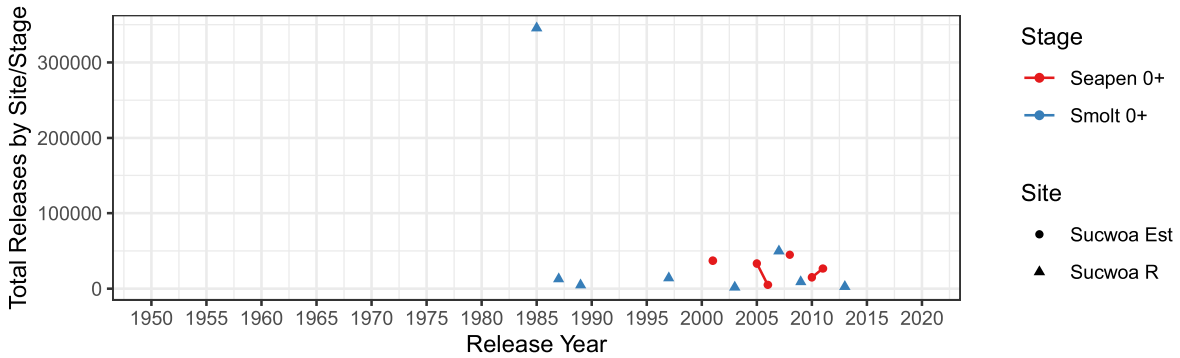
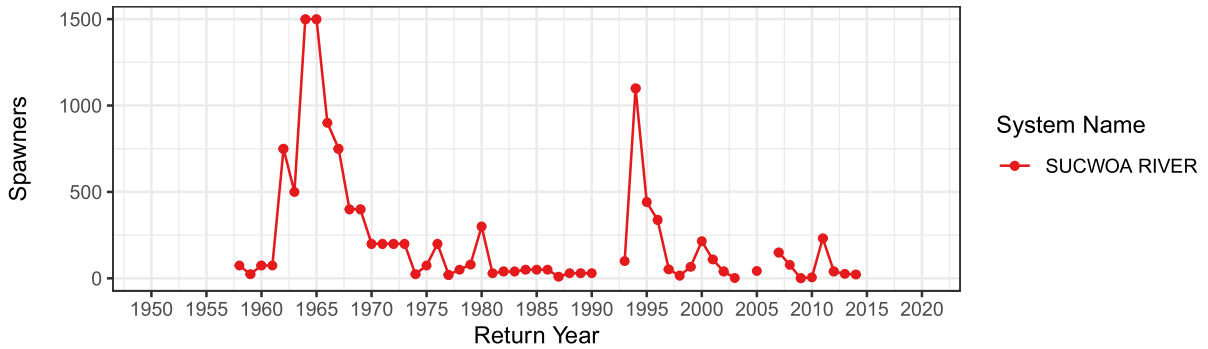
WEST VANCOUVER ISLAND-SOUTH_FA_0.x



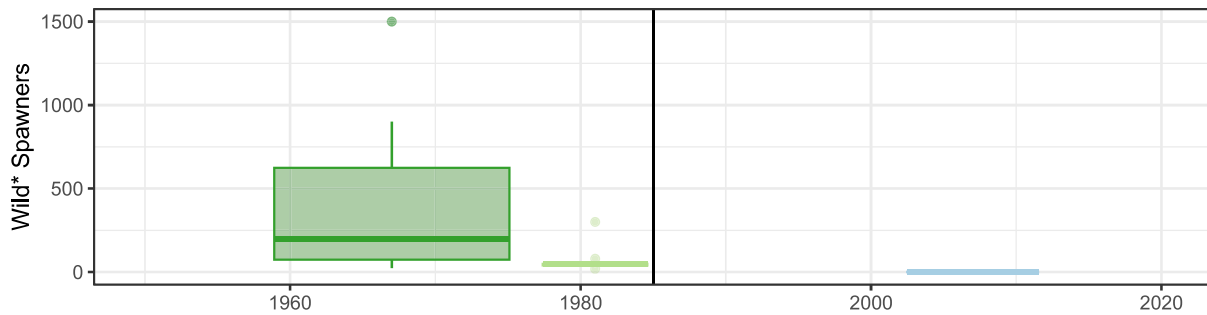
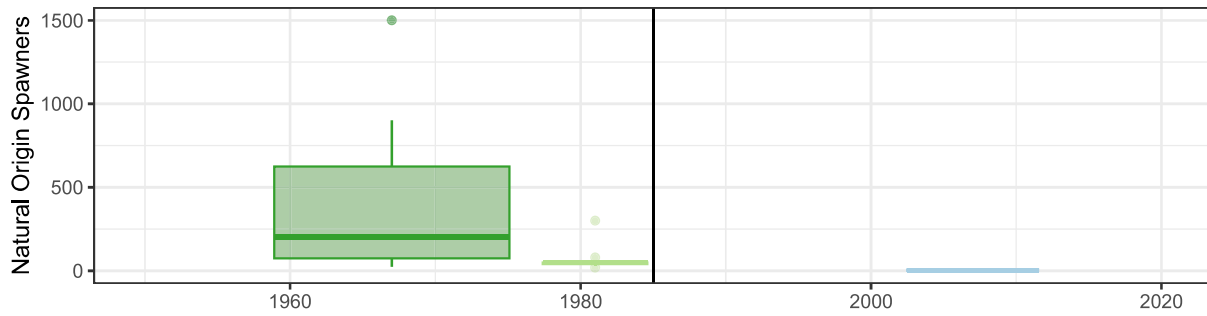
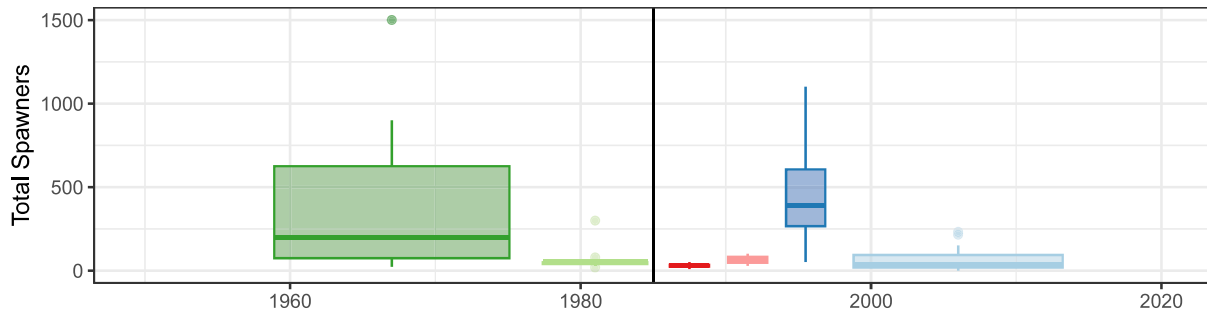
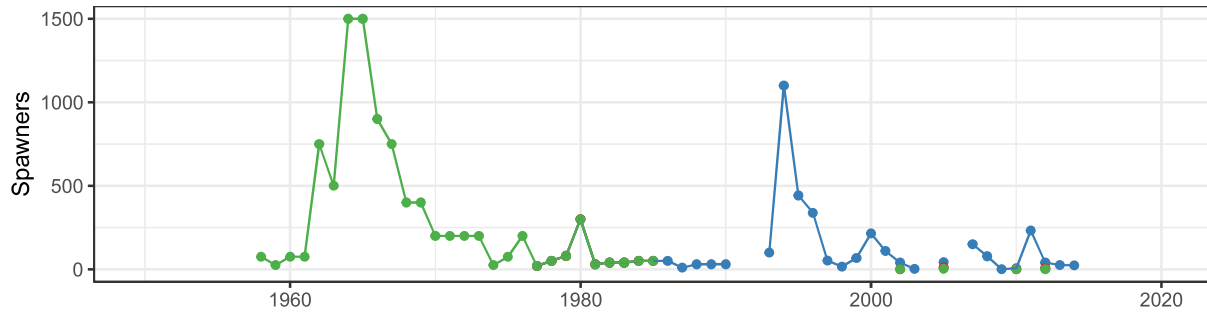
Total Spawners, Natural Origin Spawners, and Wild Spawners
 SOOKE RIVER (WCVI)



Sucwoa River (WCVI)
WEST VANCOUVER ISLAND–NOOTKA & KYUQUOT_FA_0.x



Total Spawners, Natural Origin Spawners, and Wild Spawners
SUCWOA RIVER (WCVI)



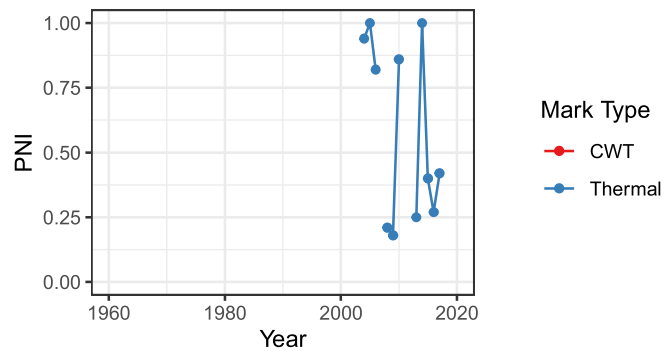
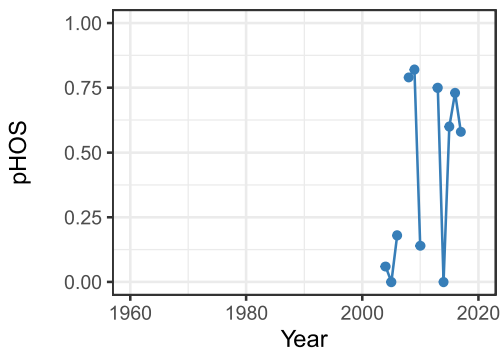
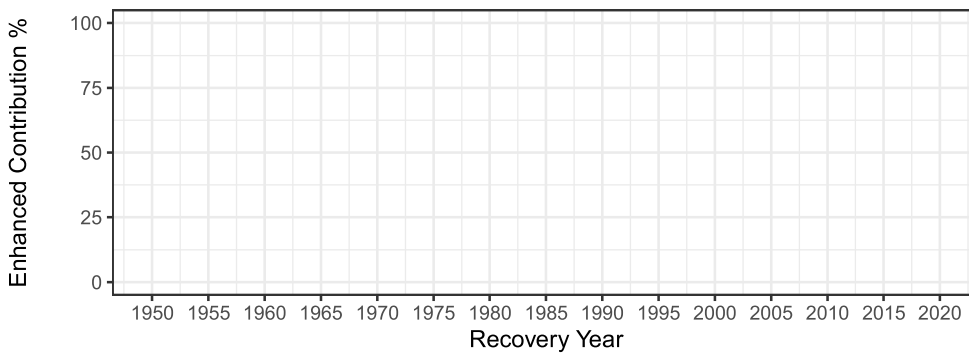
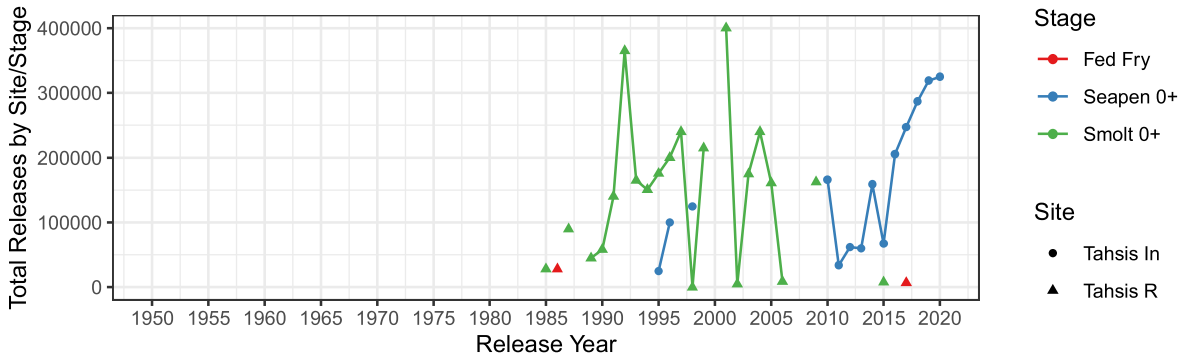
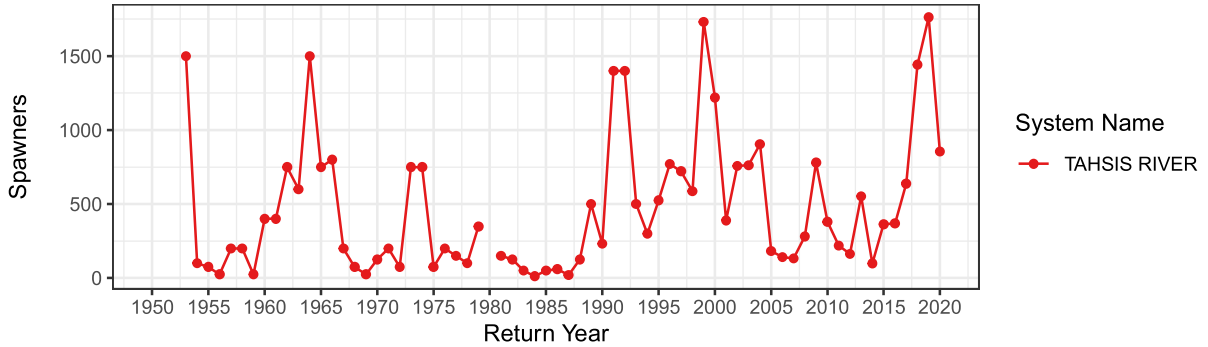
Spawners — Natural Origin — Total — Wild

Period

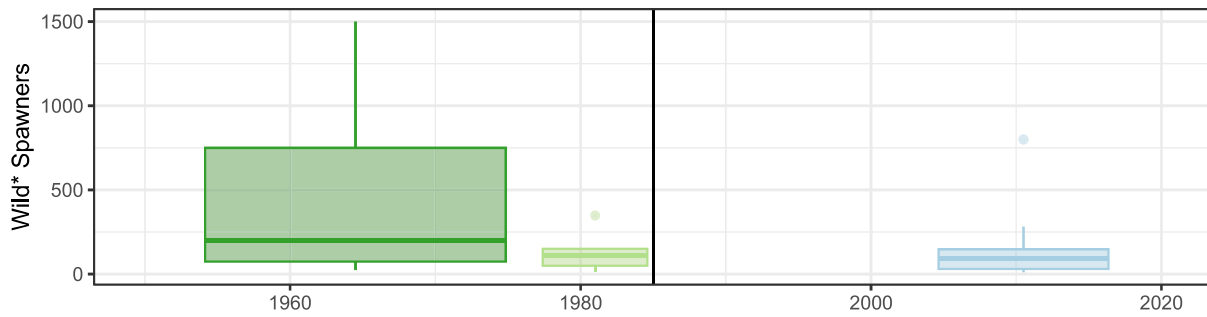
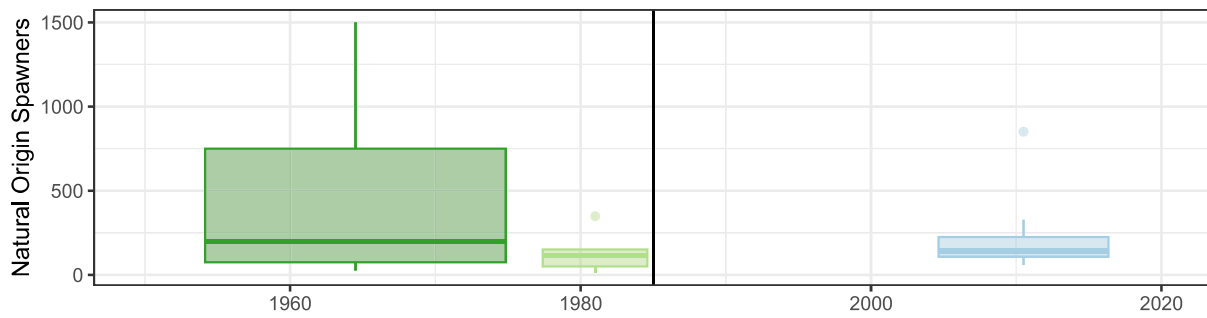
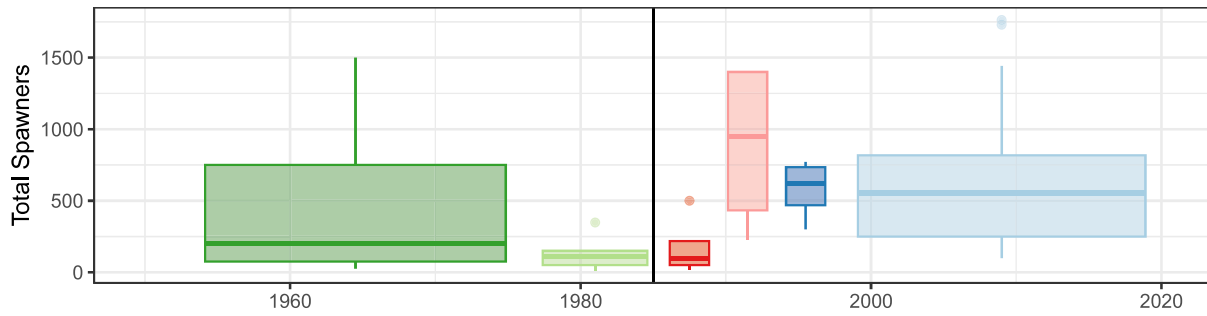
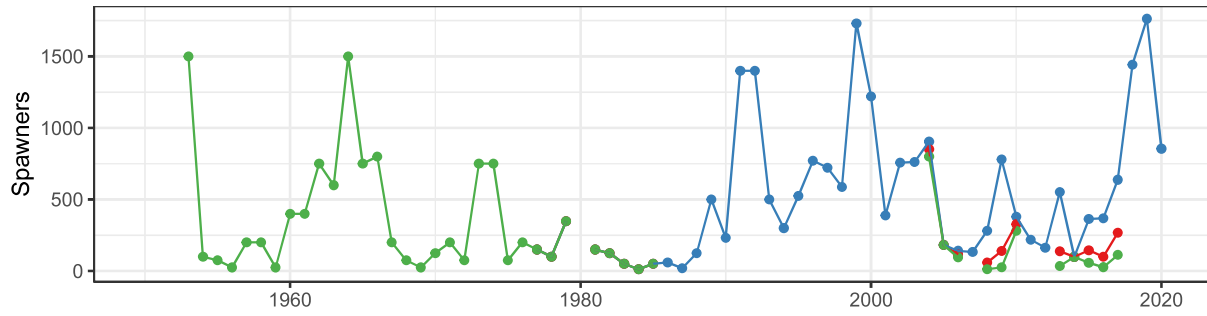
■ Pre	■ Gen3	■ Post Gen3	■ Gen1
■ Pre 2GL			■ Gen2

Tahsis River (WCVI)

WEST VANCOUVER ISLAND–NOOTKA & KYUQUOT_FA_0.x



Total Spawners, Natural Origin Spawners, and Wild Spawners
TAHSIS RIVER (WCVI)

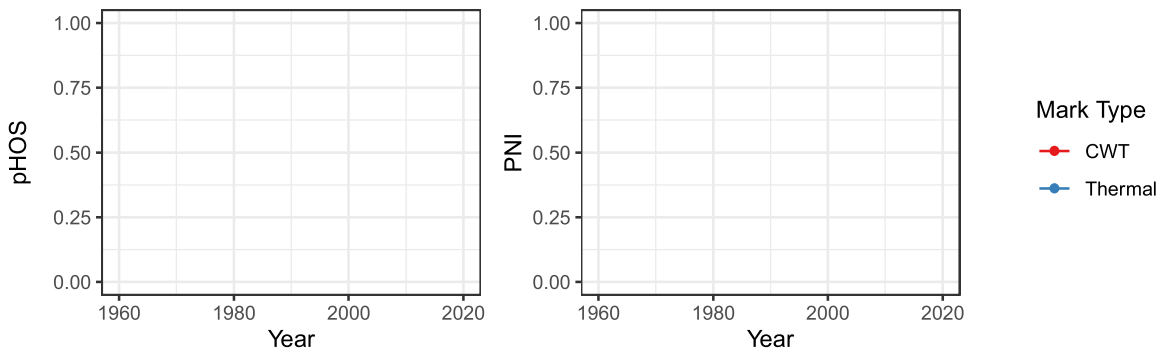
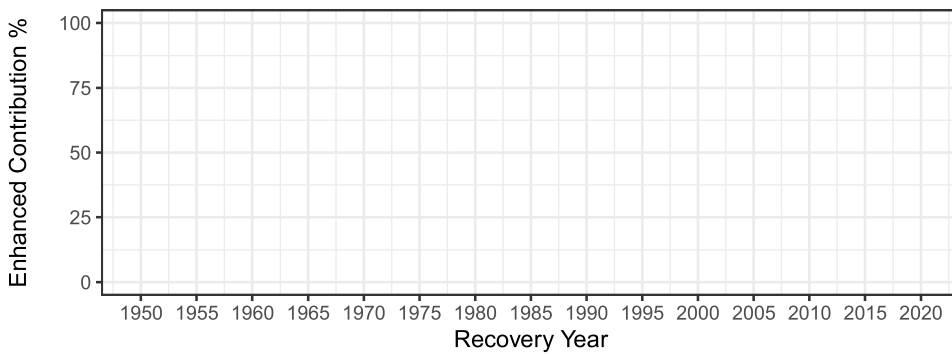
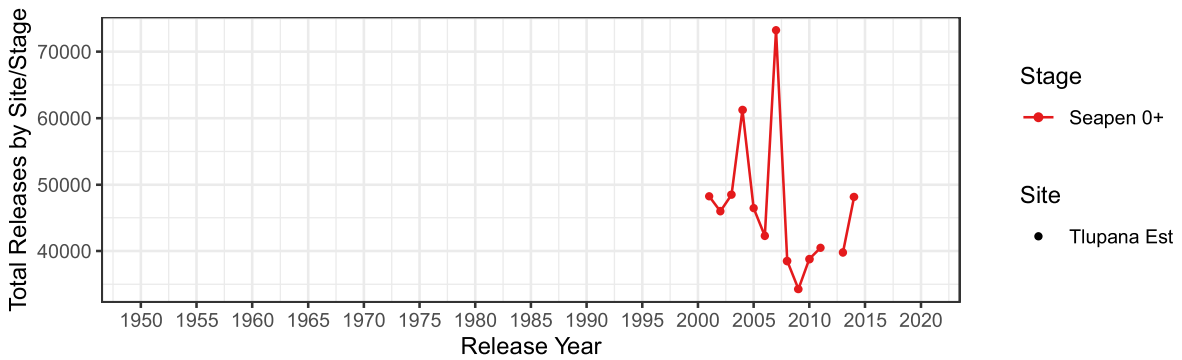
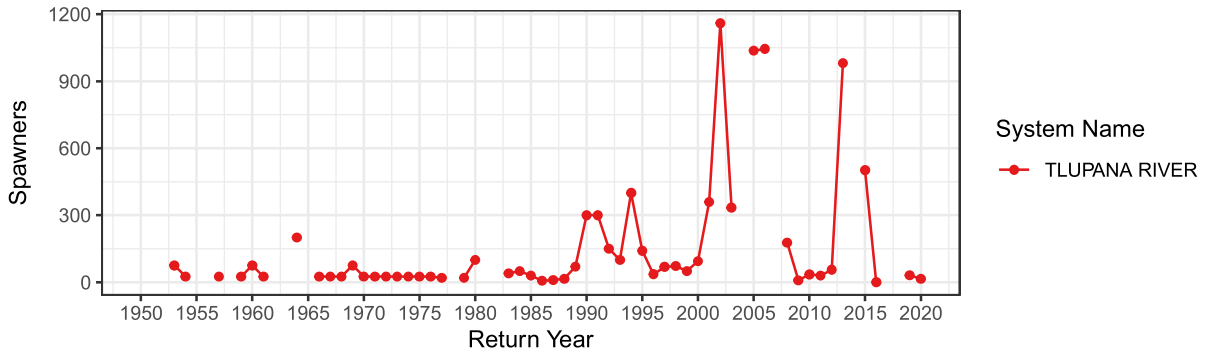


Spawners — Natural Origin — Total — Wild

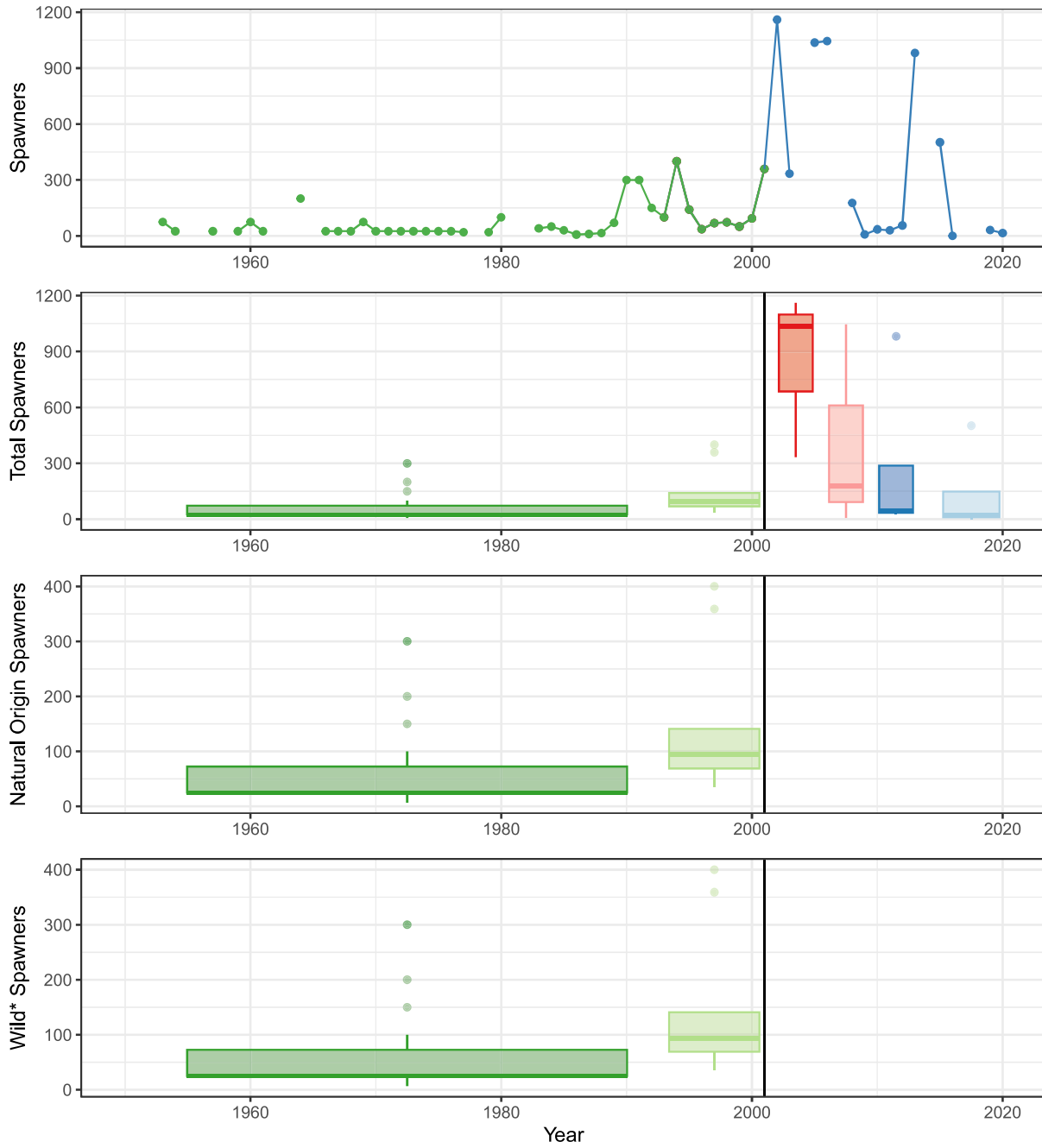
Period

Gen3	Post Gen3	Gen1
Pre	Pre 2GL	Gen2

Tlupana River (WCVI)
WEST VANCOUVER ISLAND–NOOTKA & KYUQUOT_FA_0.x



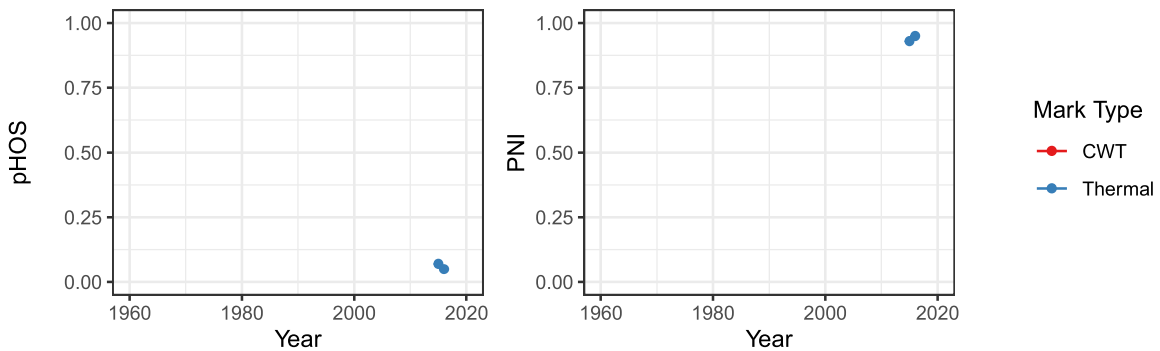
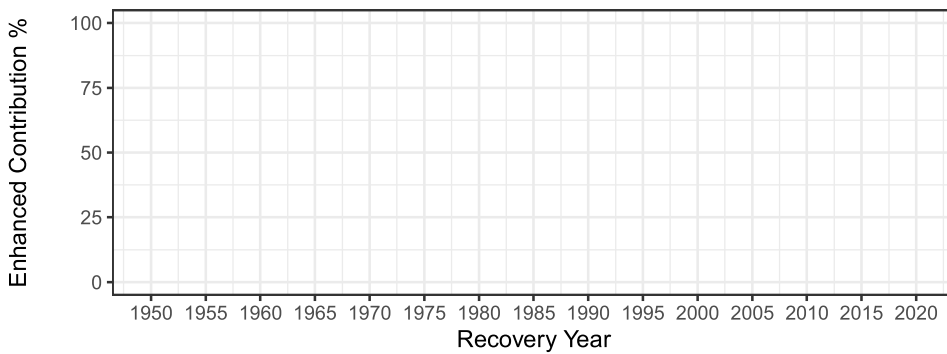
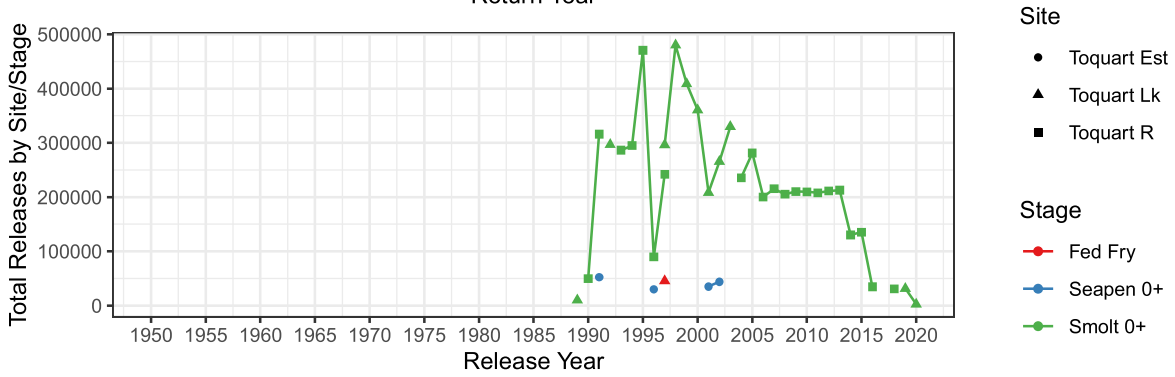
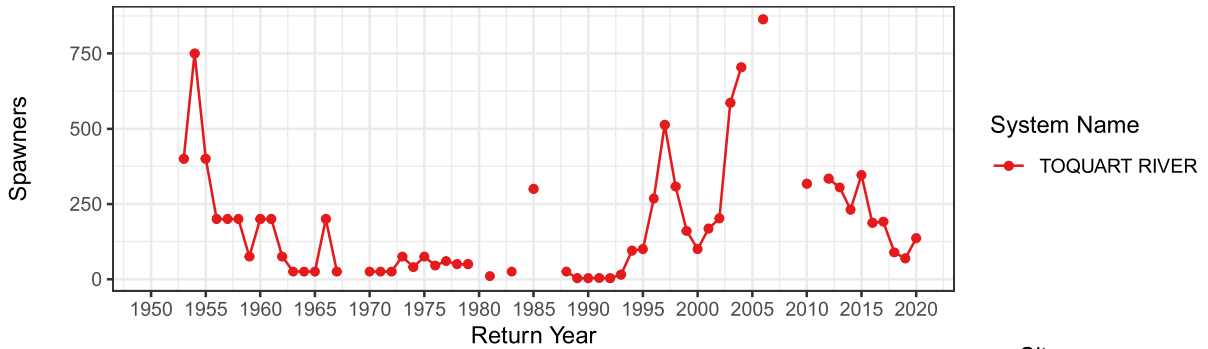
Total Spawners, Natural Origin Spawners, and Wild Spawners
 TLUPANA RIVER (WCVI)



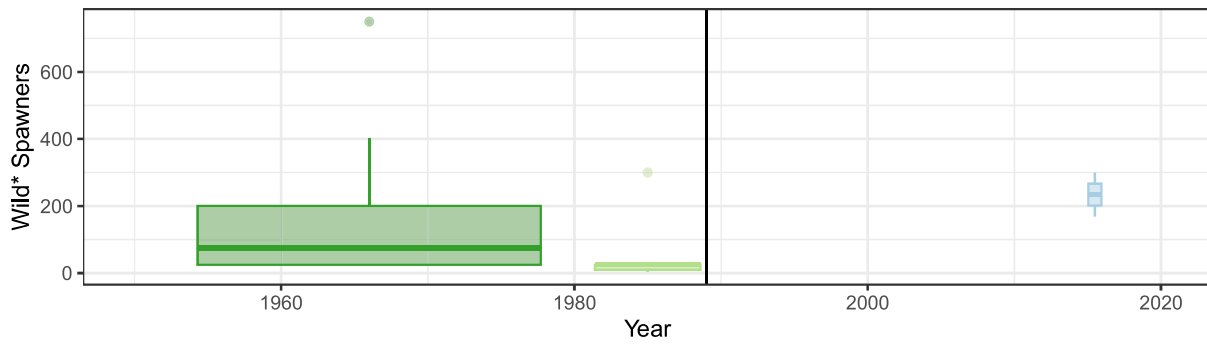
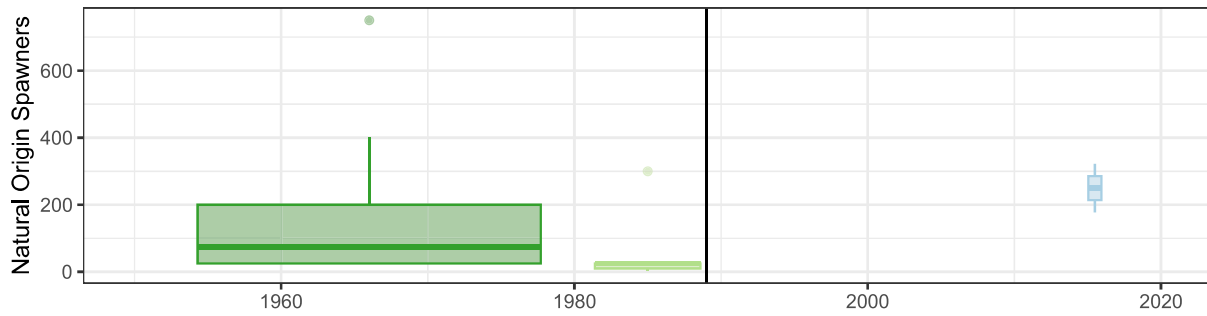
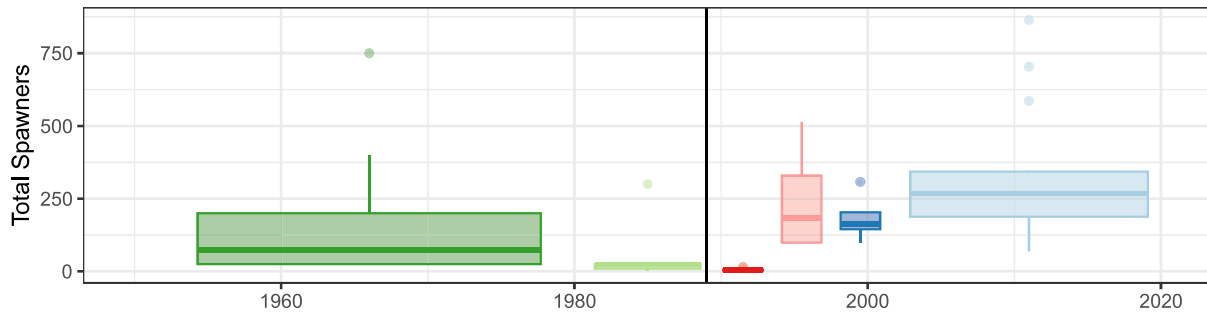
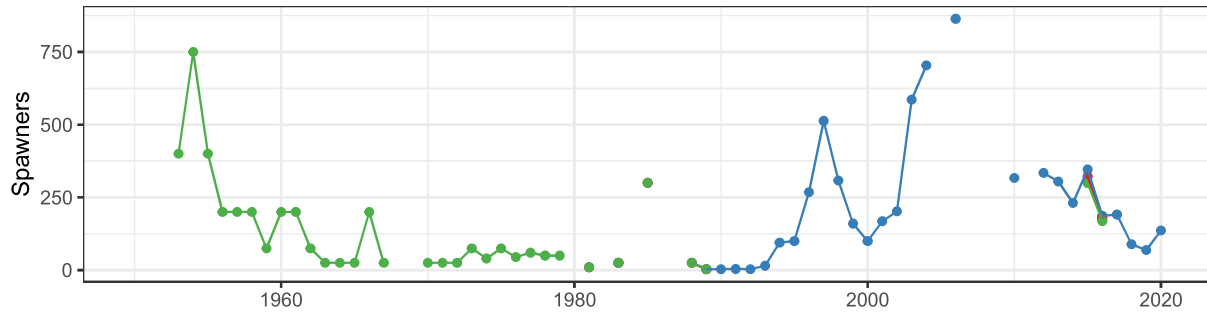
Spawners — Natural Origin — Total — Wild

Period — Gen3 — Post Gen3 — Gen1 — Pre — Pre 2GL — Gen2

Toquart River (WCVI)
WEST VANCOUVER ISLAND-SOUTH_FA_0.x



Total Spawners, Natural Origin Spawners, and Wild Spawners
TOQUART RIVER (WCVI)

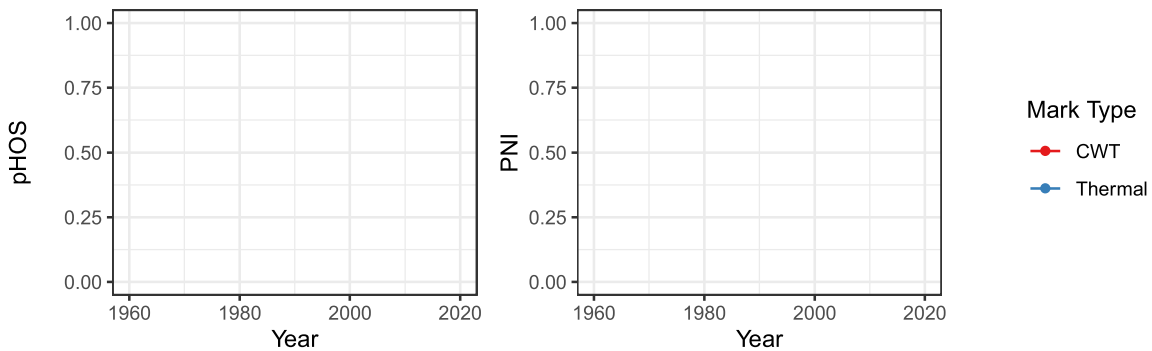
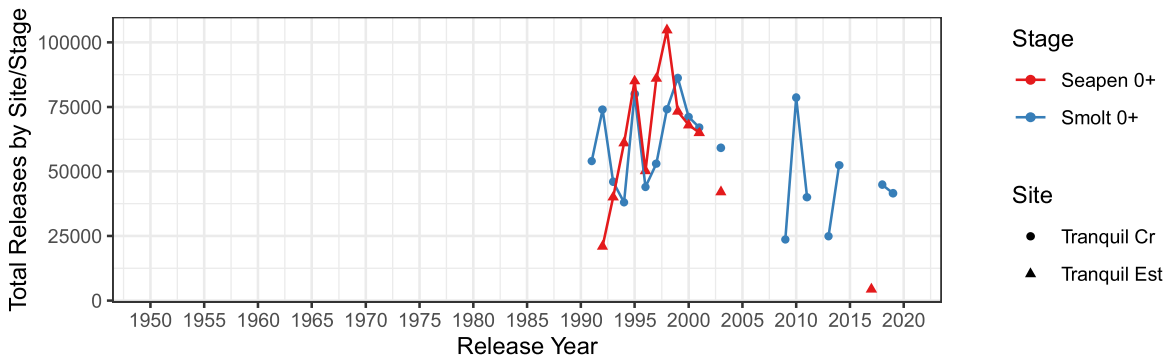
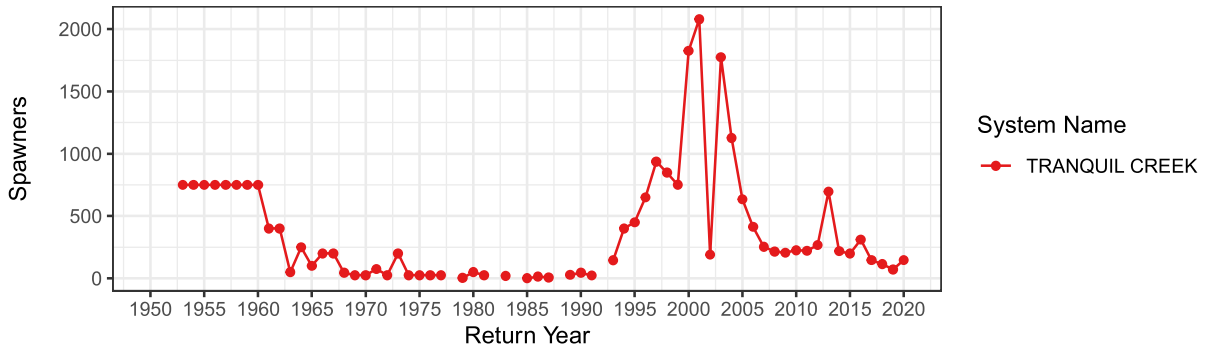


Spawners — Natural Origin — Total — Wild

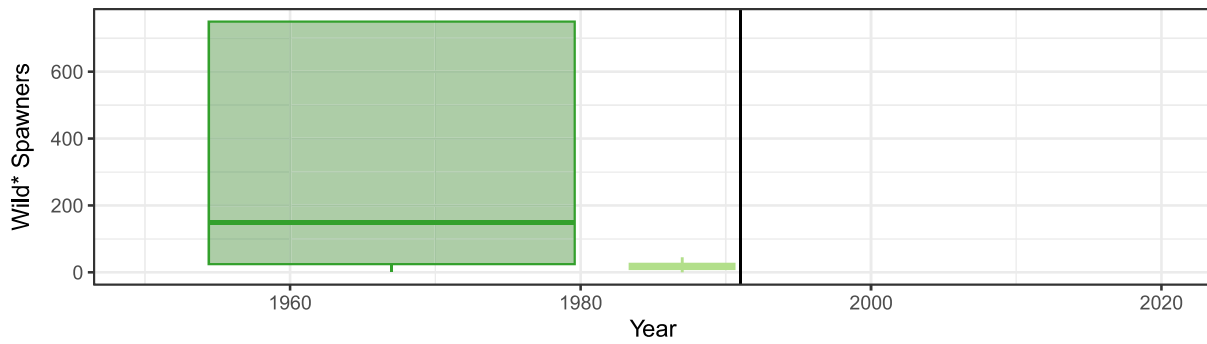
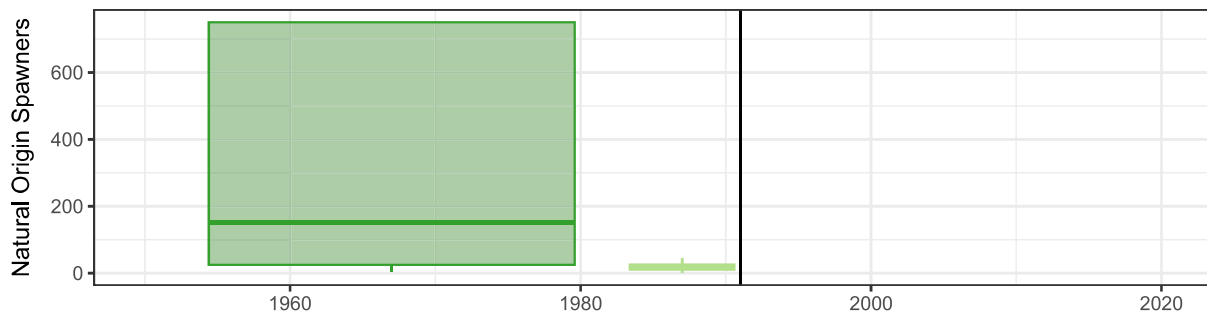
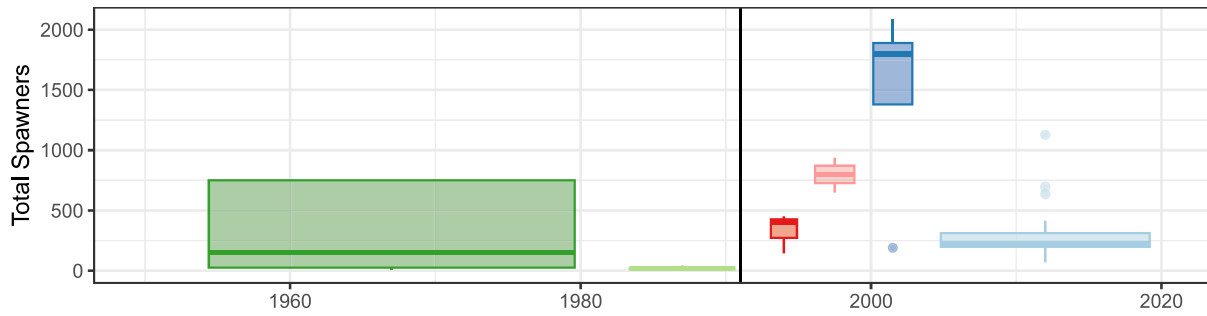
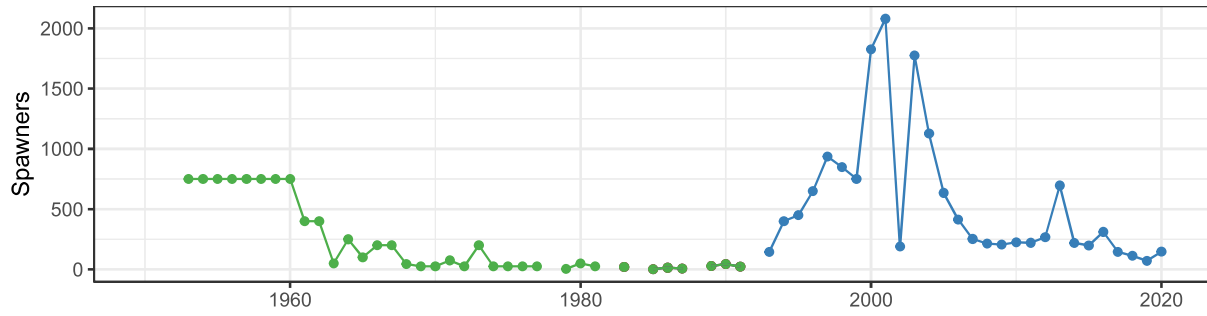
Period

- Gen3
- Post Gen3
- Gen1
- Pre
- Pre 2GL
- Gen2

Tranquil Creek (WCVI)
WEST VANCOUVER ISLAND-SOUTH_FA_0.x



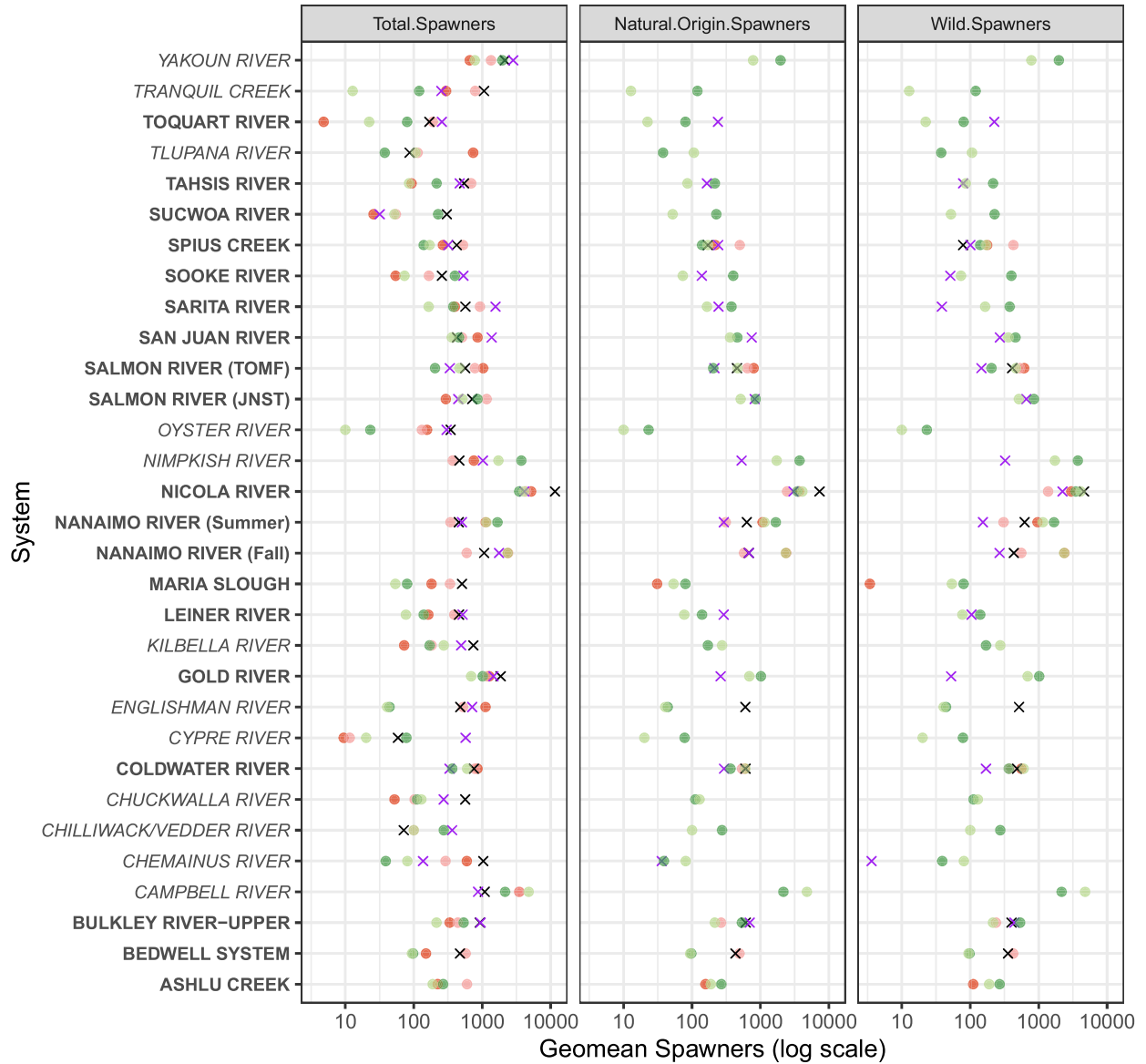
Total Spawners, Natural Origin Spawners, and Wild Spawners
 TRANQUIL CREEK (WCVI)



Spawners — Natural Origin — Total — Wild

Period

Gen3	Post Gen3	Gen1
Pre	Pre 2GL	Gen2



● Pre ● Gen1 ● Gen3
 ● Pre 2GL ● Gen2 ● Post Gen3

× Rebuilding Period × 3rd Gen/Post 3rd Gen ● Before 3rd Gen

