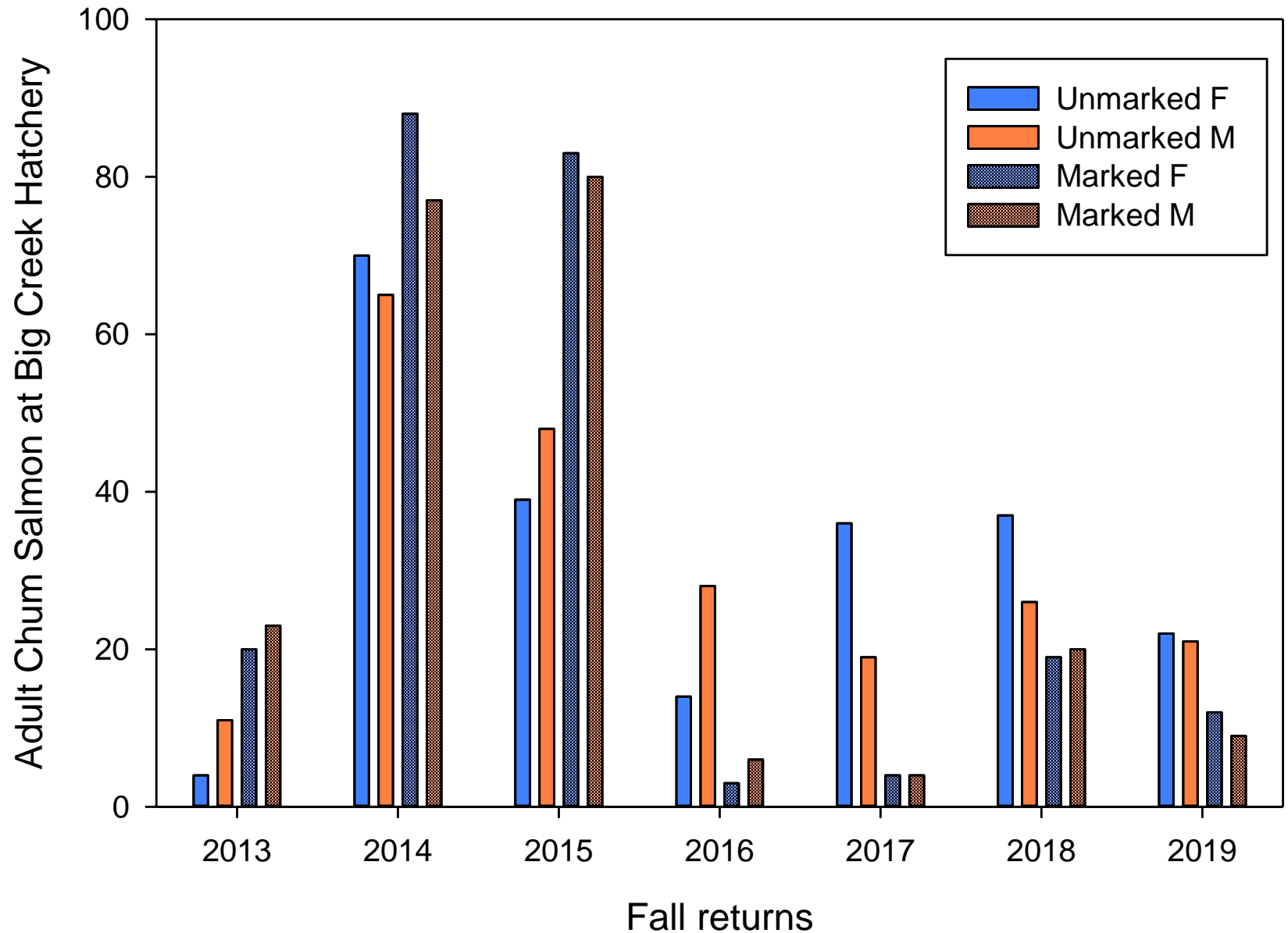


Chum Salmon Reintroduction Project (2019-20)

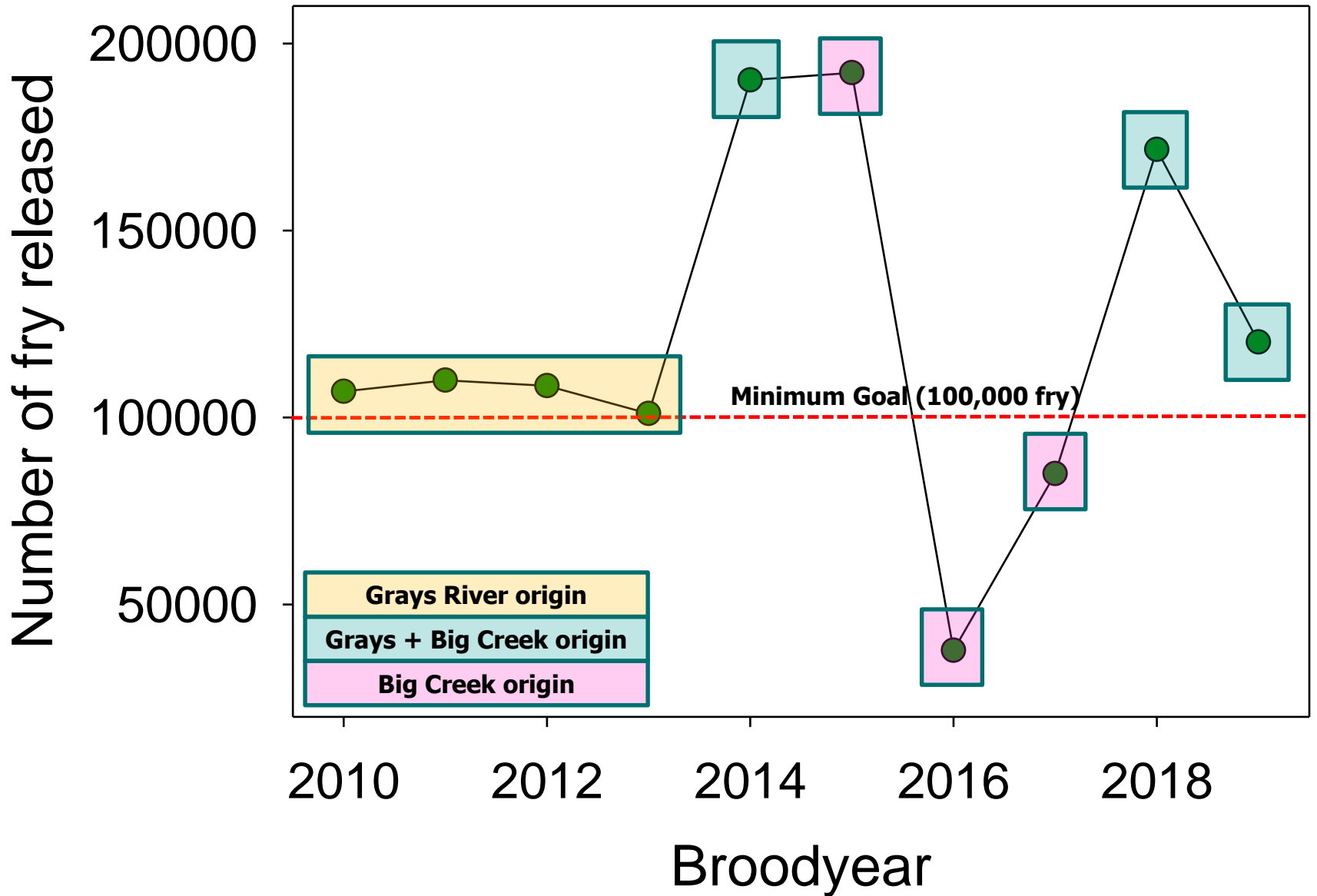
SALMON
SPAWNING
SURVEY

Derek Wiley
Assistant Project Leader
Oregon Department of Fish & Wildlife
93000 Ritter Road
Astoria, Oregon 97103

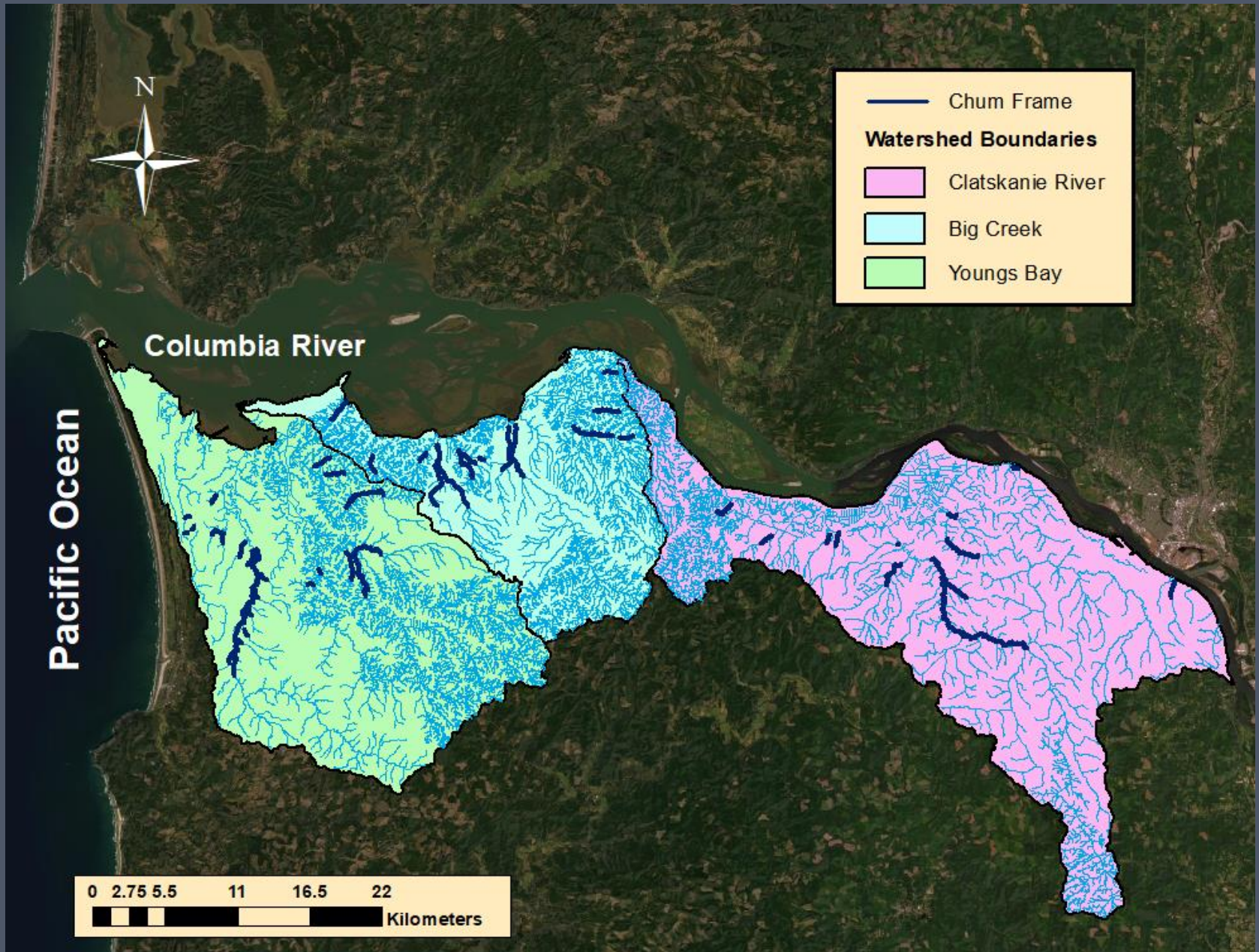
Broodstock Collection (Big Creek Hatchery)



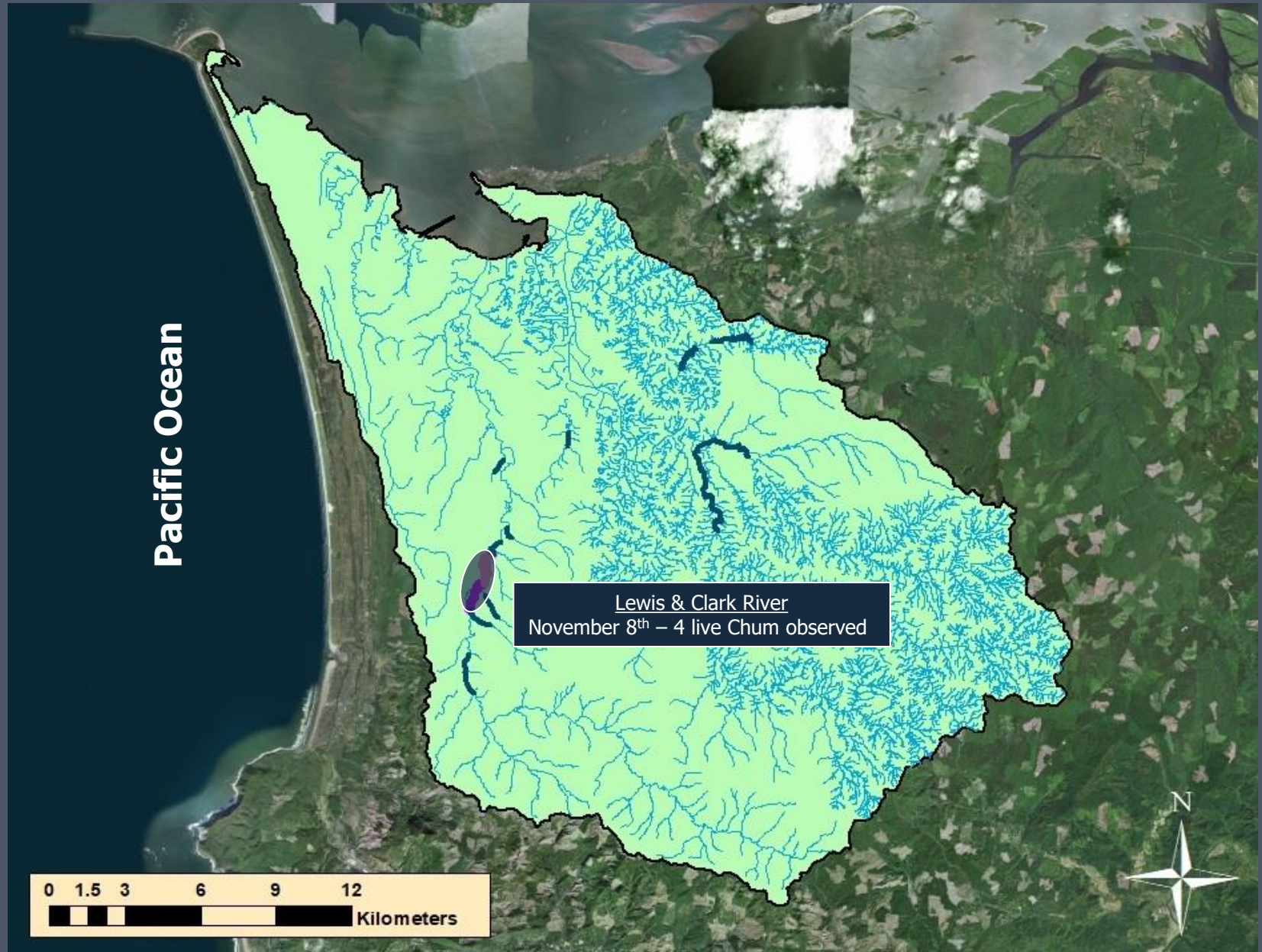
Chum Fry Releases (Big Creek Hatchery)



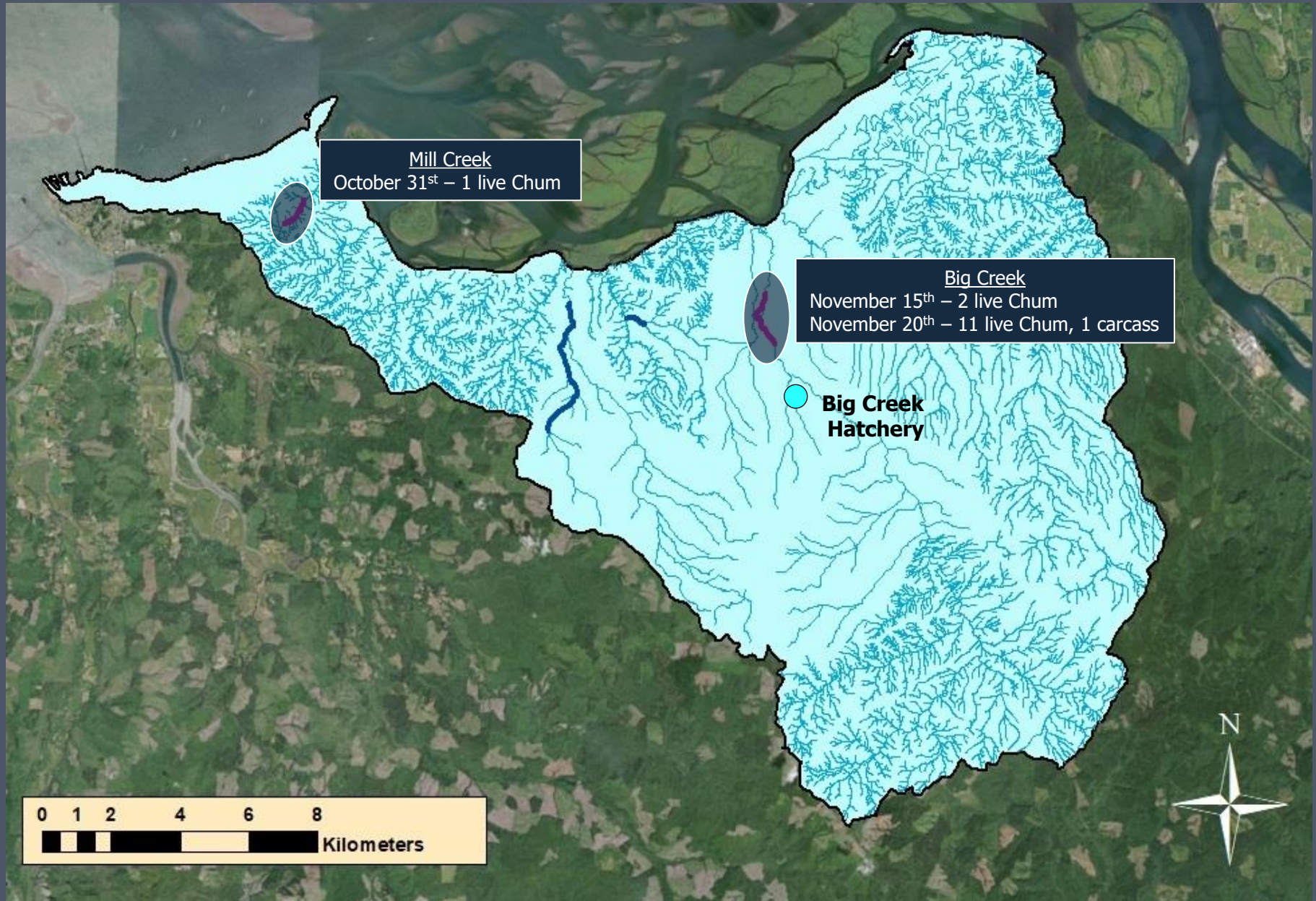
Spawning Surveys (LCR Chum Frame)



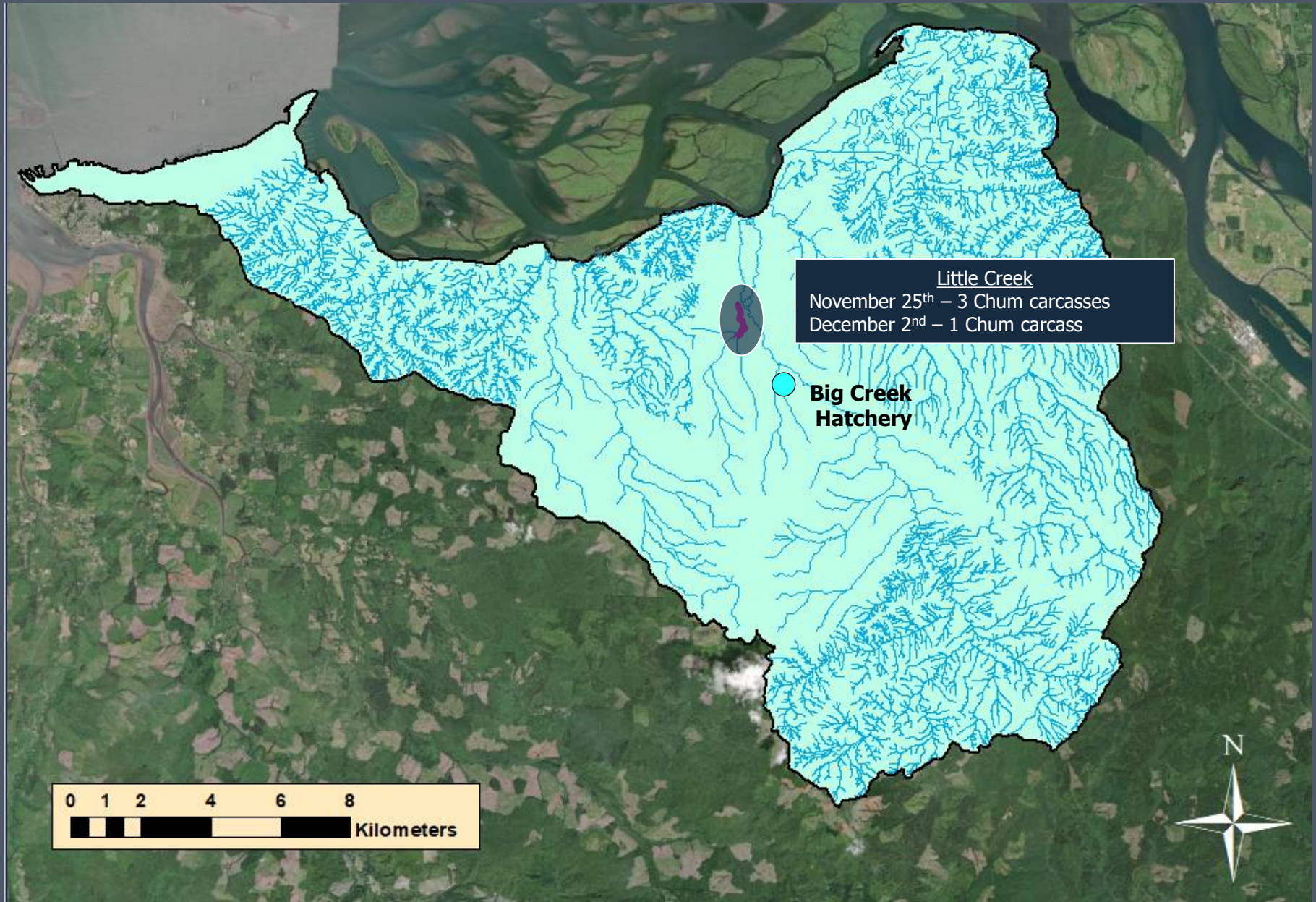
Spawning Surveys (Youngs Bay Watershed - 2017)



Spawning Surveys (Big Creek Watershed - 2018)



Spawning Surveys (Big Creek Watershed - 2019)



Screw Traps



Bear Creek (Screw Trap)



Pacific Ocean

Lower Columbia River



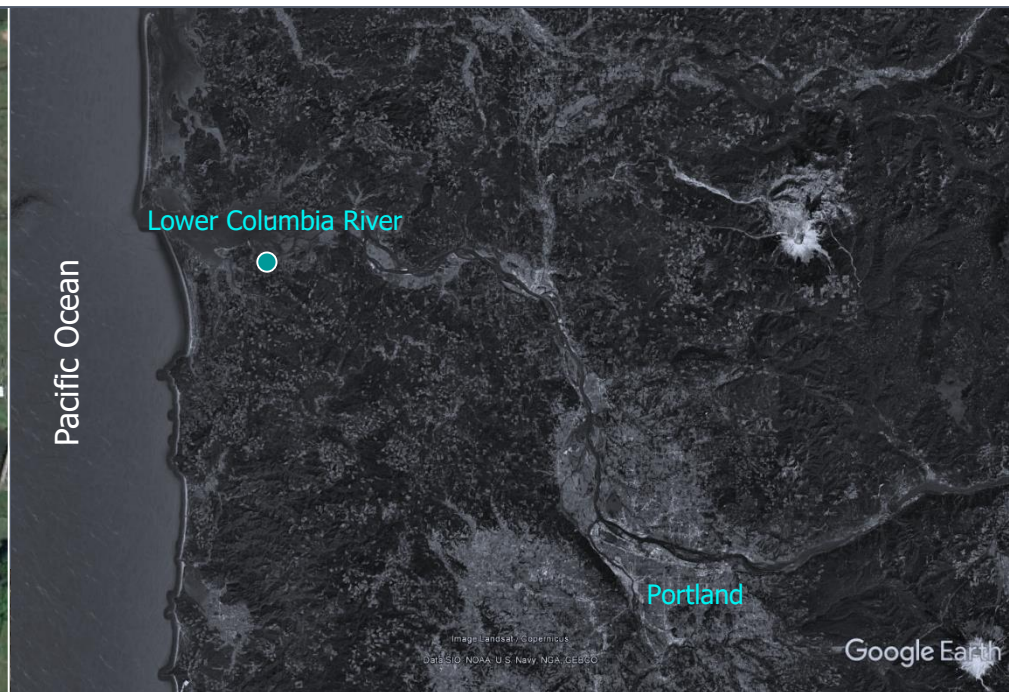
Portland

Image Landsat / Copernicus

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google Earth

Bear Creek (Screw Trap)



Bear Creek (Screw Trap)

Trap Operation (February 28 – May 25)

Continuous: 79 days

Partial: 2 days (stick in cone, low flow)

Pulled: 6 days



Bear Creek (Total Catch)



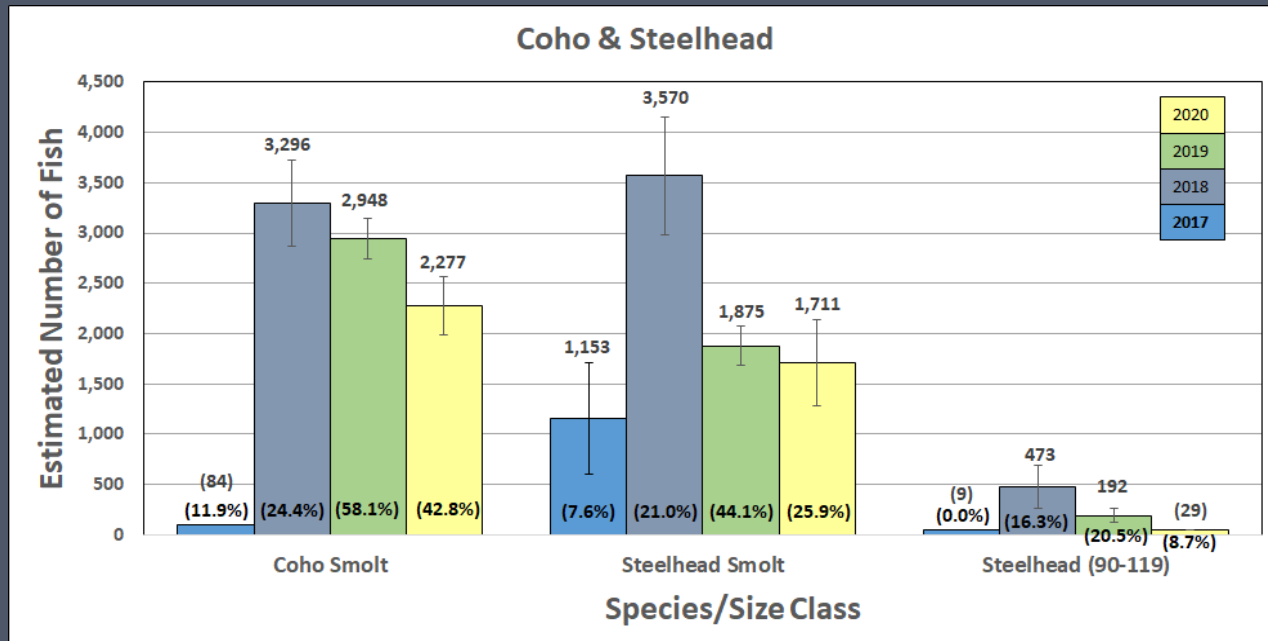
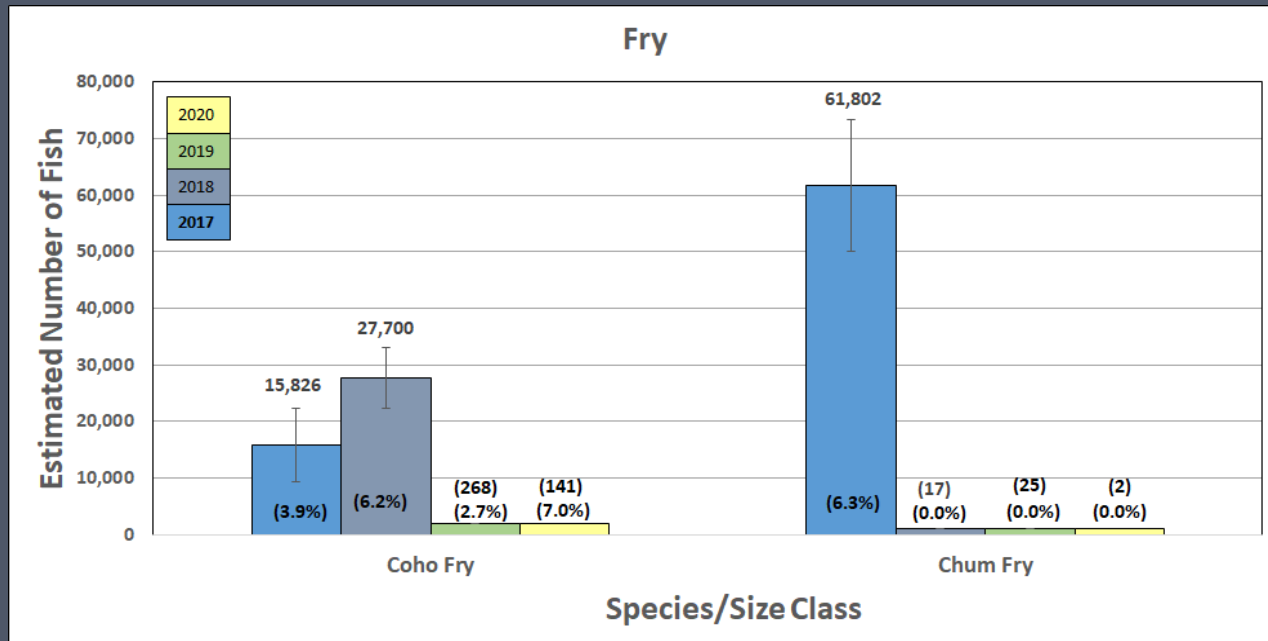
Species	Total Catch	Eff. (%)
Coho Fry	141	7.0%
Trout Fry	364	
Chum Fry	2	0.0%
Chinook All	0	
Steelhead (90-119)	29	8.7%
Steelhead (60-89)	2	50.0%
Cutthroat (≥ 250)	7	
Cutthroat (90-119)	10	50.0%
Cutthroat (60-89)	1	0.0%

Bear Creek (Abundance Estimates)



Species	Estimate (\pm CI)	Eff. (%)
Coho Smolts	2,277 \pm 292	42.8%
Coho Fry	141	7.0%
Trout Fry	364	
Chum Fry	2	0.0%
Chinook All	0	
Steelhead (\geq120)	1,711 \pm 425	25.9%
Steelhead (90-119)	29	8.7%
Steelhead (60-89)	2	50.0%
Cutthroat (\geq 250)	7	
Cutthroat (160-249)	610 \pm 218	31.0%
Cutthroat (120-159)	90 \pm 31	39.7%
Cutthroat (90-119)	10	50.0%
Cutthroat (60-89)	1	0.0%

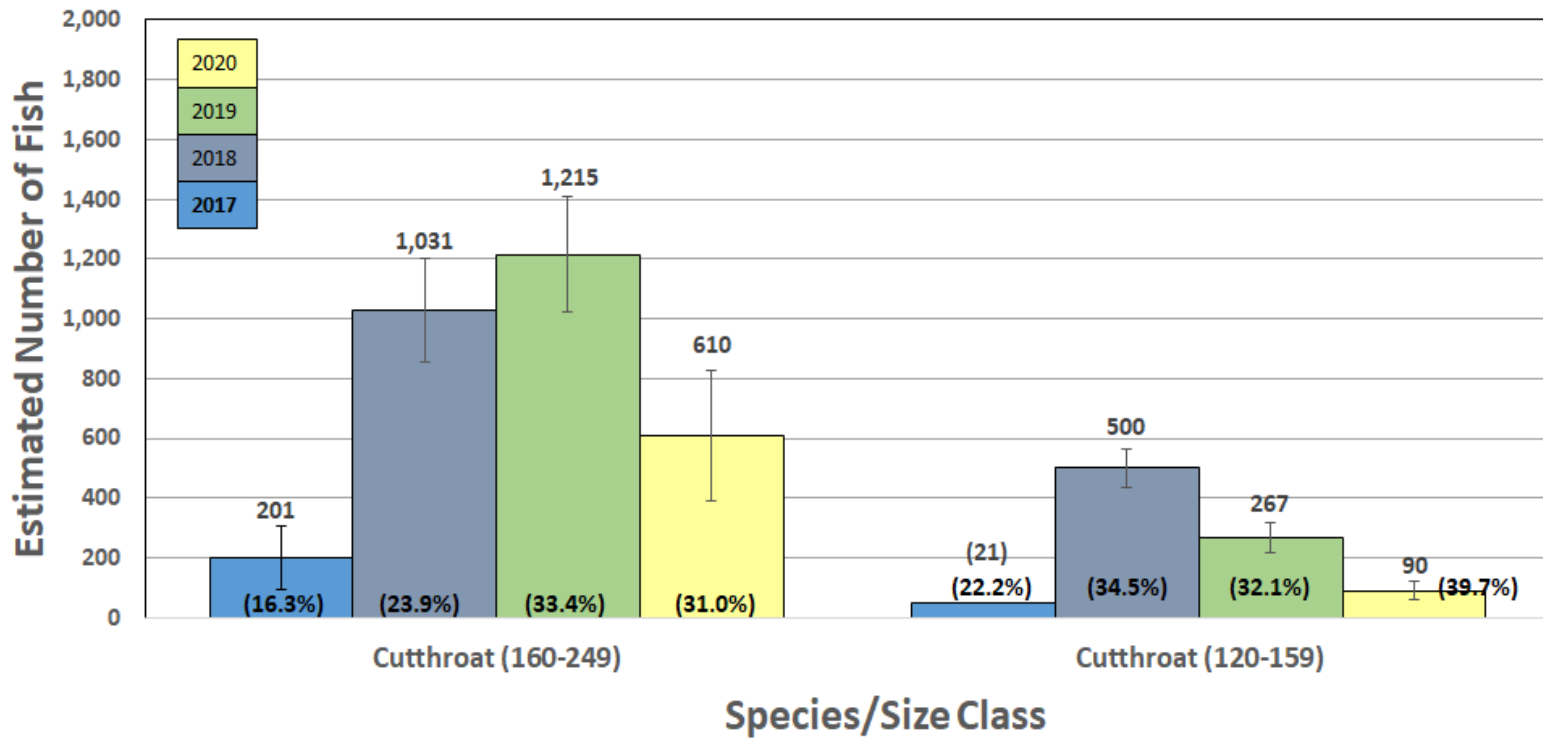
Bear Creek (2017 - 2020 Comparison)



Bear Creek (2017 - 2020 Comparison)



Cutthroat



Bear Creek (Hatchery Fish)



Species	Catch			
	2017	2018	2019	2020
Coho Smolt	1	49	221	
Steelhead Smolt	0	6	38	
Chinook	8	1	3	



Bear Creek (Hatchery Fish)



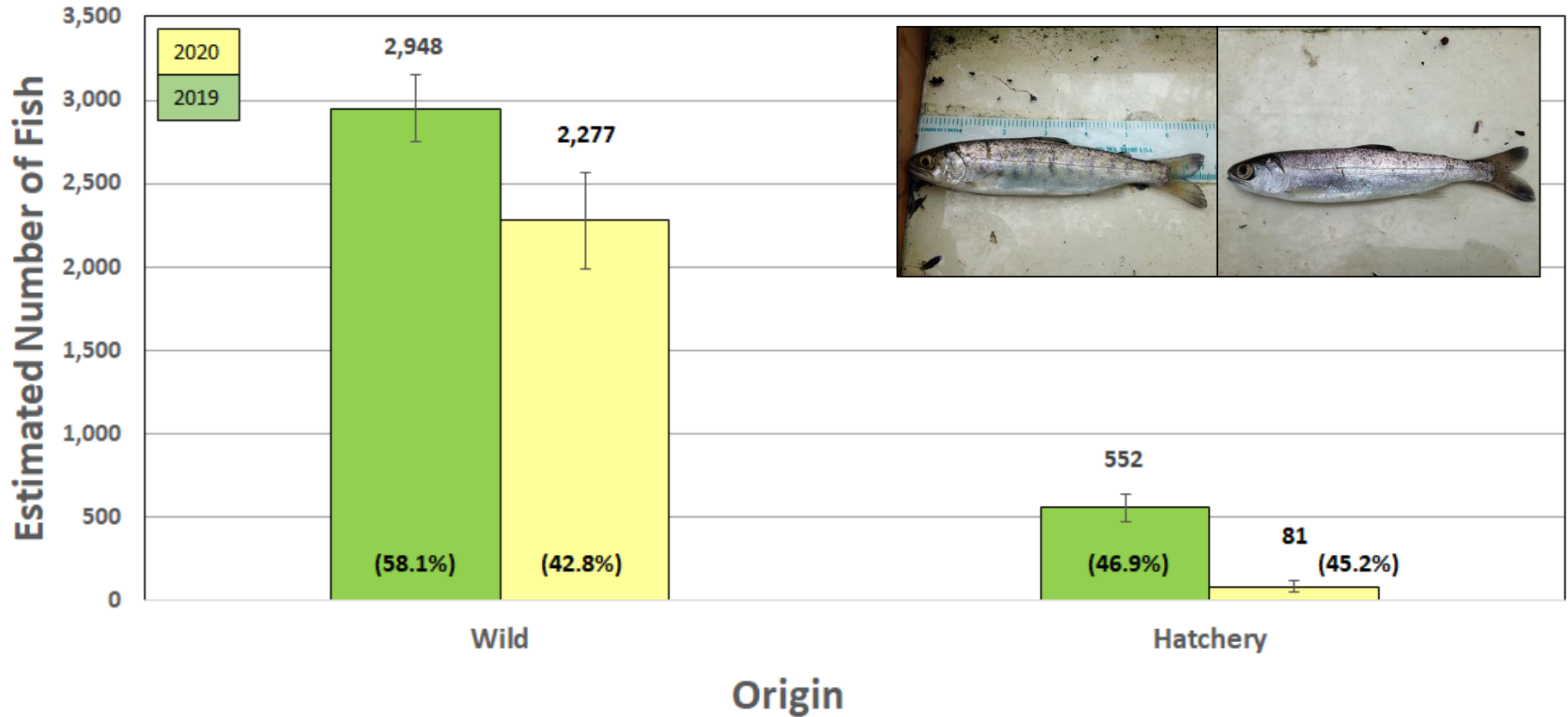
Species	Catch			
	2017	2018	2019	2020
Coho Smolt	1	49	221	34
Steelhead Smolt	0	6	38	8
Chinook	8	1	3	9

- * 2 Hatchery Coho detected positive for CWTs
- * 4 Hatchery Chinook detected positive for CWTs



Bear Creek (Hatchery Fish)

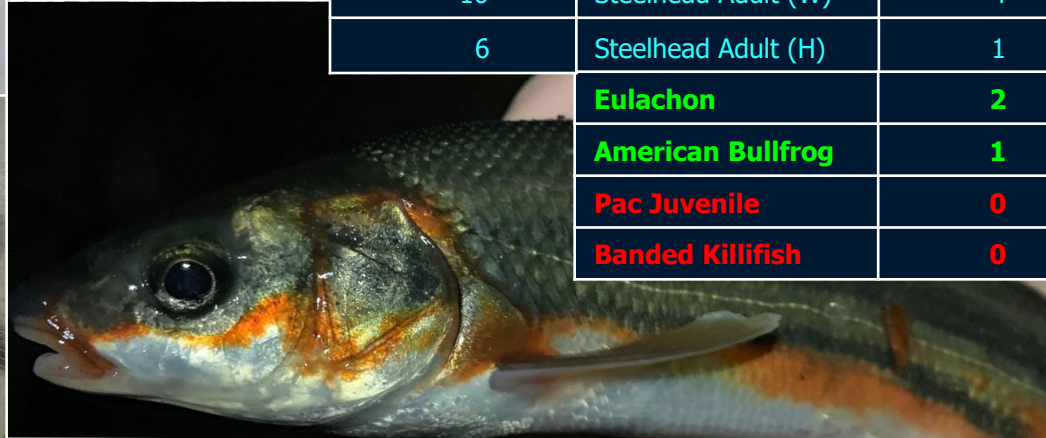
Coho Smolts (Wild vs. Hatchery)



Bear Creek (Other Species)



Catch (2019)	Species	Catch
24,792	Peamouth	24,878
391	Lamprey Larva	392
	Brook Lamprey Adult	283
	Cottid	254
	Largescale Sucker	84
	Pac Lamprey Adult	19
	Stickleback	2
16	Steelhead Adult (W)	4
6	Steelhead Adult (H)	1
	Eulachon	2
	American Bullfrog	1
	Pac Juvenile	0
	Banded Killifish	0



Clatskanie River

Pacific Ocean

Lower Columbia River



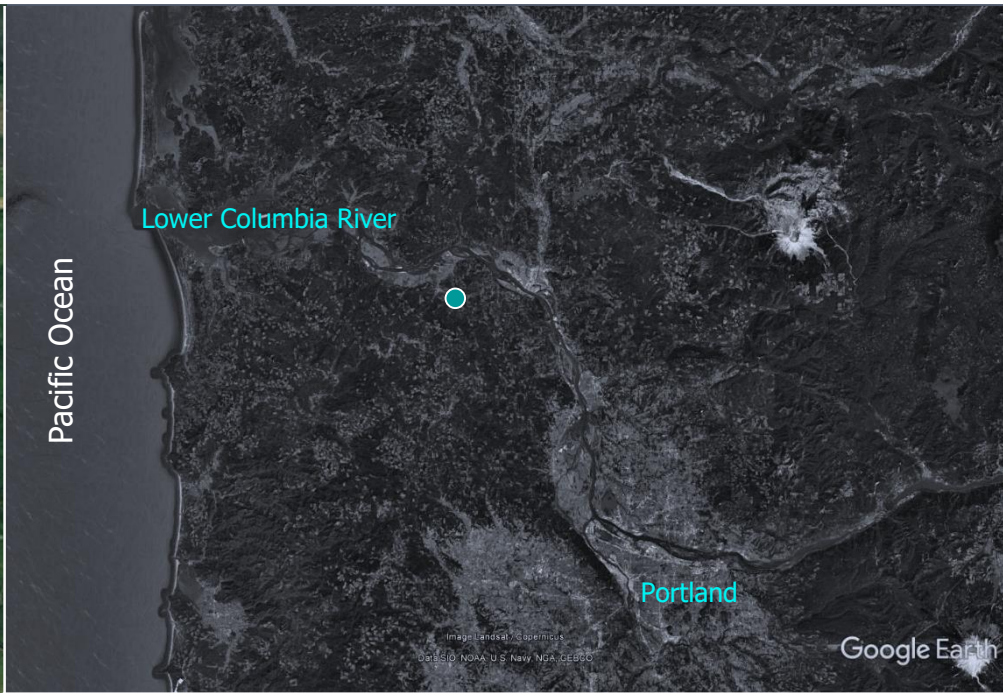
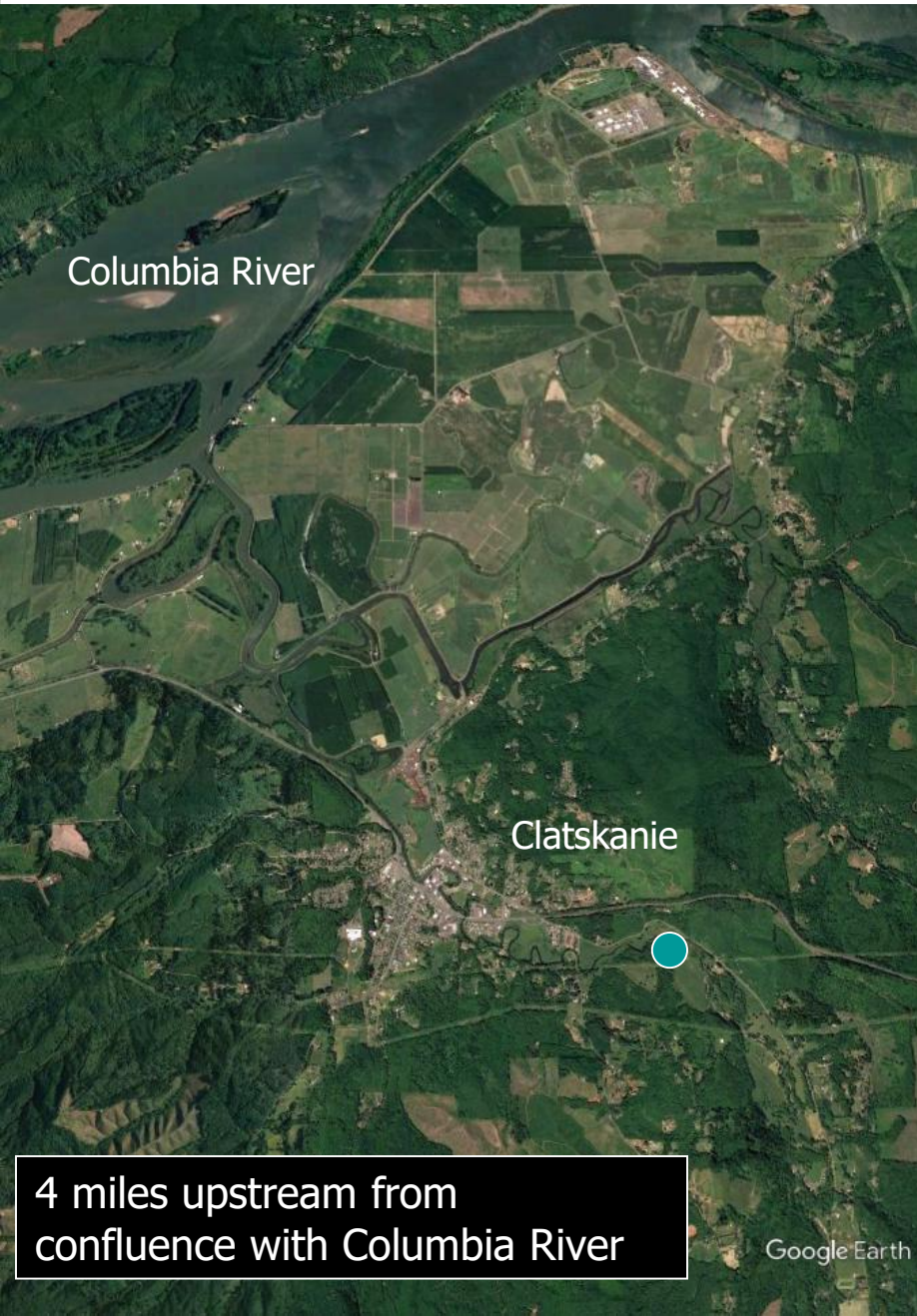
Portland

Image Landsat / Copernicus

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google Earth

Clatskanie River



Clatskanie River (Trap Operation)

Trap Operation (February 28 – June 6)

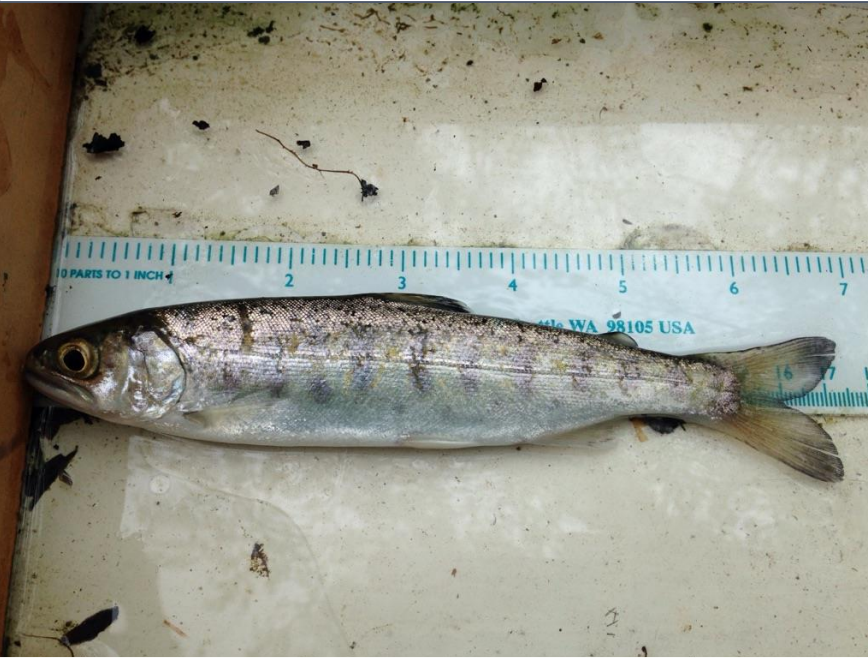
Continuous: 96 days

Partial: 2 days (sticks in cone)

Pulled: 2 days



Clatskanie River (Total Catch)



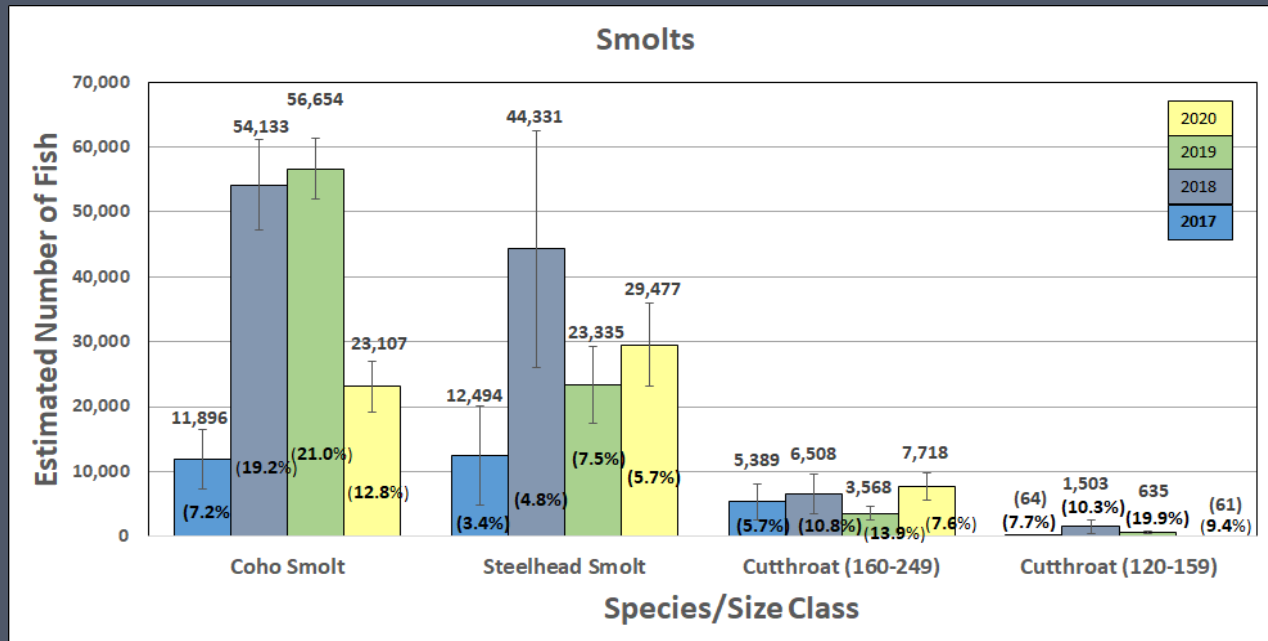
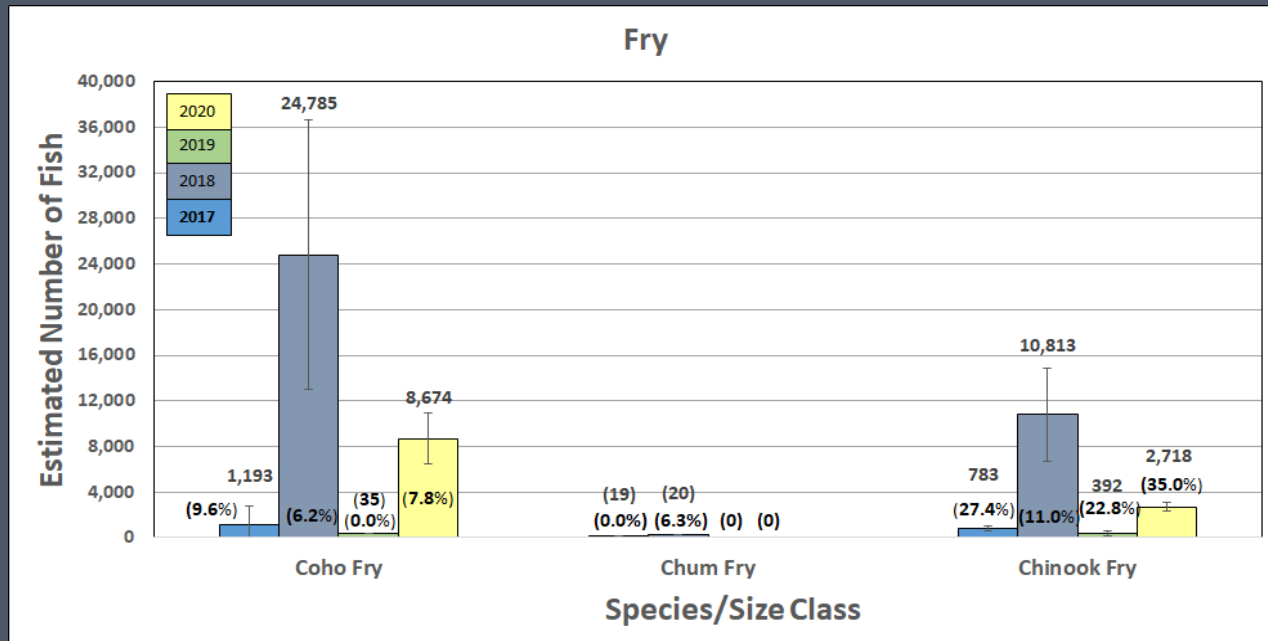
Species	Total Catch	Eff. (%)
Trout Fry	1,753	
Chum Fry	0	
Steelhead (90-119)	16	6.7%
Steelhead (60-89)	0	
Cutthroat (≥ 250)	28	
Cutthroat (120-159)	61	9.4%
Cutthroat (90-119)	9	11.1%
Cutthroat (60-89)	0	0%

Clatskanie River (Abundance Estimates)

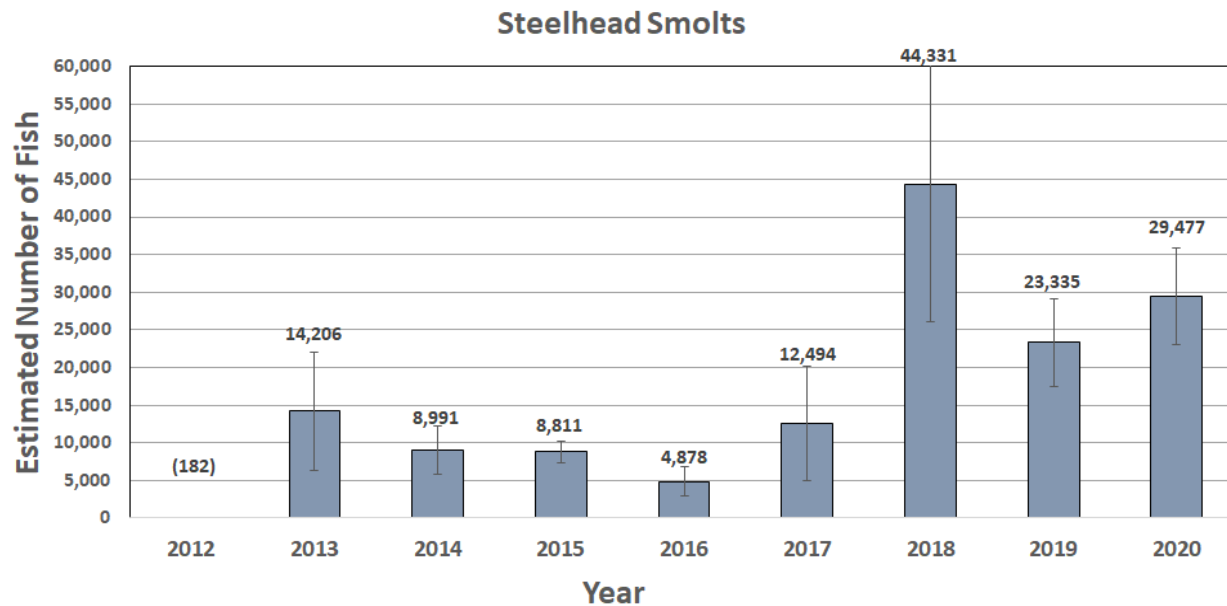
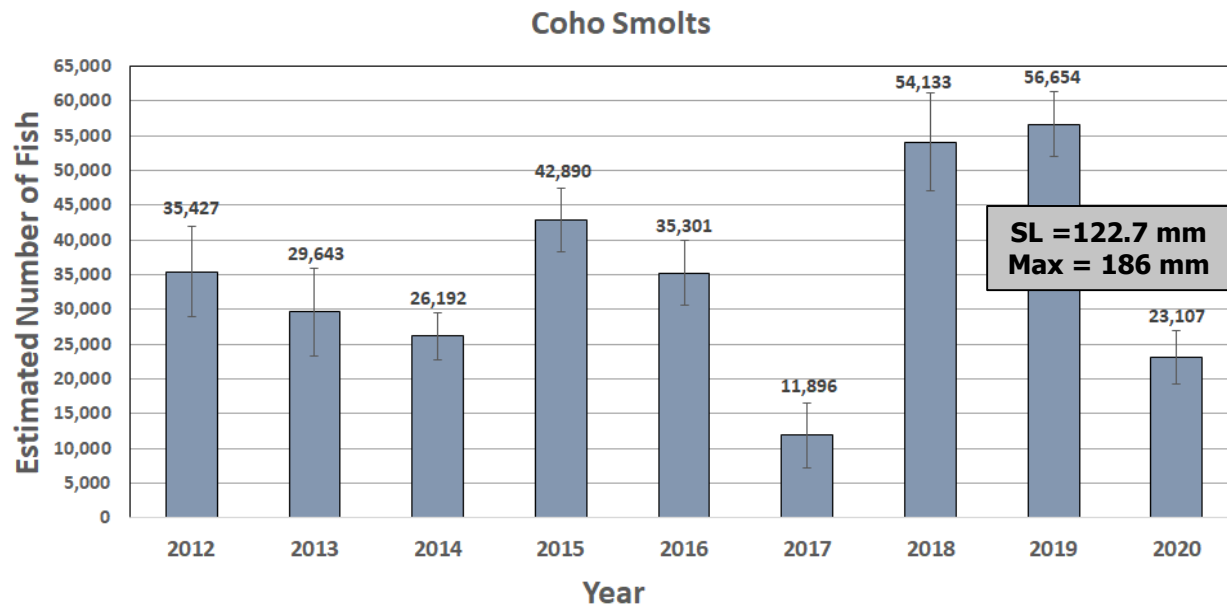


Species	Total Catch	Eff. (%)
Coho Smolt	23,107 ± 3,865	12.8%
Coho Fry	8,674 ± 2,227	7.8%
Trout Fry		
Chum Fry		
Chinook All	2,718 ± 372	35.0%
Steelhead (≥120)	29,477 ± 6,378	5.7%
Steelhead (90-119)		
Steelhead (60-89)		
Cutthroat (≥250)		
Cutthroat (160-249)	7,718 ± 2,140	7.6%
Cutthroat (120-159)		
Cutthroat (90-119)		
Cutthroat (60-89)		

Clatskanie River (2017 - 2020 Comparison)



Clatskanie River (Annual Comparison)



Clatskanie River (Hatchery Fish)



Species	Catch			
	2017	2018	2019	2020
Coho Smolt	0	1	0	
Steelhead Smolt	0	0	0	
Chinook	1	1	1	



Clatskanie River (Hatchery Fish)



Species	Catch			
	2017	2018	2019	2020
Coho Smolt	0	1	0	4
Steelhead Smolt	0	0	0	1
Chinook	1	1	1	8

* 2 Hatchery Chinook detected positive for CWTs



Clatskanie River (Other Species)



Species	Catch
Cottid	1,150
Stickleback	1,092
Brook Lamprey Adult	601
Lamprey Larva	406
Peamouth	326
Pac Lamprey Adult	283
Largescale Sucker	74
Northern Pikeminnow	28
Redside Shiner	25
Banded Killifish	9
Pac Lamprey Juvenile	3
Longnose Dace	2
Steelhead Adult	2
Smallmouth Bass	1
Common Goldfish	0
Goby	0
American Bullfrog	0

Clatskanie River (Other Species)



Species	Catch
Cottid	1,150
Stickleback	1,092
Brook Lamprey Adult	601
Lamprey Larva	406
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Banded Killifish	9
Pac Lamprey Juvenile	3
Longnose Dace	2
Steelhead Adult	2
Smallmouth Bass	1
Common Goldfish	0
Goby	0
American Bullfrog	0

Brook Lamprey Adult	
Year	Catch
2012	147
2013	327
2014	122
2015	61
2016	130
2017	259
2018	403
2019	460
2020	601



Clatskanie River (Other Species)



Pacific Lamprey Adult

Year	Catch
2012	22
2013	145
2014	158
2015	116
2016	142
2017	35
2018	112
2019	106
2020	283



Species	Catch
Cottid	1,150
Stickleback	1,092
Brook Lamprey Adult	601
Lamprey Larva	406
Peamouth	326
Pac Lamprey Adult	283
Largescale Sucker	74
Northern Pikeminnow	28
Redside Shiner	25
Banded Killifish	9
Pac Lamprey Juvenile	3
Longnose Dace	2
Steelhead Adult	2
Smallmouth Bass	1
Common Goldfish	0
Goby	0
American Bullfrog	0

Clatskanie River (Other Species)



339 – 520mm
***Smallest Individual (217mm)**
Dwarf???

Pacific Lamprey Adult

Year	Catch
2012	22
2013	145
2014	158
2015	116
2016	142
2017	35
2018	112
2019	106
2020	283

Species	Catch
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Banded Killifish	9
Pac Lamprey Juvenile	3
Longnose Dace	2
Steelhead Adult	2
Smallmouth Bass	1
Common Goldfish	0
Goby	0
American Bullfrog	0



Acknowledgements

Funding

Pacific Coastal Salmon Recovery Fund (NOAA)
Mitchell Act Funds

ODFW

Erik Suring
Kris Homel
Brian Libercajt
Lane Jackson

Landowners (Screw Traps)

Carl & Stephanie Smith (Clatskanie River)
Jama Evans (Bear Creek)
Russell & Kristen Mead (Bear Creek)
Scott and Bonnie Thompson (Bear Creek)



The Rodney Dangerfield of Fishes

"I don't get no respect!"



Questions?

We still need a few hundred more of these!

