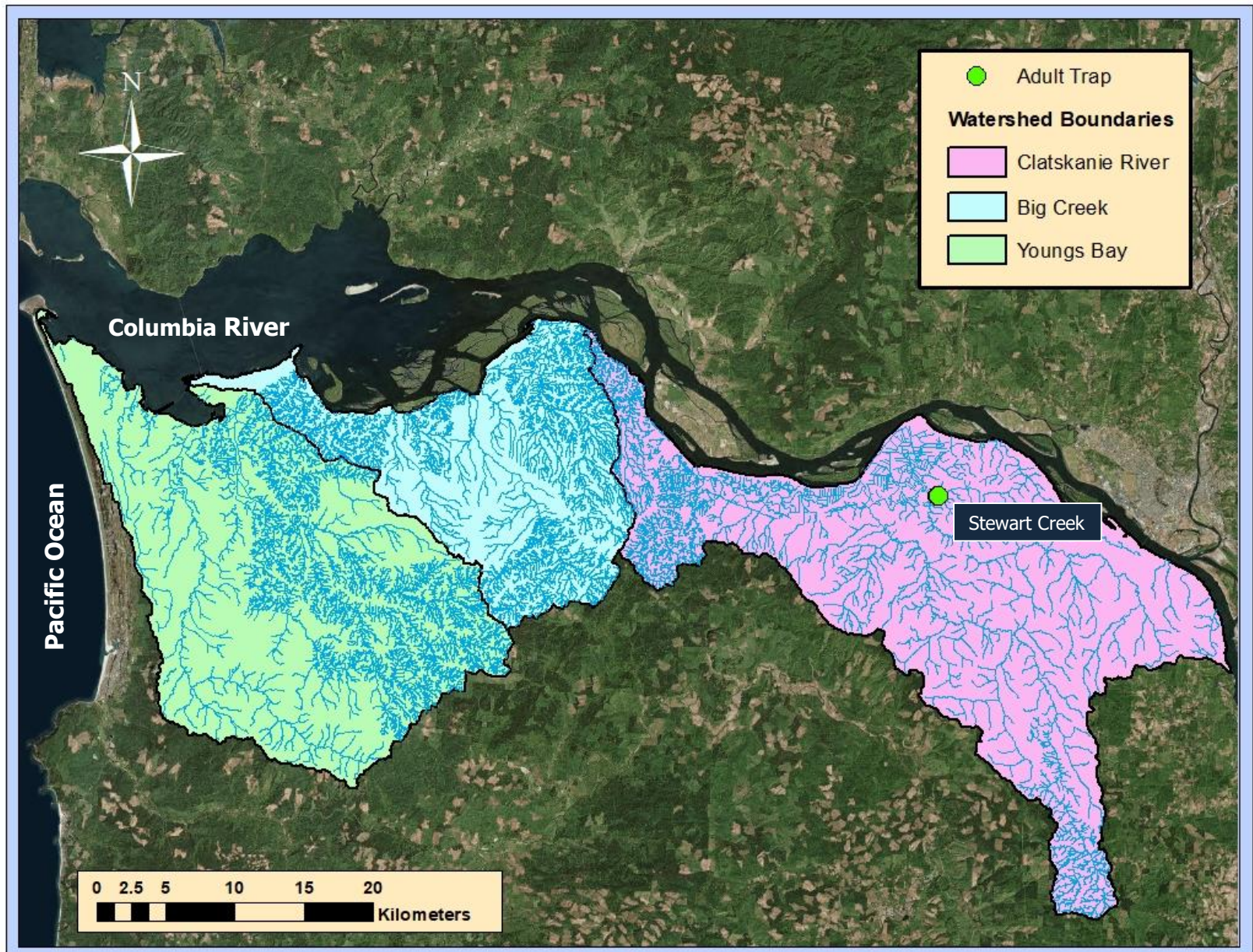


Chum Salmon Reintroduction Project (2018-19)

SALMON
SPAWNING
SURVEY

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

Adult Trapping (Stewart Creek)



Adult Trapping (Stewart Creek)



Adult Trap



Spawning Surveys

2017

- No live fish captured
- 5 wild Coho carcasses (3♂, 2♀)

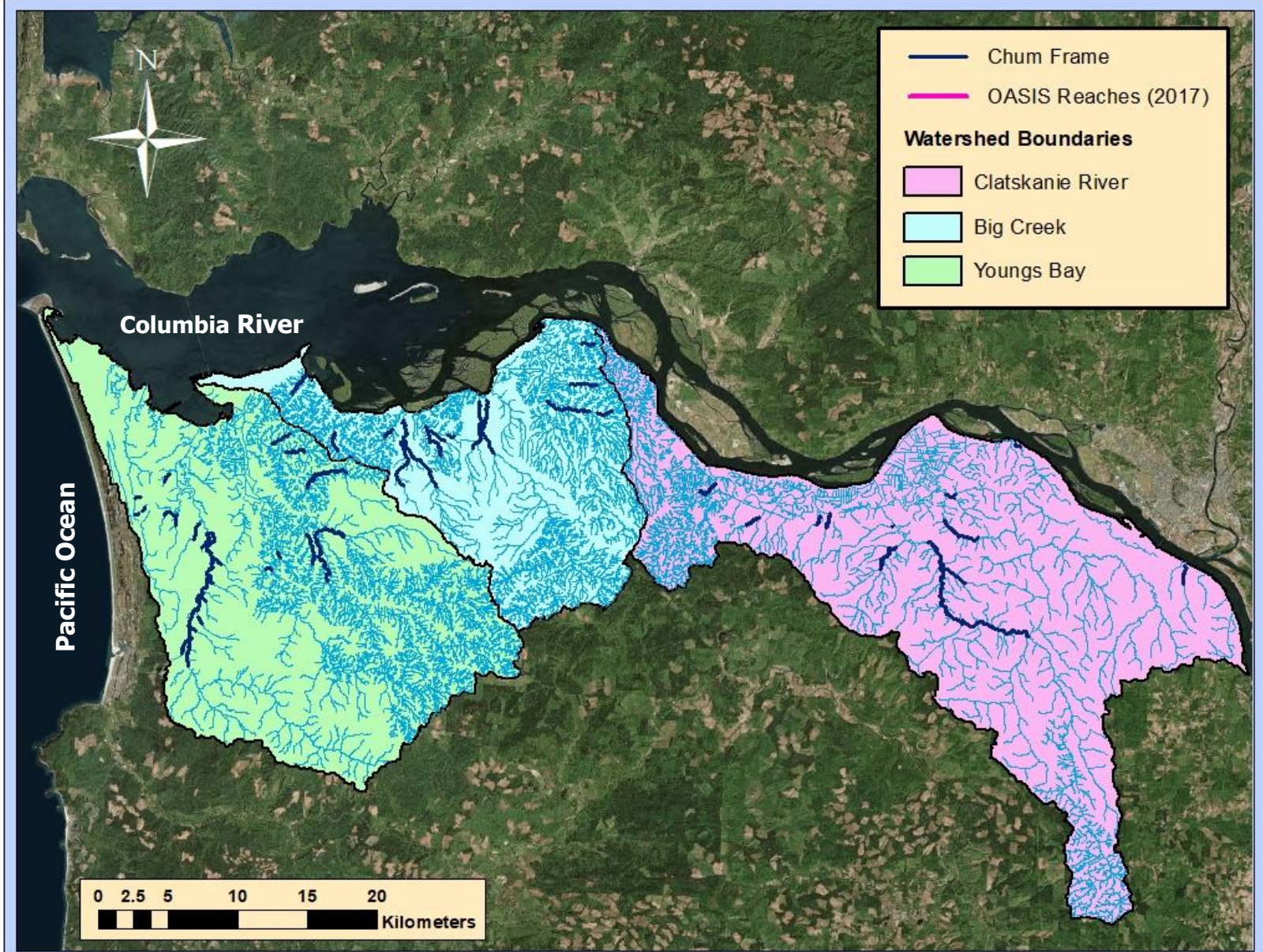
- 10 live Coho (8 wild, 2 unknown)
- 2 wild male Coho carcasses

2018

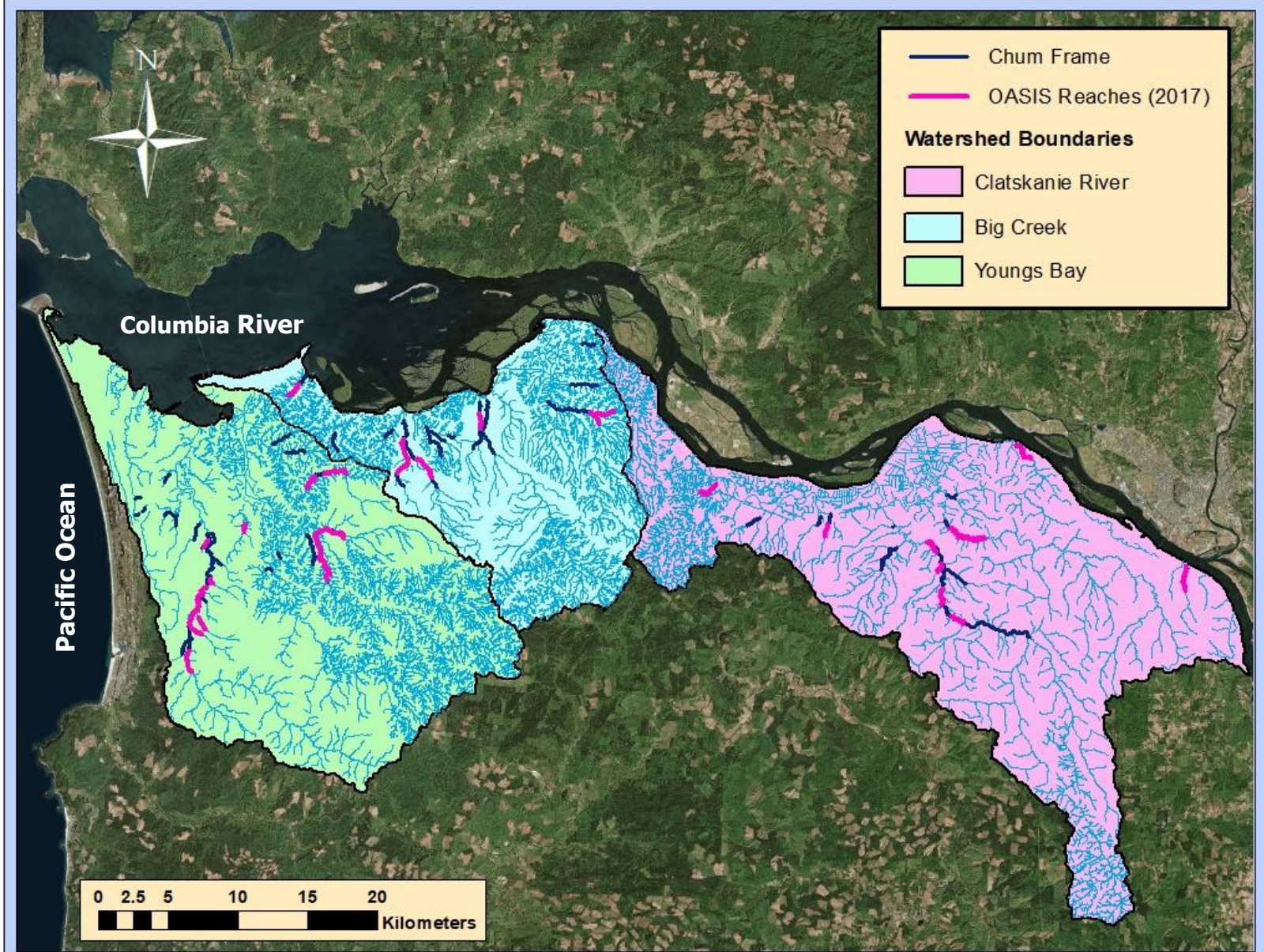
- 1 wild female Coho
- No carcasses

- No live Coho
- 1 wild female Coho carcass

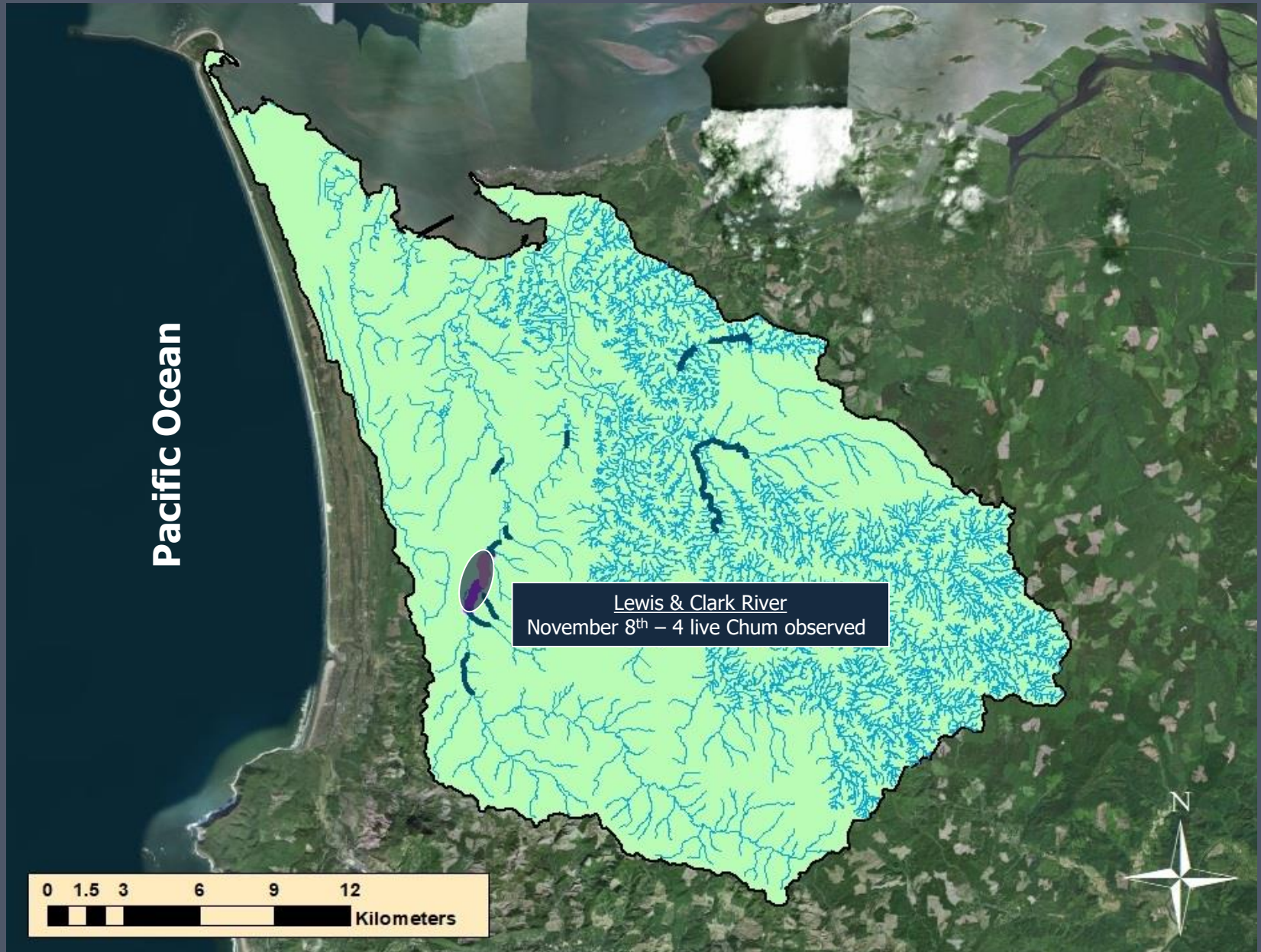
Spawning Surveys



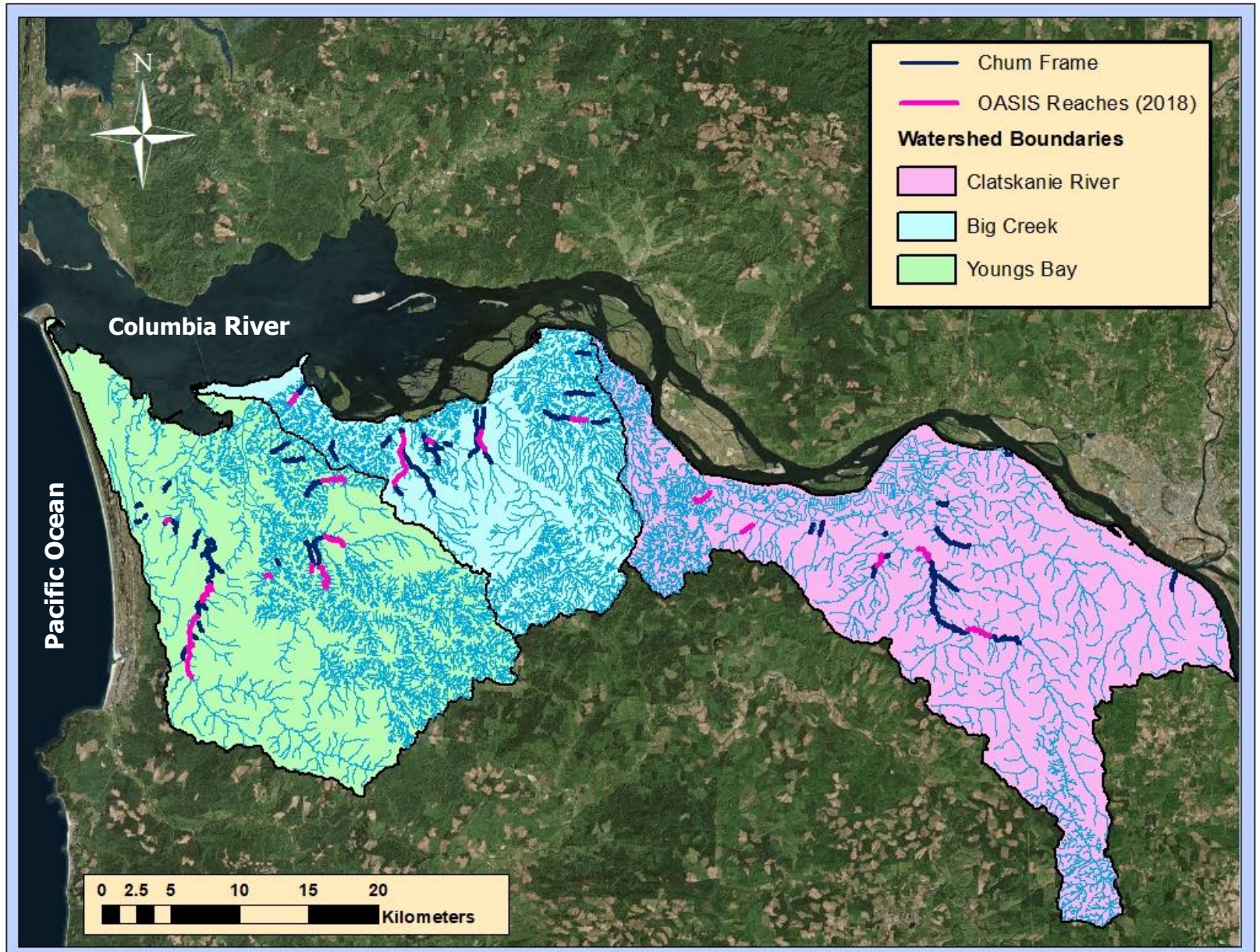
Spawning Surveys



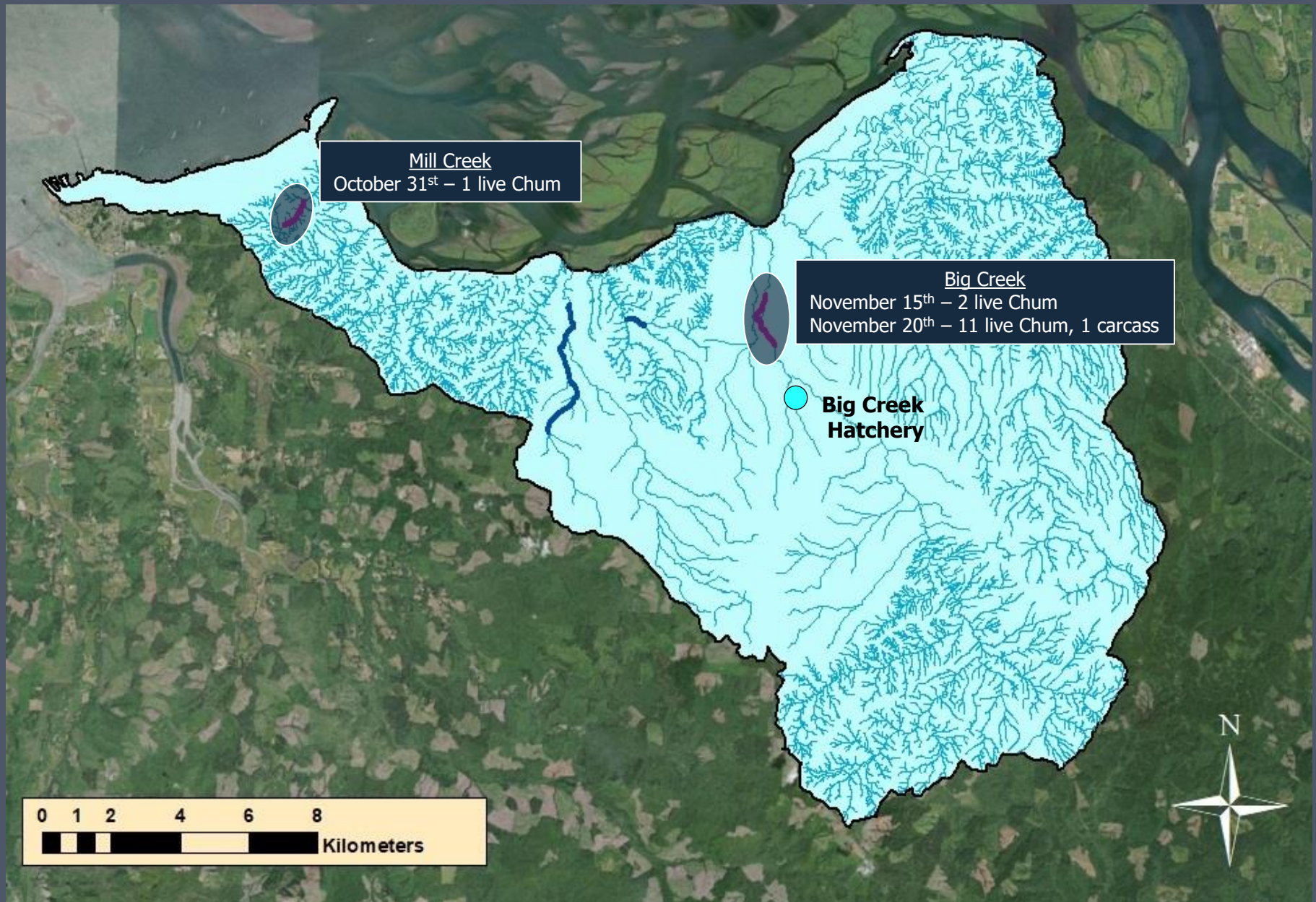
Spawning Surveys (Youngs Bay Watershed)



Spawning Surveys



Spawning Surveys (Big Creek Watershed)



Screw Traps



Bear Creek (Screw Trap)



Pacific Ocean

Lower Columbia River



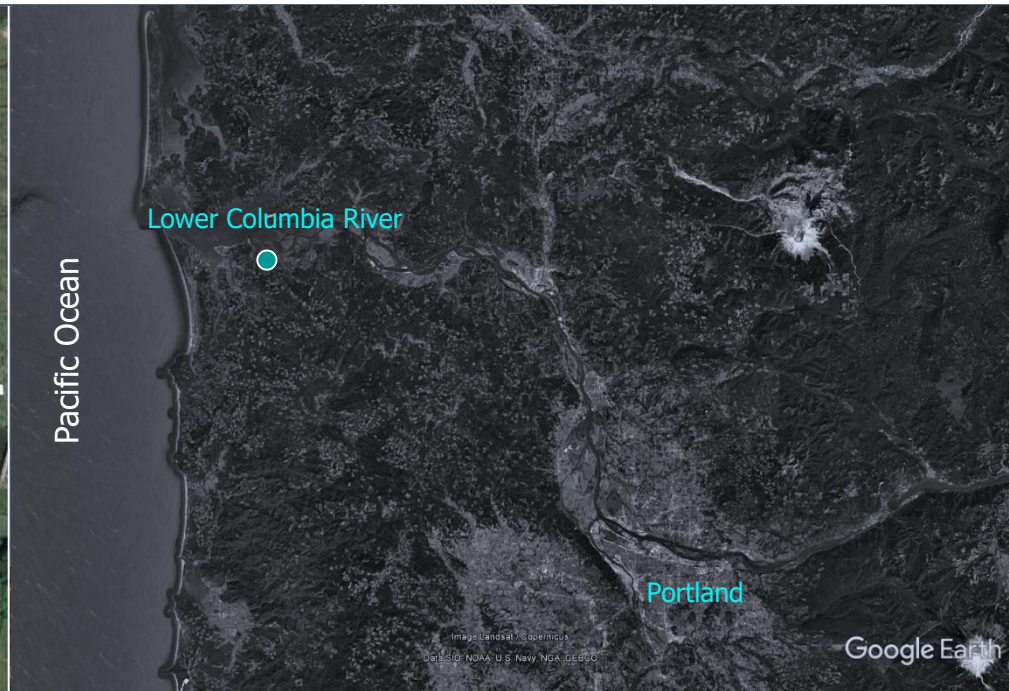
Portland

Image Landsat / Copernicus

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

Google Earth

Bear Creek (Screw Trap)

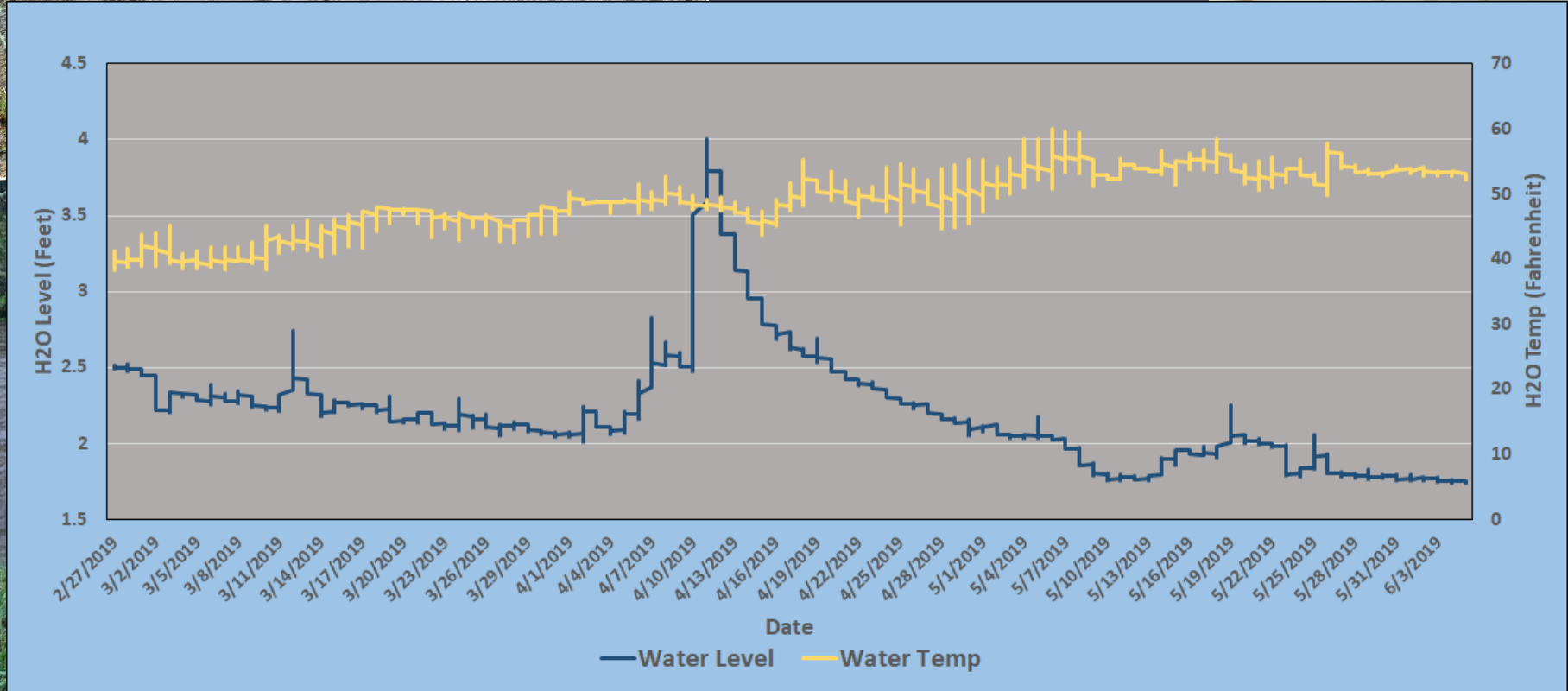


Bear Creek (Screw Trap)



Trap Operation (February 25 - May 25)

Continuous: 81 days
Stopped: 4 days
Pulled (Weather): 1 day
Pulled (Peamouth): 4 day



Bear Creek (Total Catch)



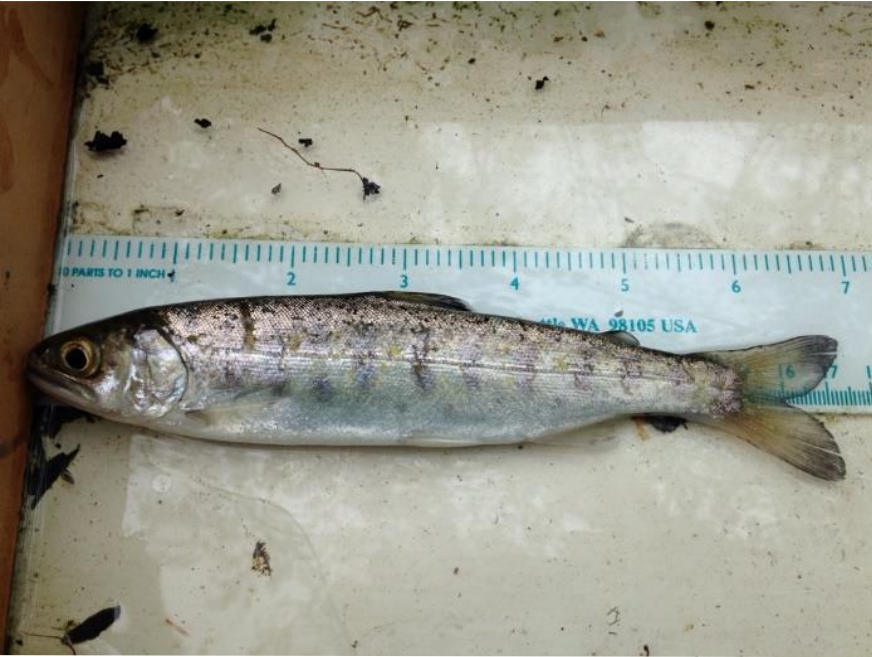
Species	Total Catch	Eff. (%)
Coho Fry	268	2.7%
Trout Fry	76	
Chum Fry	25	0.0%
Chinook All	2	0.0%
Steelhead (60-89)	1	100.0%
Cutthroat (≥ 250)	42	
Cutthroat (90-119)	4	0.0%
Cutthroat (60-89)	0	

Bear Creek (Total Catch)



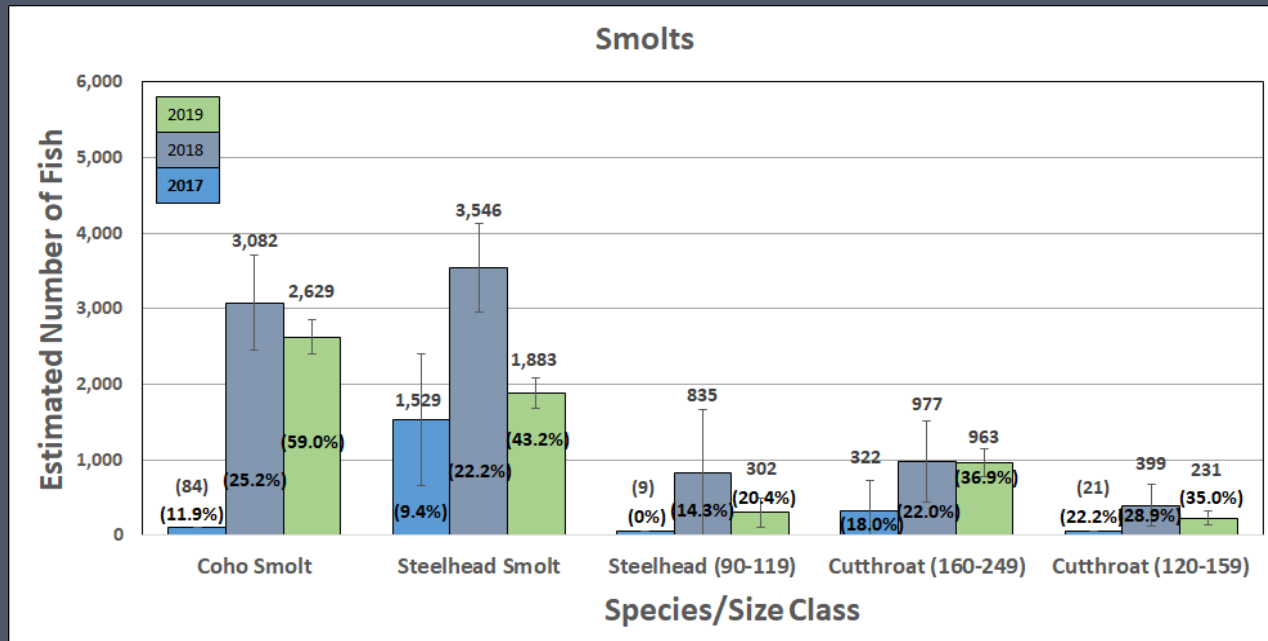
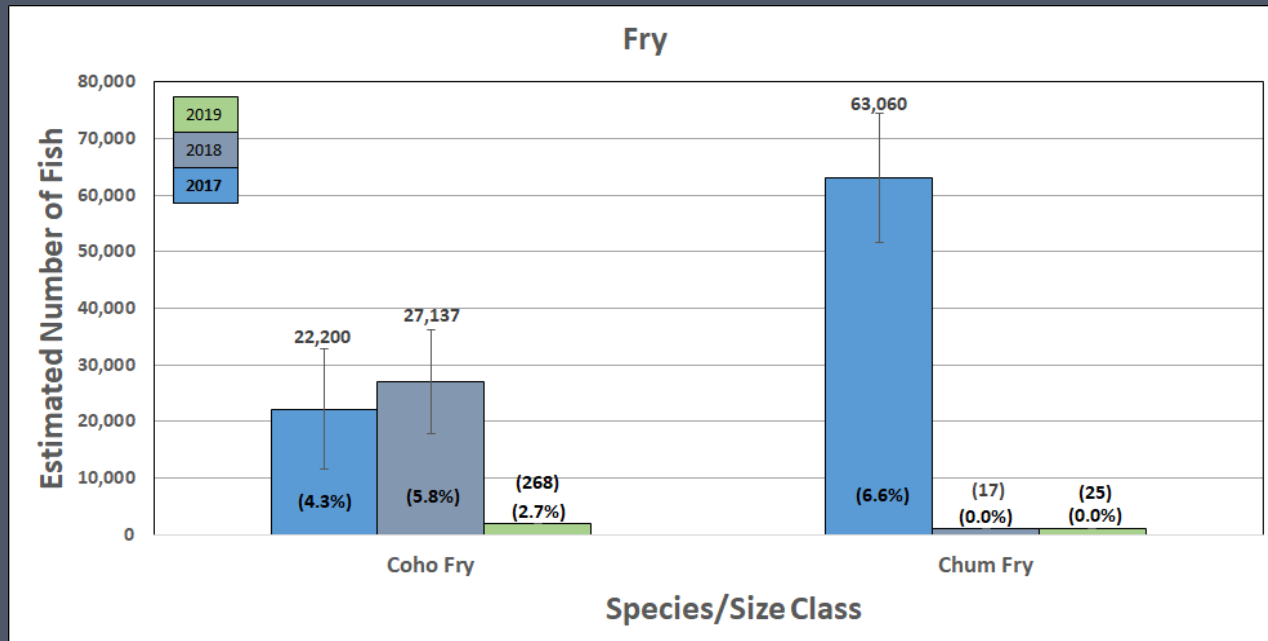
Species	Total Catch	Eff. (%)
Coho Smolts	1,380	59.0%
Coho Fry	268	2.7%
Trout Fry	76	
Chum Fry	25	0.0%
Chinook All	2	0.0%
Steelhead (≥120)	765	43.2%
Steelhead (90-119)	53	20.4%
Steelhead (60-89)	1	100.0%
Cutthroat (≥250)	42	
Cutthroat (160-249)	322	36.9%
Cutthroat (120-159)	71	35.0%
Cutthroat (90-119)	4	0.0%
Cutthroat (60-89)	0	

Bear Creek (Abundance Estimates)

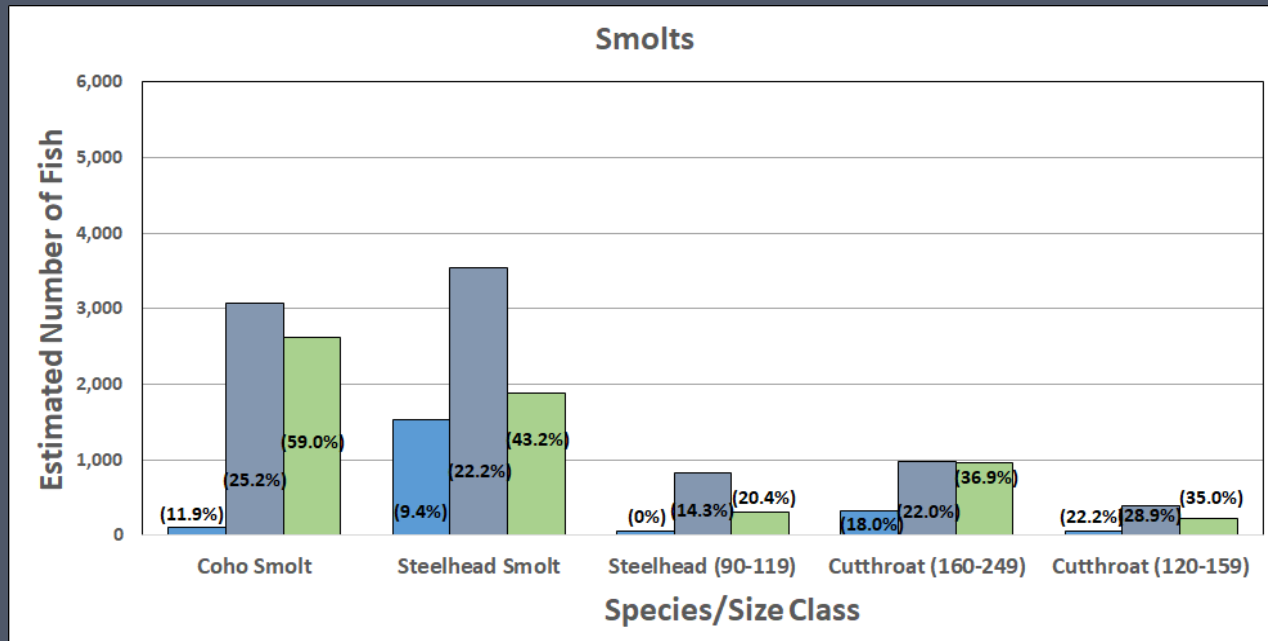
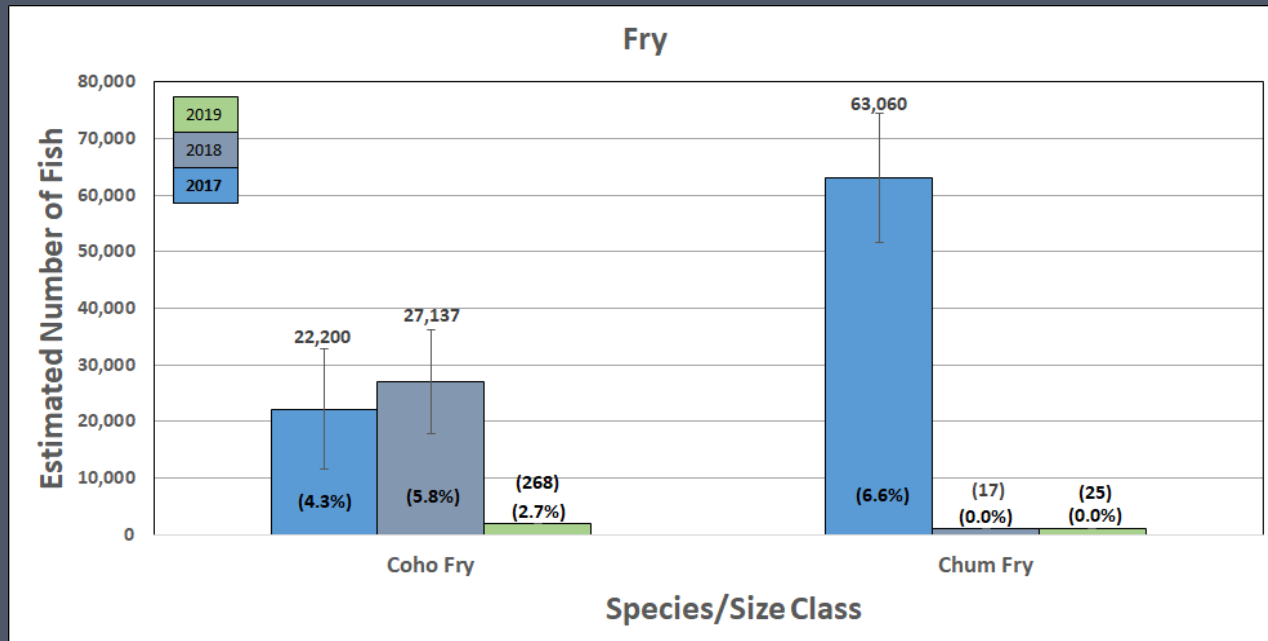


Species	Estimate (\pm CI)	Eff. (%)
Coho Smolts	2,629 \pm 220	59.0%
Coho Fry	(268)	2.7%
Trout Fry	(76)	
Chum Fry	(25)	0.0%
Chinook All	(2)	0.0%
Steelhead (\geq120)	1,883 \pm 194	43.2%
Steelhead (90-119)	302 \pm 196	20.4%
Steelhead (60-89)	(1)	100.0%
Cutthroat (\geq 250)	(45)	
Cutthroat (160-249)	963 \pm 184	36.9%
Cutthroat (120-159)	231 \pm 92	32.8%
Cutthroat (90-119)	(4)	0.0%
Cutthroat (60-89)	(0)	

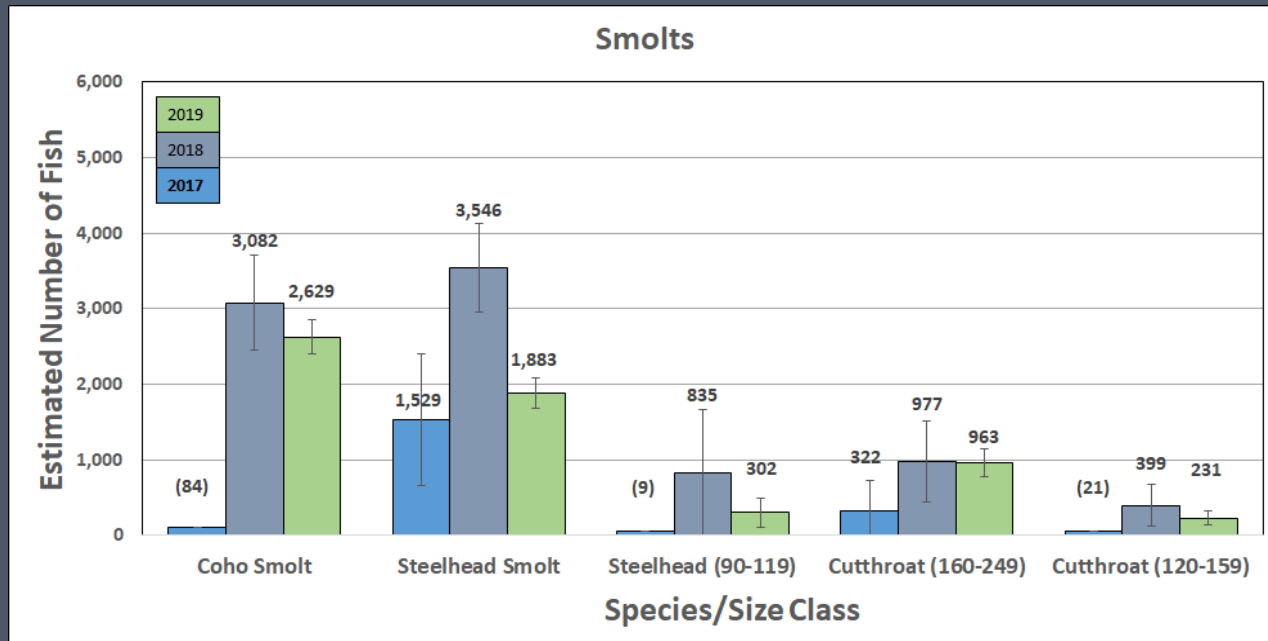
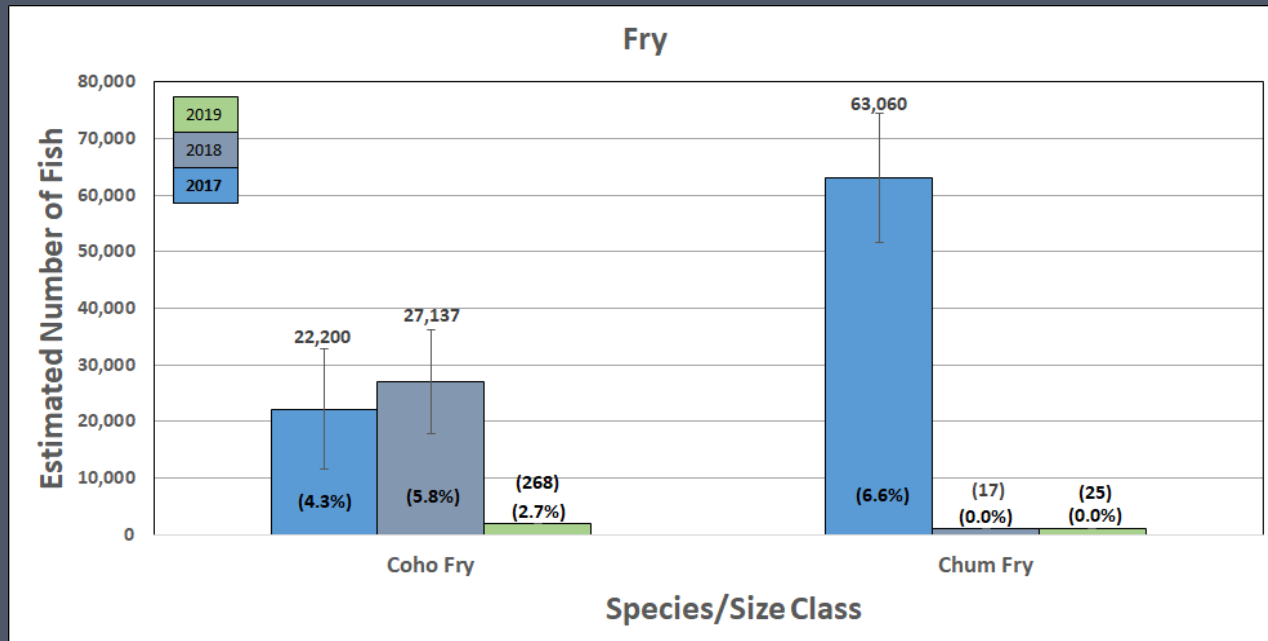
Bear Creek (2017 - 2019 Comparison)



Bear Creek (2017 - 2019 Comparison)



Bear Creek (2017 - 2019 Comparison)



Bear Creek (Hatchery Fish)



Species	Catch		
	2017	2018	2019
Coho Smolt			
Steelhead Smolt			
Chinook			



Bear Creek (Hatchery Fish)



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



Bear Creek (Hatchery Fish)



Species	Catch		
	2017	2018	2019
Coho Smolt	1	49	
Steelhead Smolt	0	6	
Chinook	8	1	



Bear Creek (Hatchery Fish)

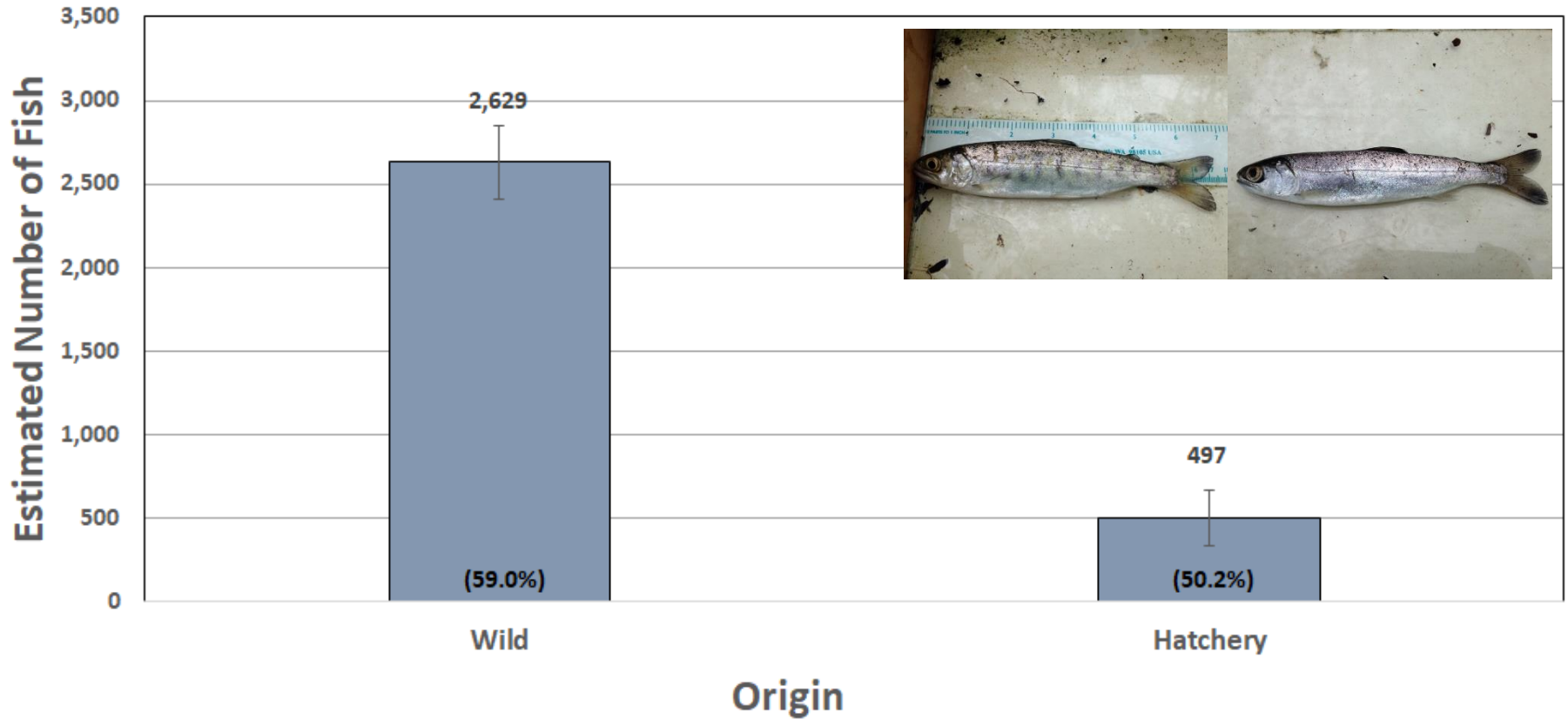


Species	Catch		
	2017	2018	2019
Coho Smolt	1	49	221
Steelhead Smolt	0	6	38
Chinook	8	1	3



Bear Creek (Hatchery Fish)

Coho Smolts (Wild vs. Hatchery)



Bear Creek (Other Species)



Species	Catch
Peamouth	24,792
Brook Lamprey Adult	471
Lamprey Larva	391
Cottid	370
Largescale Sucker	368
Pac Lamprey Adult	16
Pac Lamprey Juvenile	5
Stickleback	4
Banded Killifish	2



Bear Creek (Other Species)



Species	Catch
Peamouth	24,792
Brook Lamprey Adult	471
Lamprey Larva	391
Cottid	370
Largescale Sucker	368
Pac Lamprey Adult	16
Pac Lamprey Juvenile	5
Stickleback	4
Banded Killifish	2
Steelhead Adult (W)	16
Steelhead Adult (H)	6



Clatskanie River

Pacific Ocean

Lower Columbia River



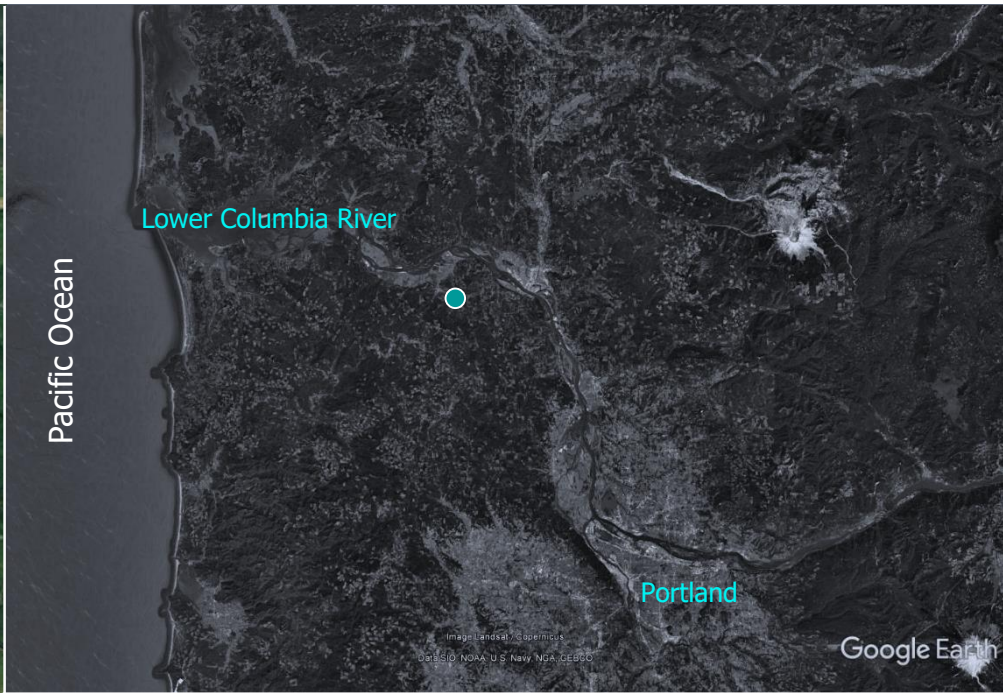
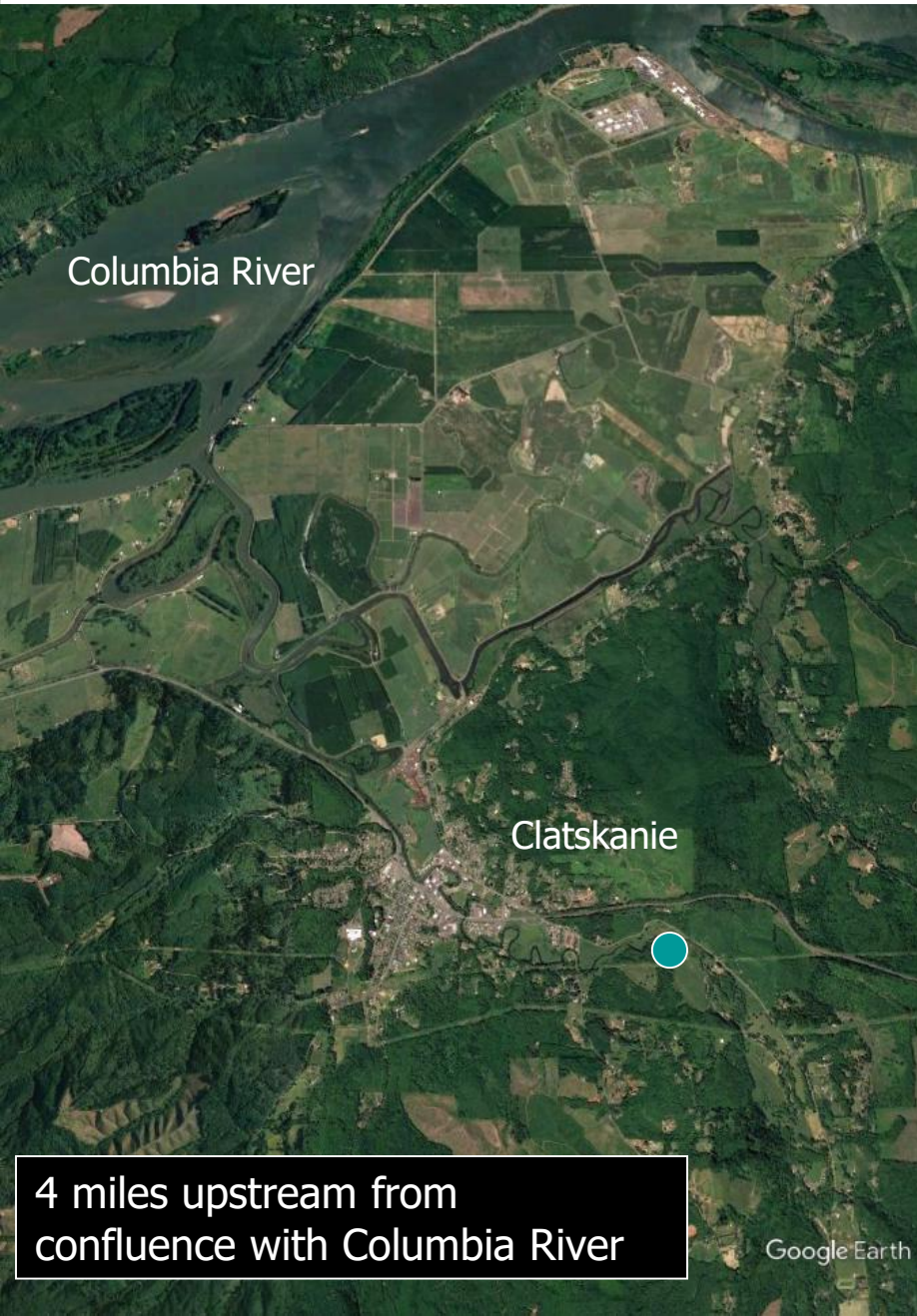
Portland

Image Landsat / Copernicus

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

Google Earth

Clatskanie River



Clatskanie River (Trap Operation)

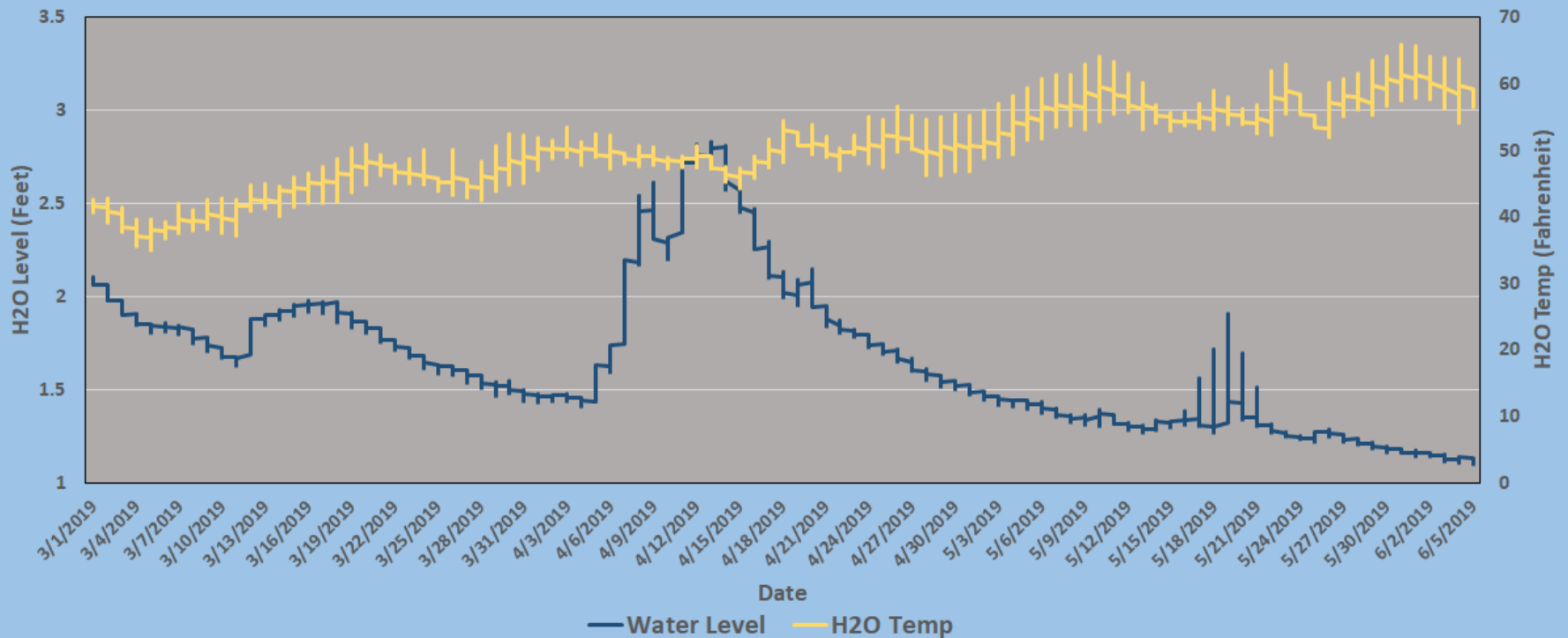


Trap Operation (February 25 – June 9)

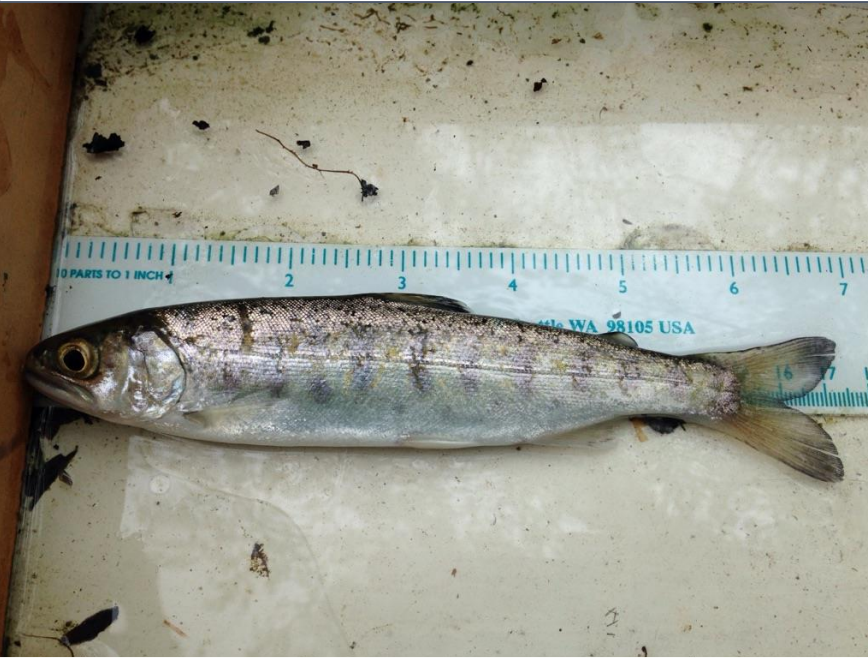
Continuous: 99 days

Partial: 4 days

Pulled: 0 days

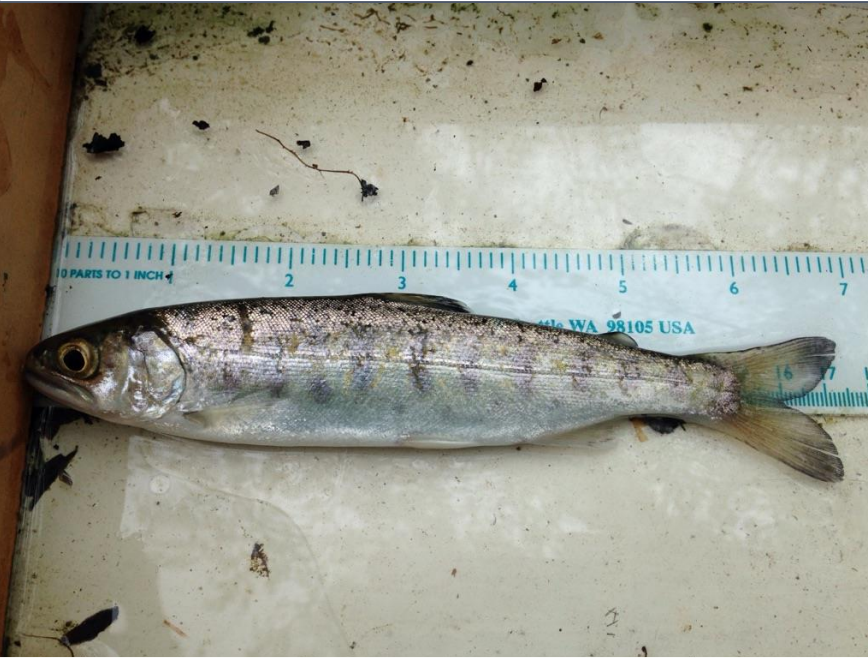


Clatskanie River (Total Catch)



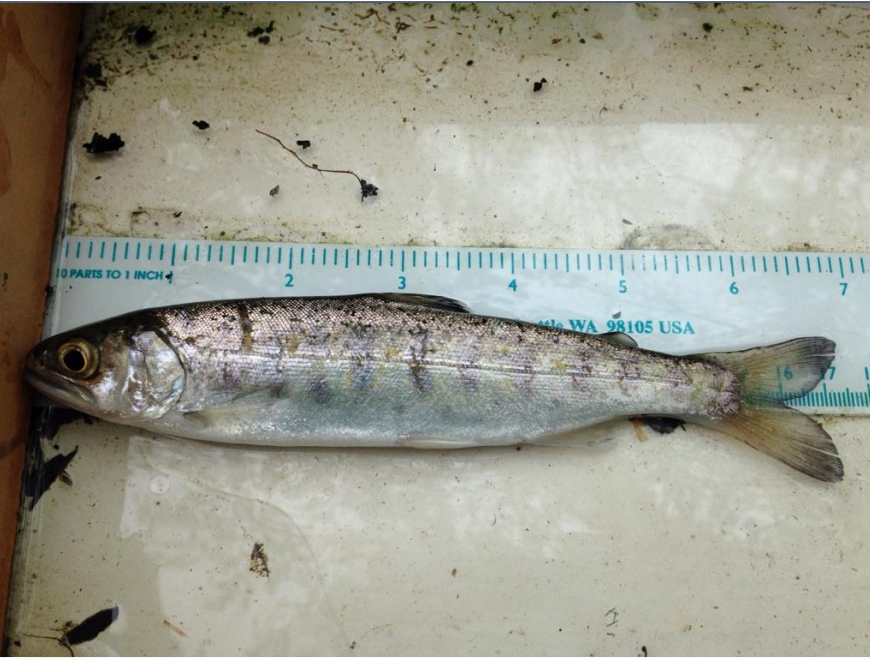
Species	Total Catch	Eff. (%)
Coho Fry	34	0.0%
Trout Fry	9	
Chum Fry	0	
Steelhead (90-119)	27	14.8%
Steelhead (60-89)	0	
Cutthroat (≥ 250)	36	
Cutthroat (90-119)	26	18.2%
Cutthroat (60-89)	3	33.3%

Clatskanie River (Total Catch)



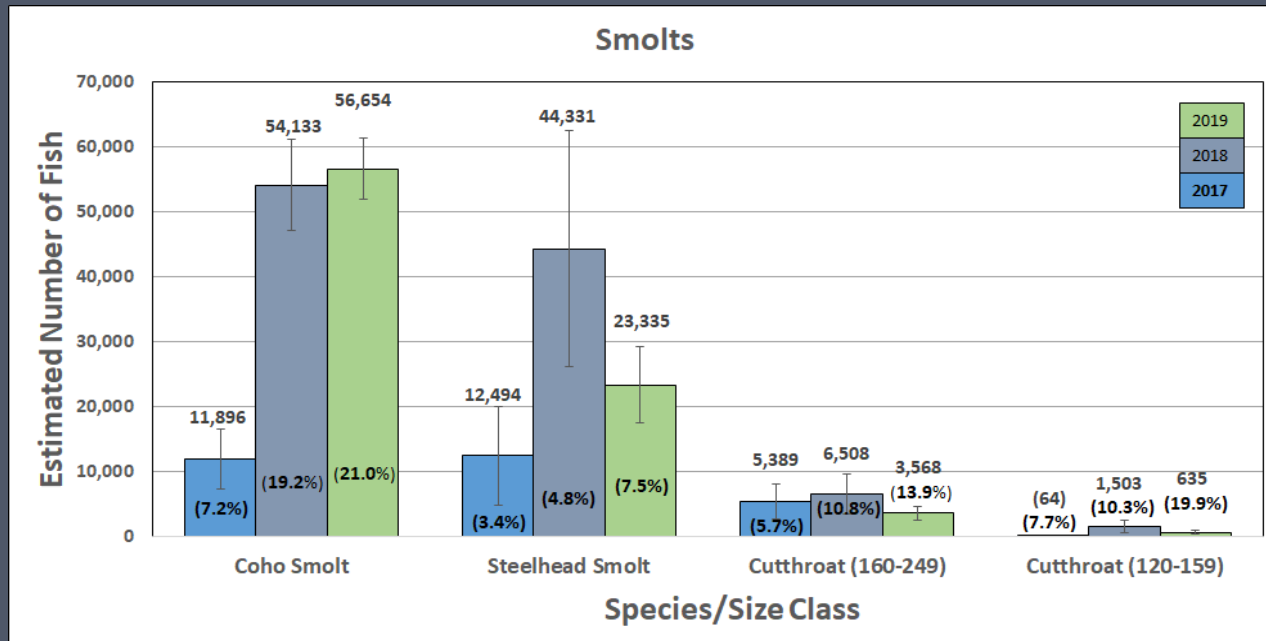
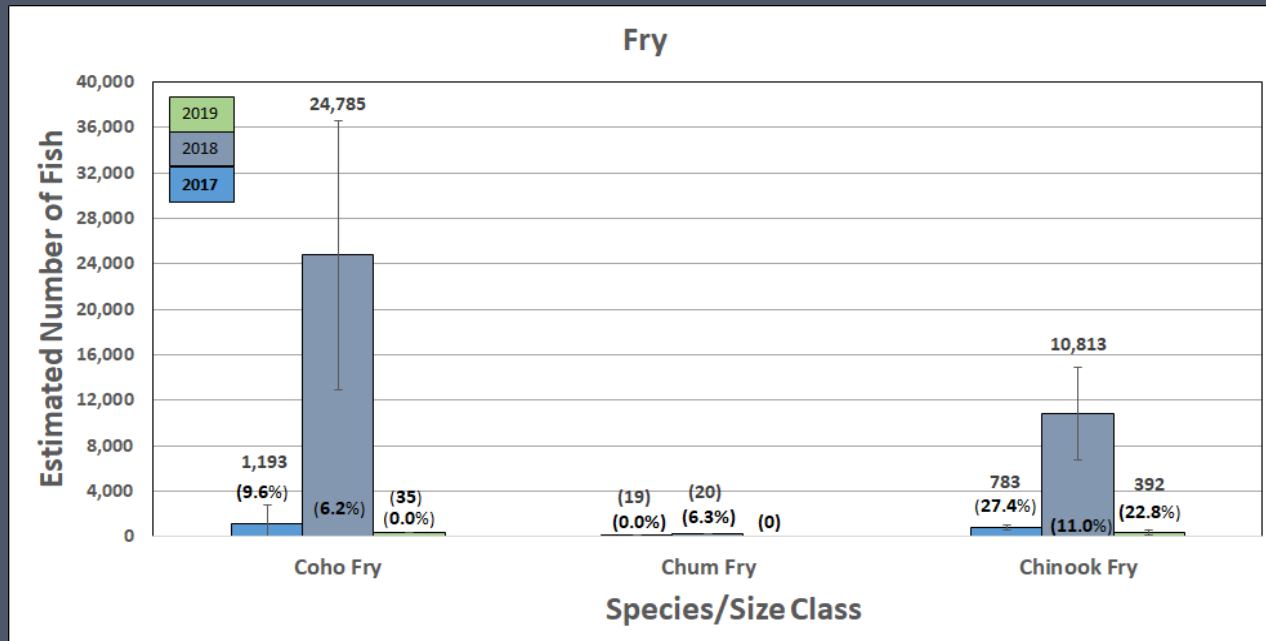
Species	Total Catch	Eff. (%)
Coho Smolts	11,431	21.0%
Coho Fry	34	0.0%
Trout Fry	9	
Chum Fry	0	
Chinook All	83	22.8%
Steelhead (≥120)	1,694	7.5%
Steelhead (90-119)	27	14.8%
Steelhead (60-89)	0	
Cutthroat (≥250)	36	
Cutthroat (160-249)	463	13.9%
Cutthroat (120-159)	115	19.9%
Cutthroat (90-119)	26	18.2%
Cutthroat (60-89)	3	33.3%

Clatskanie River (Abundance Estimates)

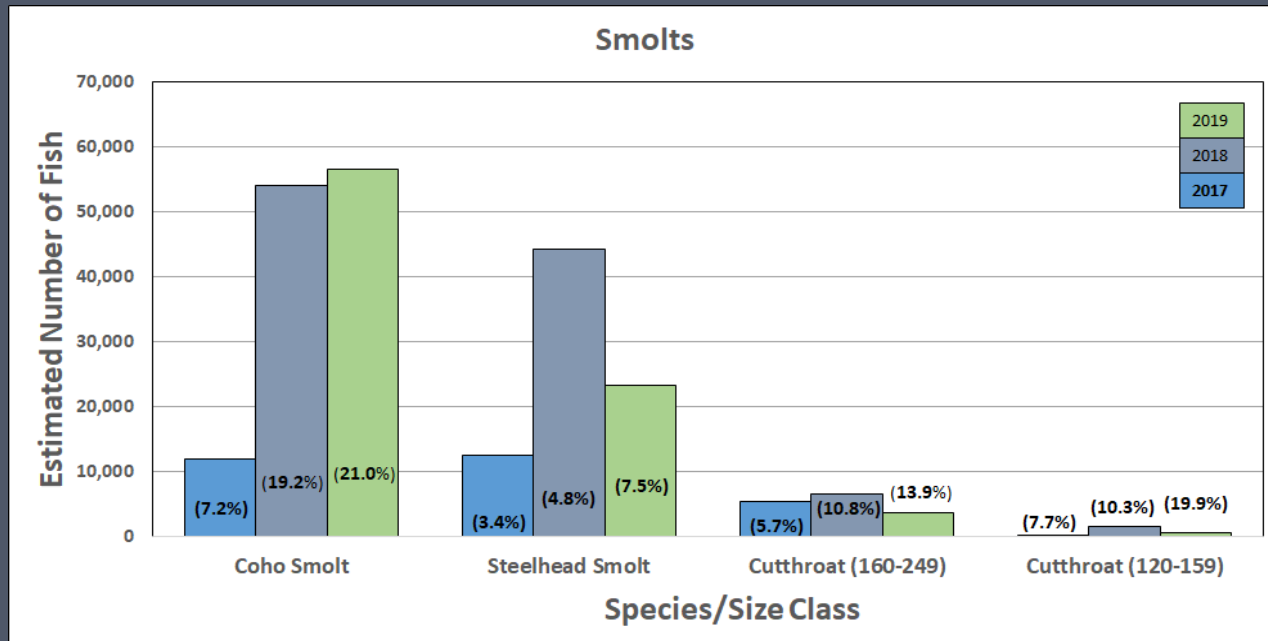
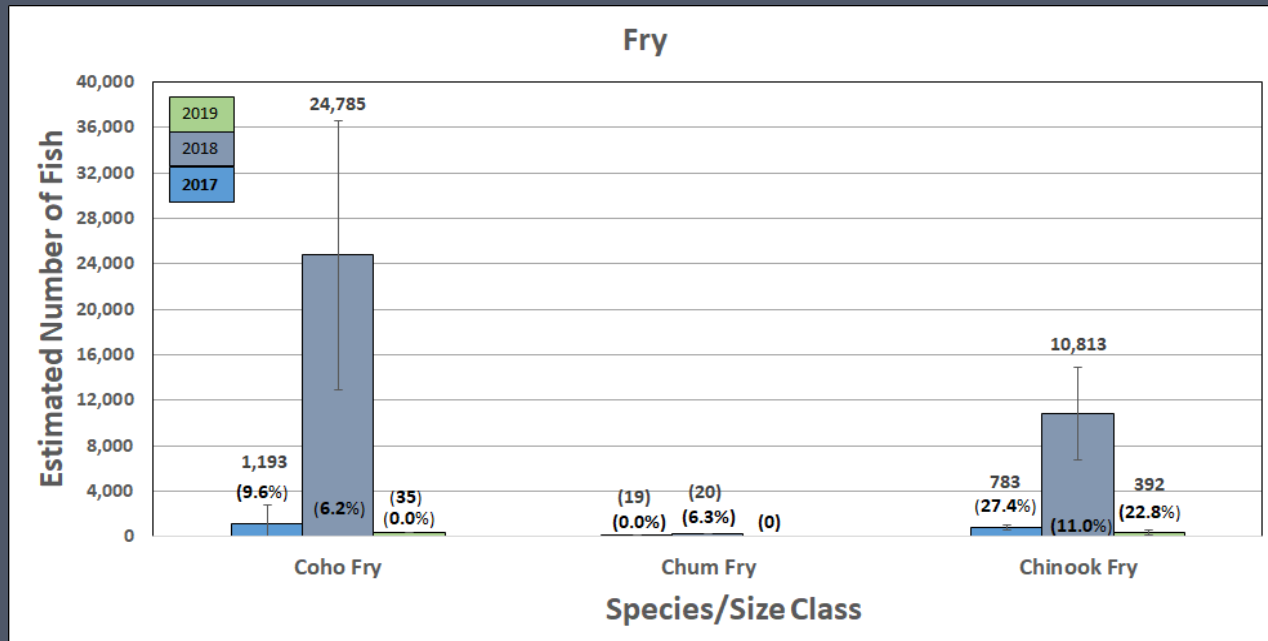


Species	Total Catch	Eff. (%)
Coho Smolts	56,654 ± 4,635	21.0%
Coho Fry	(35)	0.0%
Trout Fry	(9)	
Chum Fry	(0)	
Chinook All	392 ± 218	22.8%
Steelhead (≥120)	23,335 ± 5,868	7.5%
Steelhead (90-119)	(27)	14.8%
Steelhead (60-89)	(0)	
Cutthroat (≥250)	(40)	
Cutthroat (160-249)	3,568 ± 996	13.9%
Cutthroat (120-159)	635 ± 265	19.9%
Cutthroat (90-119)	(30)	18.2%
Cutthroat (60-89)	(3)	33.3%

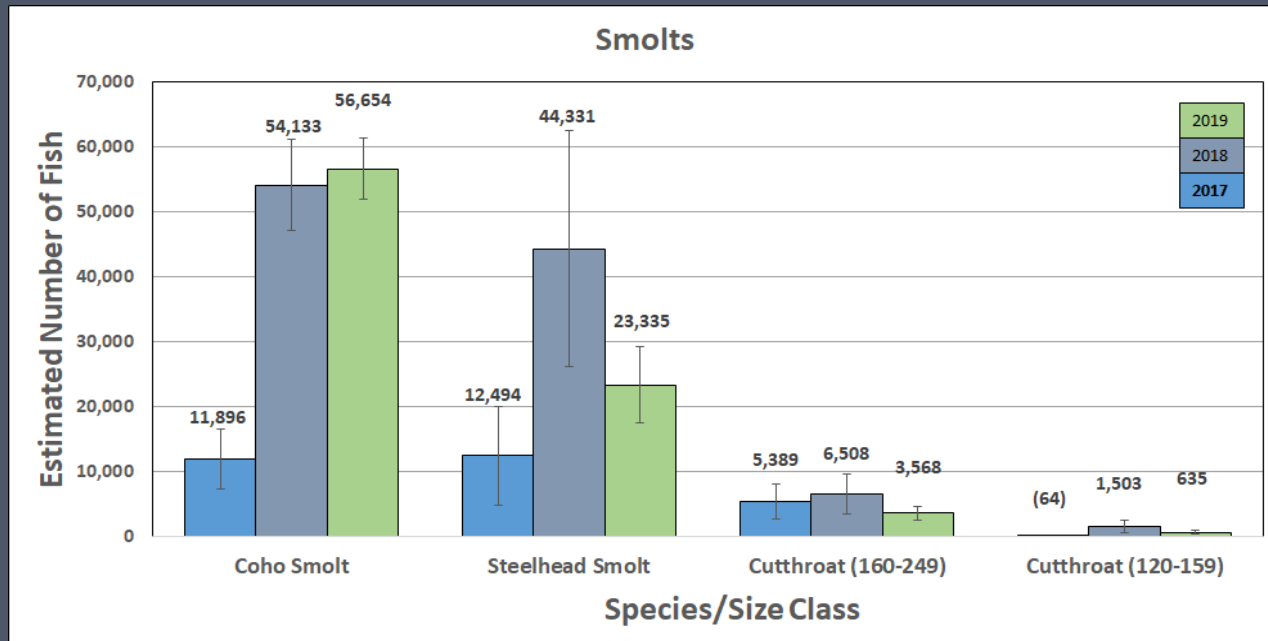
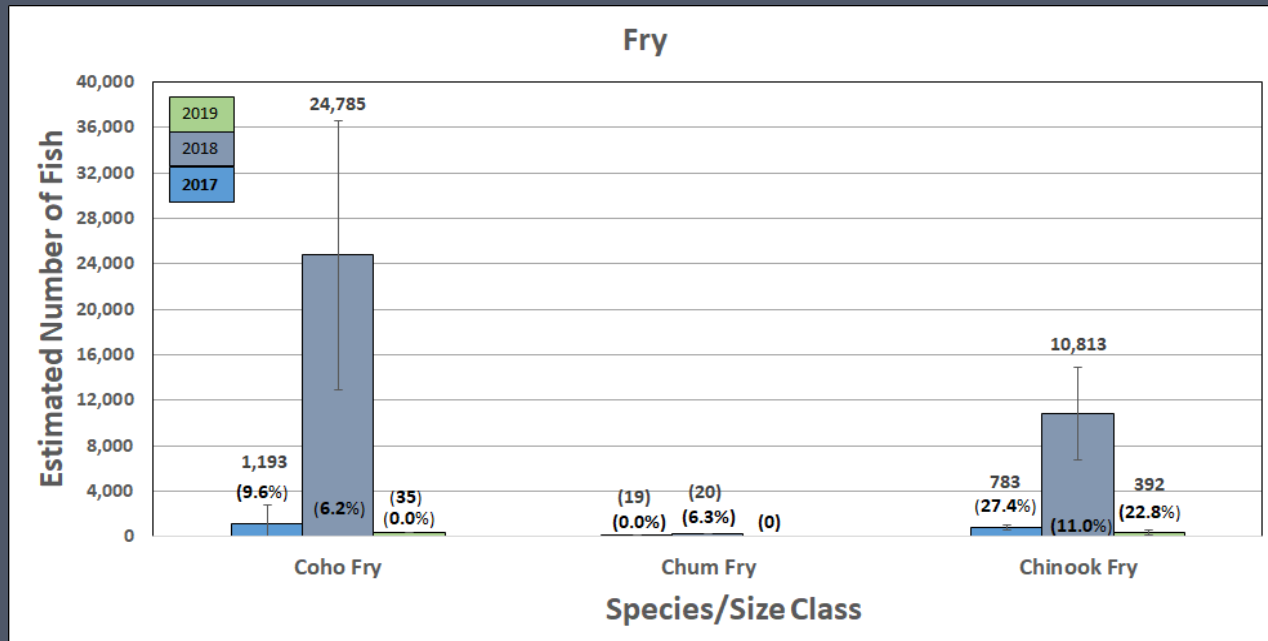
Clatskanie River (2017 - 2019 Comparison)



Clatskanie River (2017 - 2019 Comparison)



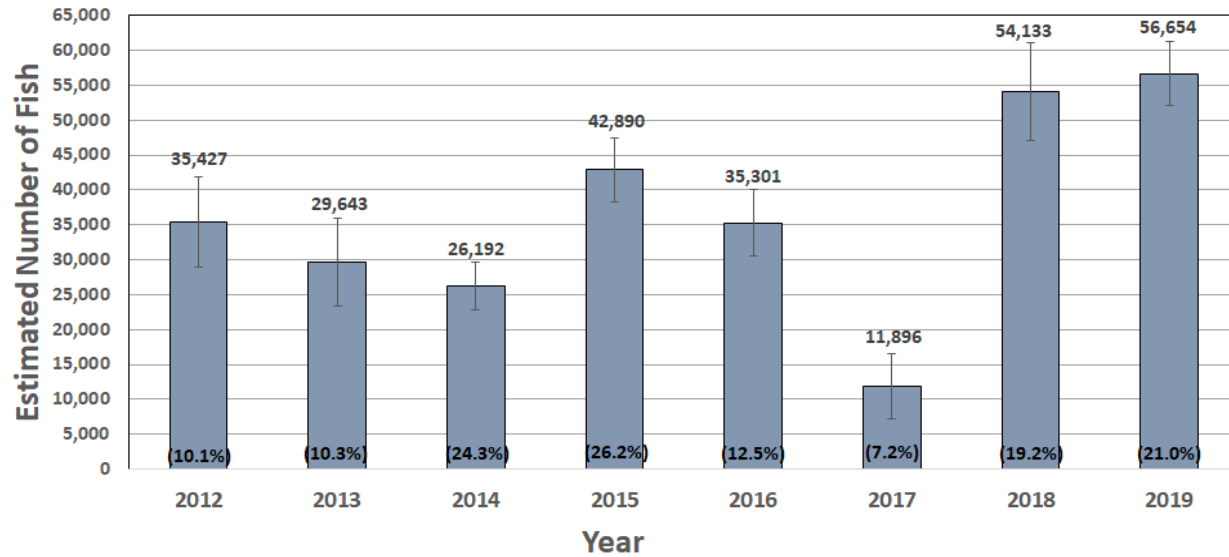
Clatskanie River (2017 - 2019 Comparison)



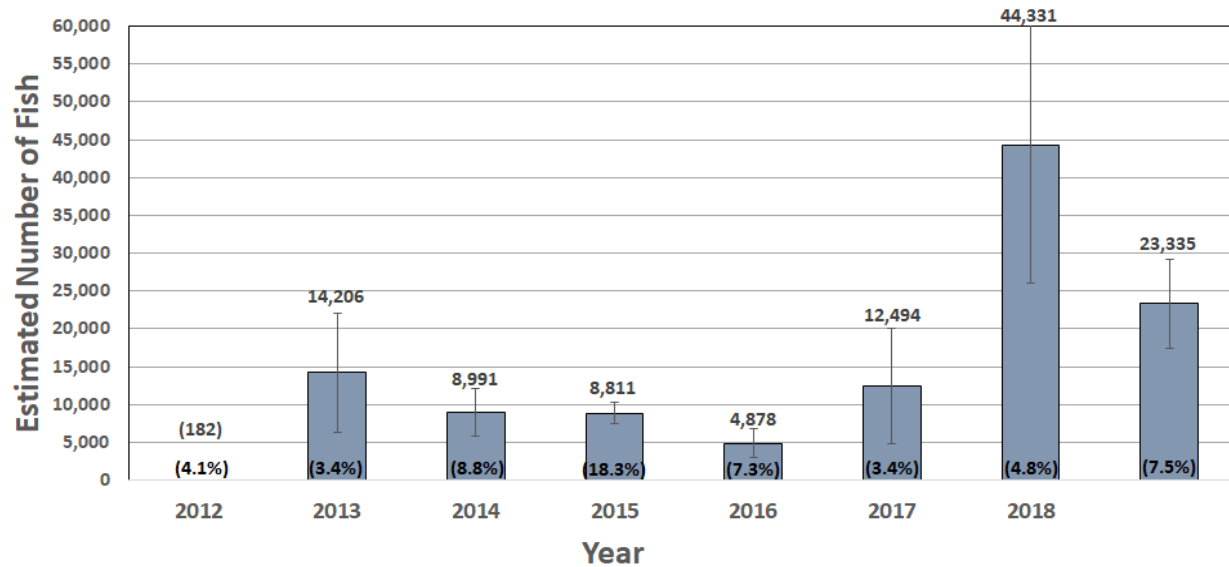
Clatskanie River (Annual Comparison)



Coho Smolts



Steelhead Smolts



Clatskanie River (Other Species)



Species	Catch
Stickleback	899
Cottid	860
Peamouth	715
Lamprey Larva	490
Brook Lamprey Adult	460
Pac Lamprey Adult	106
Redside Shiner	65
Largescale Sucker	44
Banded Killifish	22
Northern Pikeminnow	15
Pac Lamprey Juvenile	4
Longnose Dace	4
Common Goldfish	3
Goby	2
American Bullfrog	1

Acknowledgements

Funding

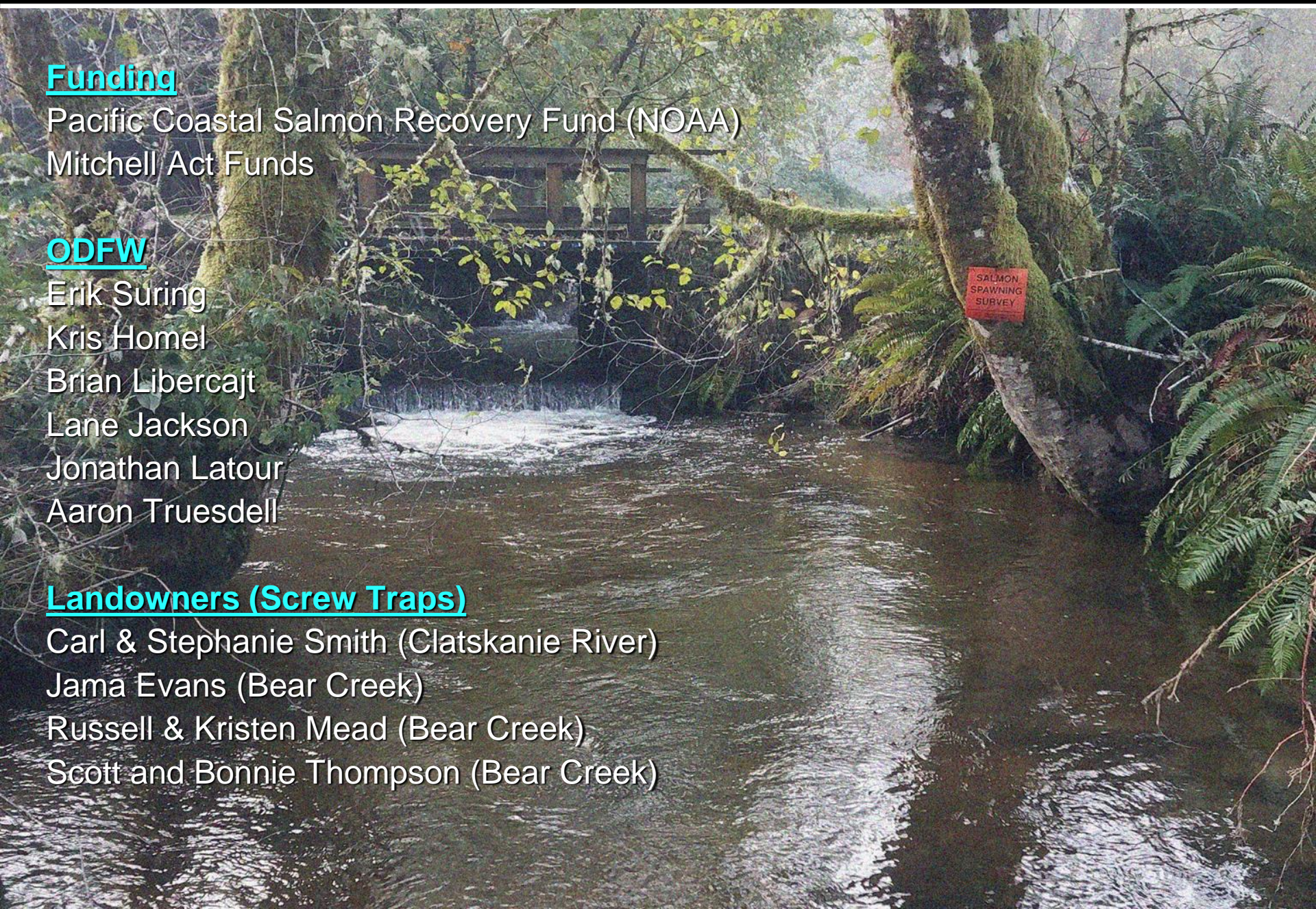
Pacific Coastal Salmon Recovery Fund (NOAA)
Mitchell Act Funds

ODFW

Erik Suring
Kris Homel
Brian Libercajt
Lane Jackson
Jonathan Latour
Aaron Truesdell

Landowners (Screw Traps)

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



Questions?

We just need a few hundred more of these!



I love screw traps....so much food!



Biggest Sculpin for the Season Winner – Jonathan Latour



Stupid spring tide (again)!

