

# Lower Deschutes River Fish Population Status Update

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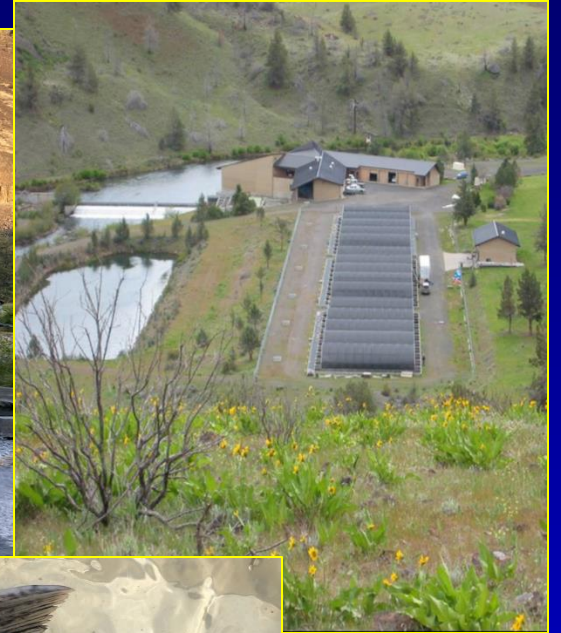


# Updates

- Steelhead
  - Fishery
- Spring and Fall Chinook
- Coho
- Redband Trout Density Estimates
- Smallmouth Bass Monitoring

# Steelhead, Coho, and Fall Chinook Sites/Methods

- Mark-Recapture
  - Warm Springs National Fish Hatchery (WSNFH)
  - Pelton Trap
- Sherars Falls
- Trap Counts
  - Warm Springs National Fish Hatchery (WSNFH)
  - Pelton Trap
- Carcass surveys, tag returns

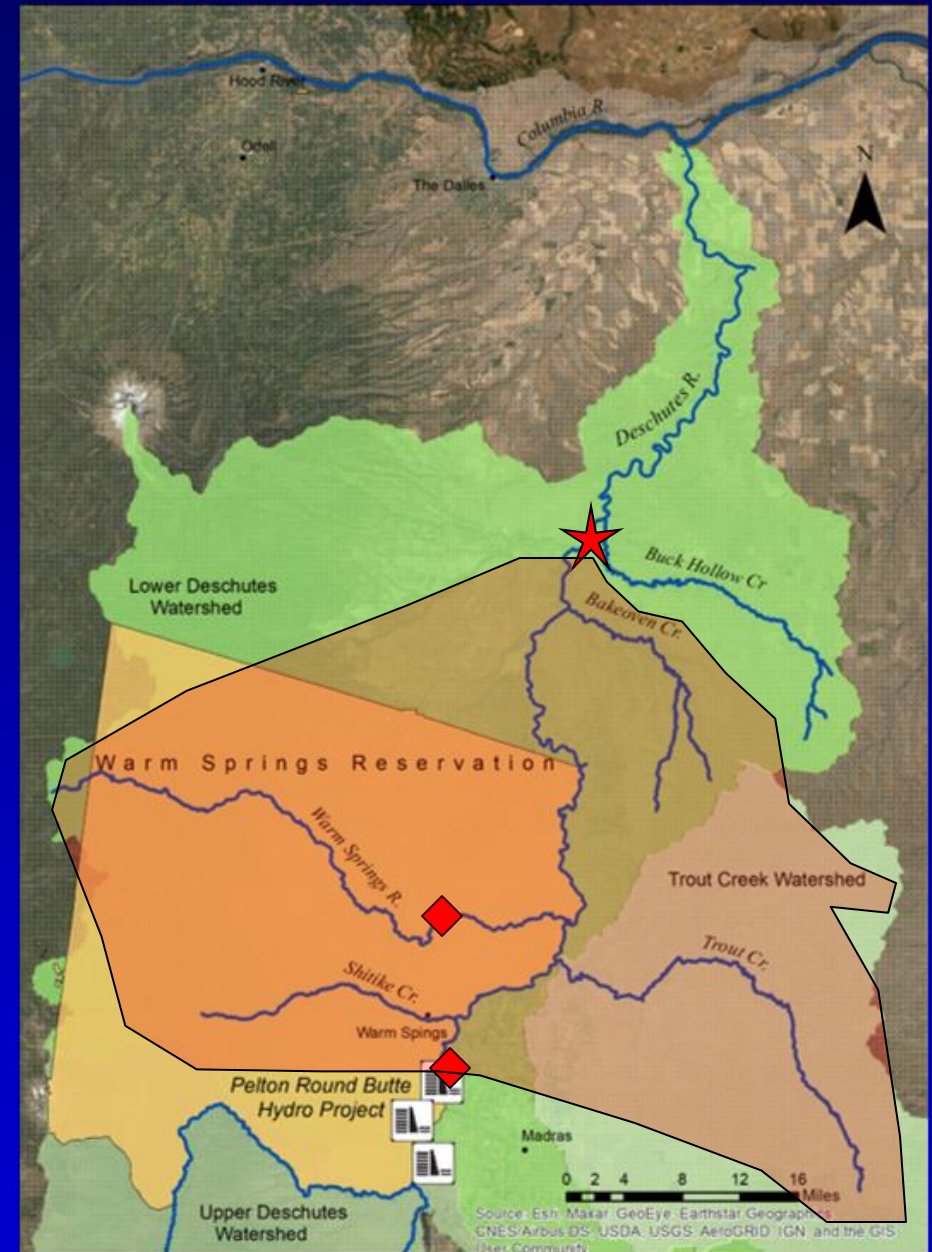


# Steelhead Run Estimates

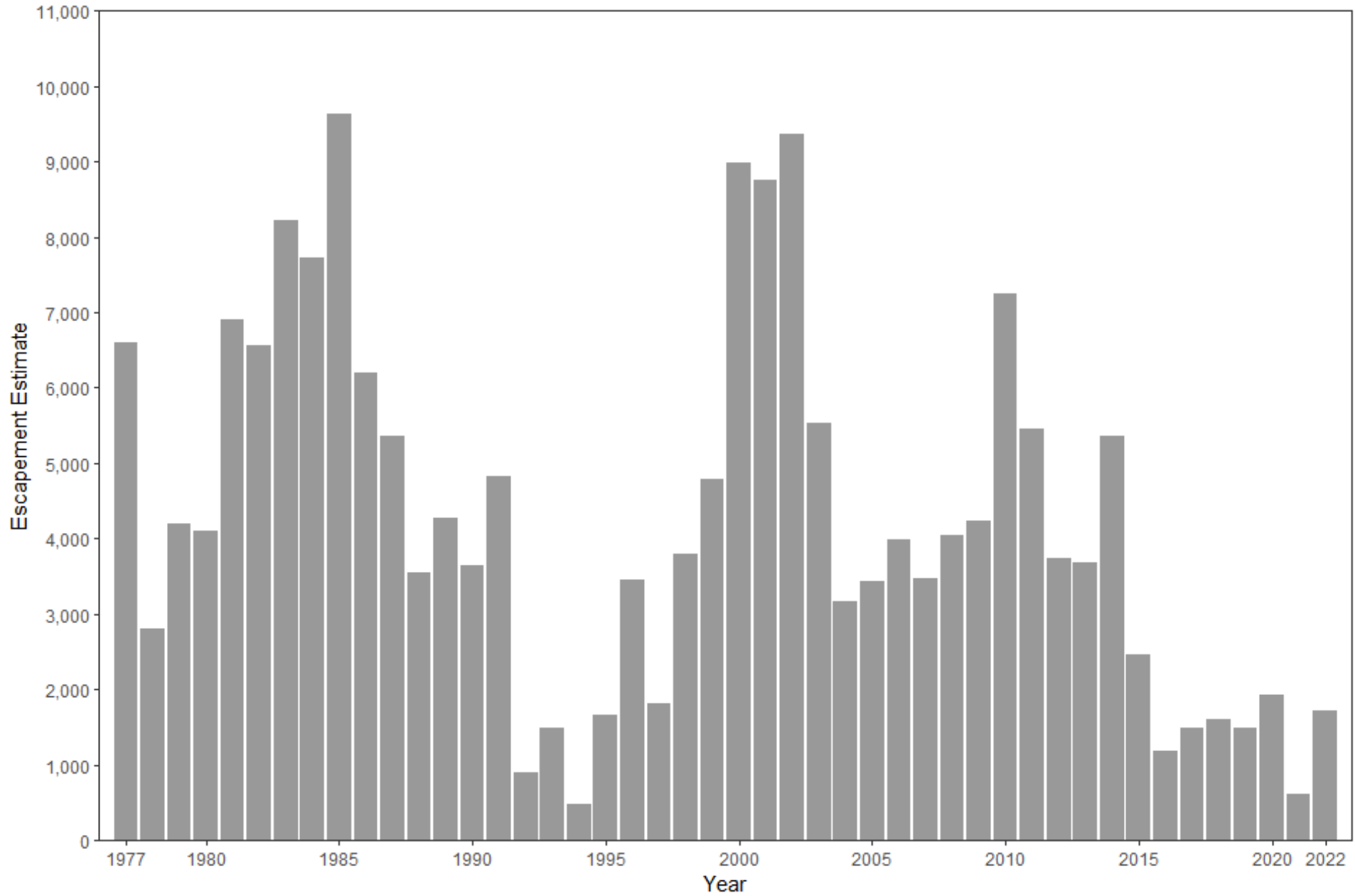
## Mark-Recapture

- Sherars Trap
- Pelton Trap
- Warm Springs National Fish Hatchery
- Out-of-basin Tag Returns and PIT tag detections

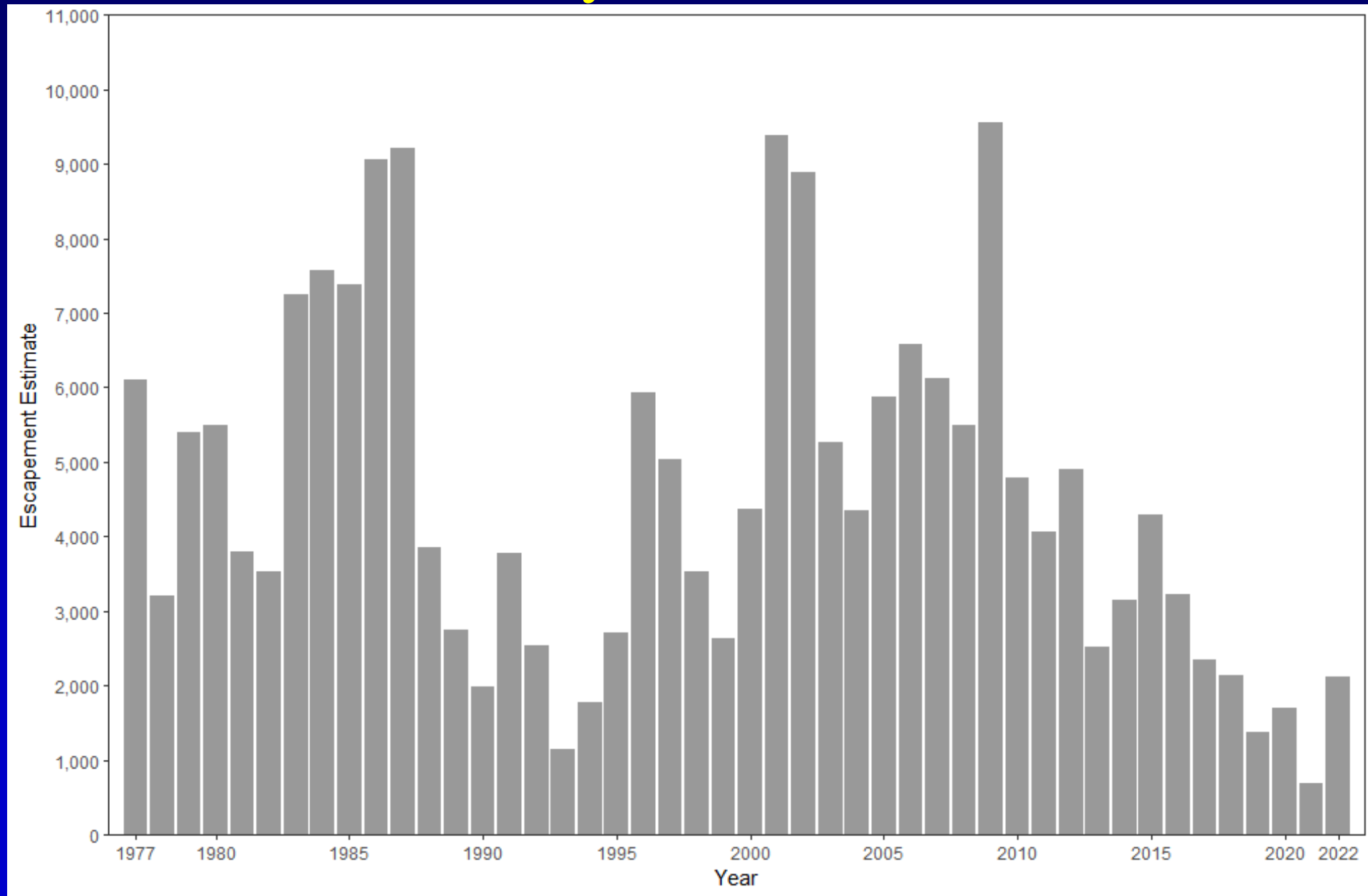
*Run estimates for Above Sherars Falls*



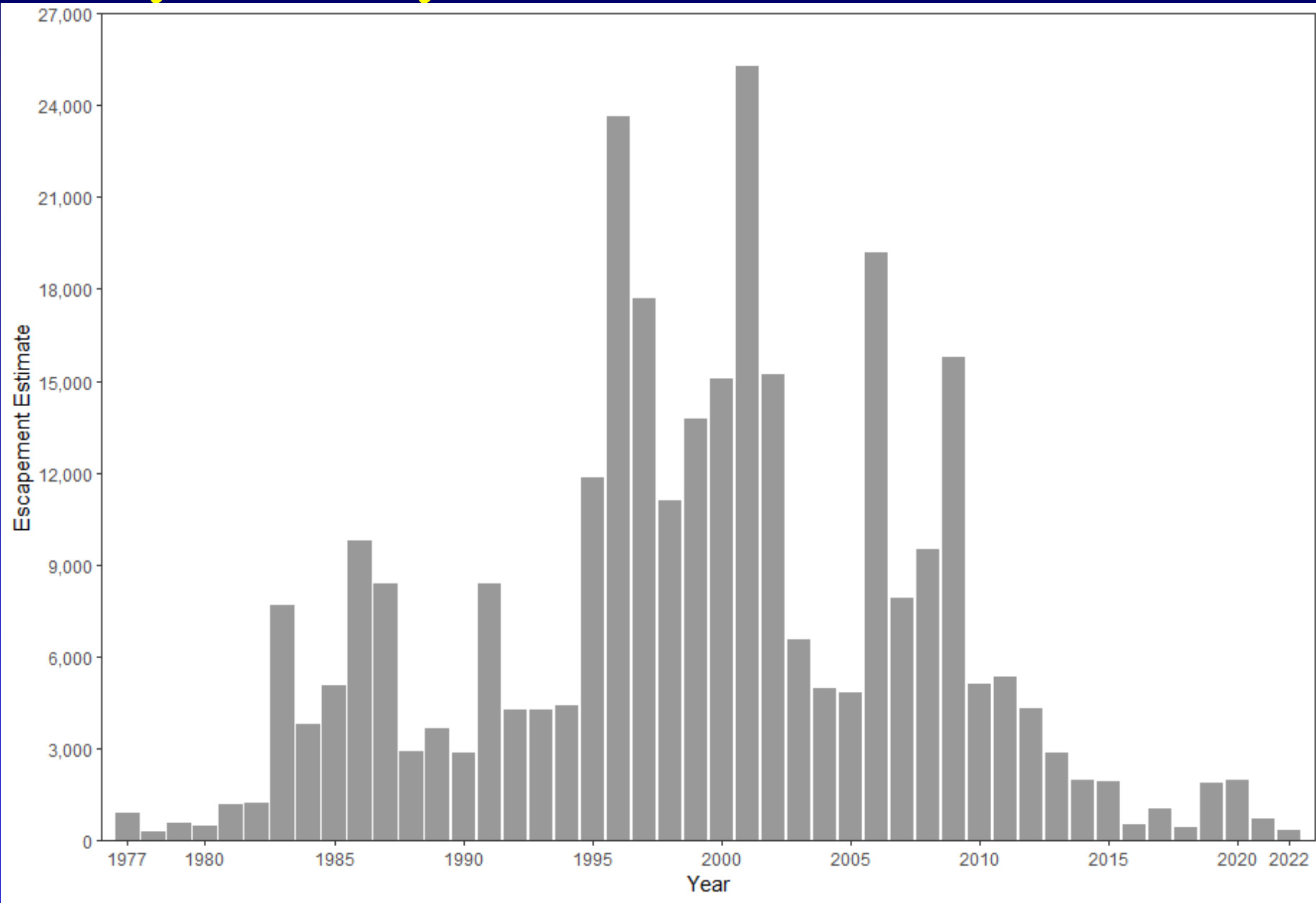
# Wild Steelhead Above Sherars



# Round Butte Hatchery Steelhead Above Sherars Falls



# Stray Hatchery Steelhead Above Sherars Falls



# Coho Run Estimates

## Mark-Recapture

- Sherars Trap
- Pelton Trap
- Warm Springs National Fish Hatchery



*Run estimates for Above Sherars Falls*



# Coho Above Sherars Falls

Run Year	Wild Escapement Estimate (Adults + Jacks)	95% CI
2019	1,541	±263
2020	3,381	±812
2021	2,352	±474
2022	2,392	±298

# Fall Chinook Run Estimates

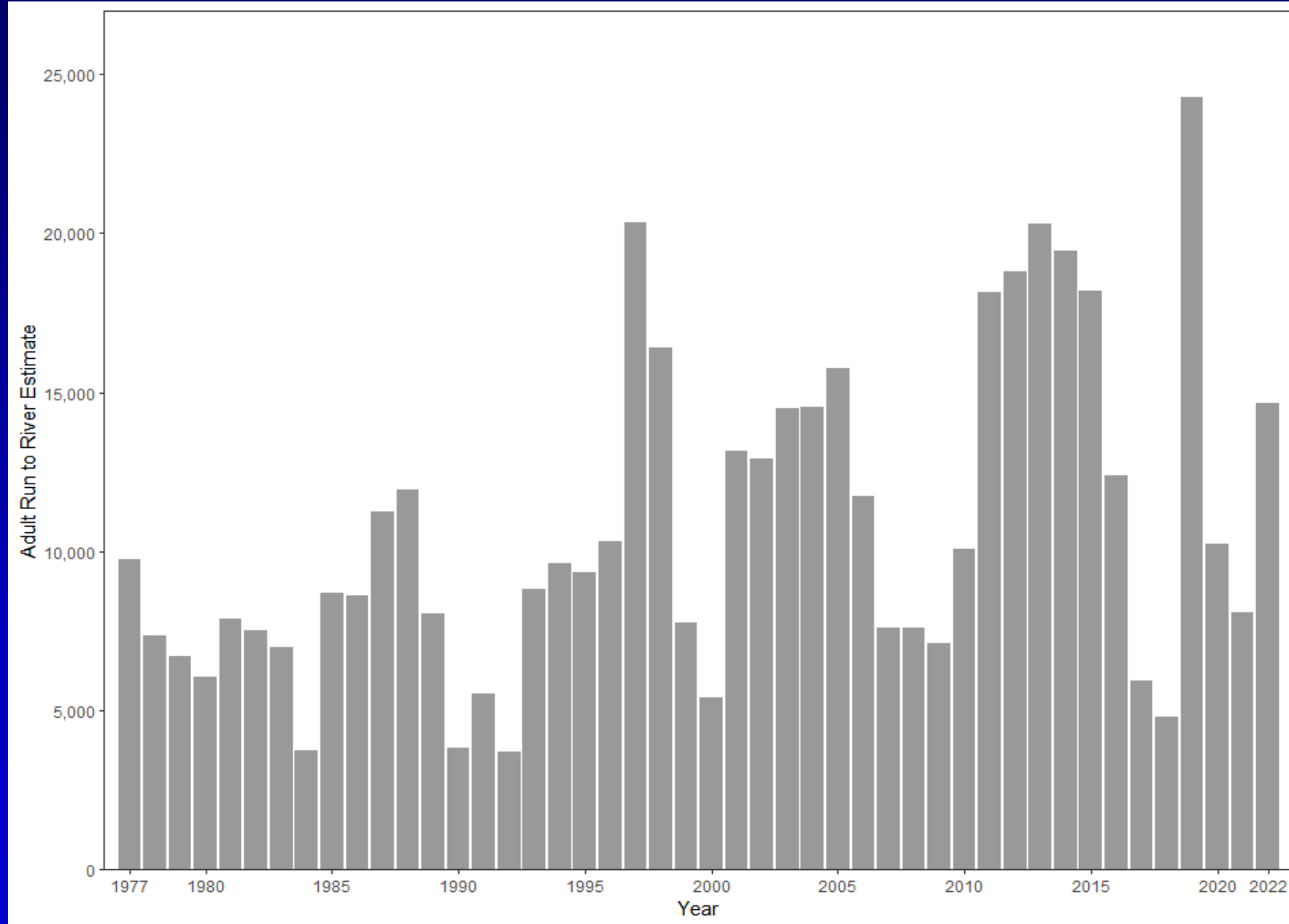
## Mark-Recapture

- Sherars Trap
- Pelton Trap
- WSNFH
  
- Carcass surveys
- Creel surveys
- Redd Flights
- Scale Reads



*All River Run Reconstruction*

# Wild Fall Chinook All River Run Reconstruction Estimates

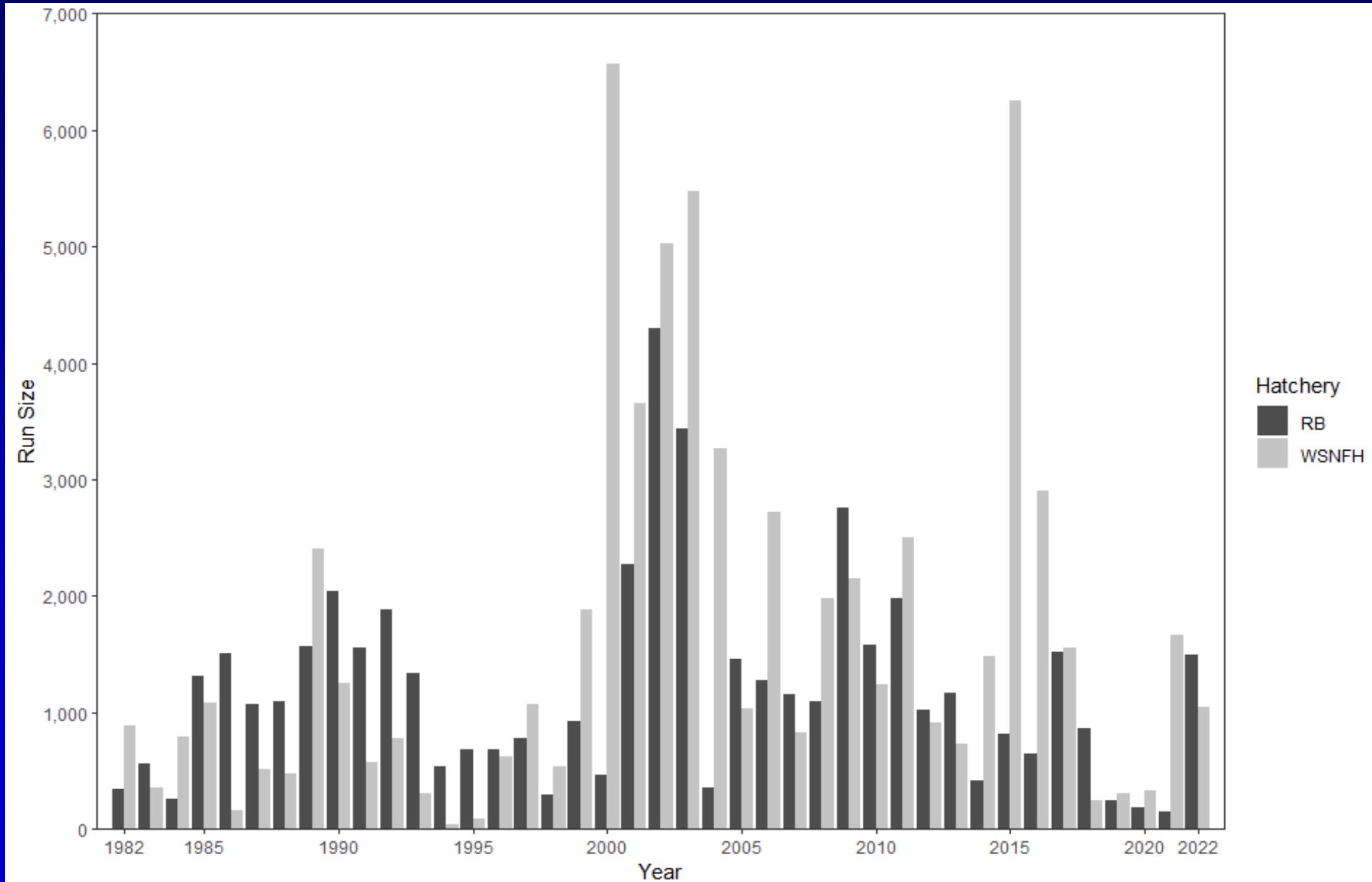


# Spring Chinook Run Estimates

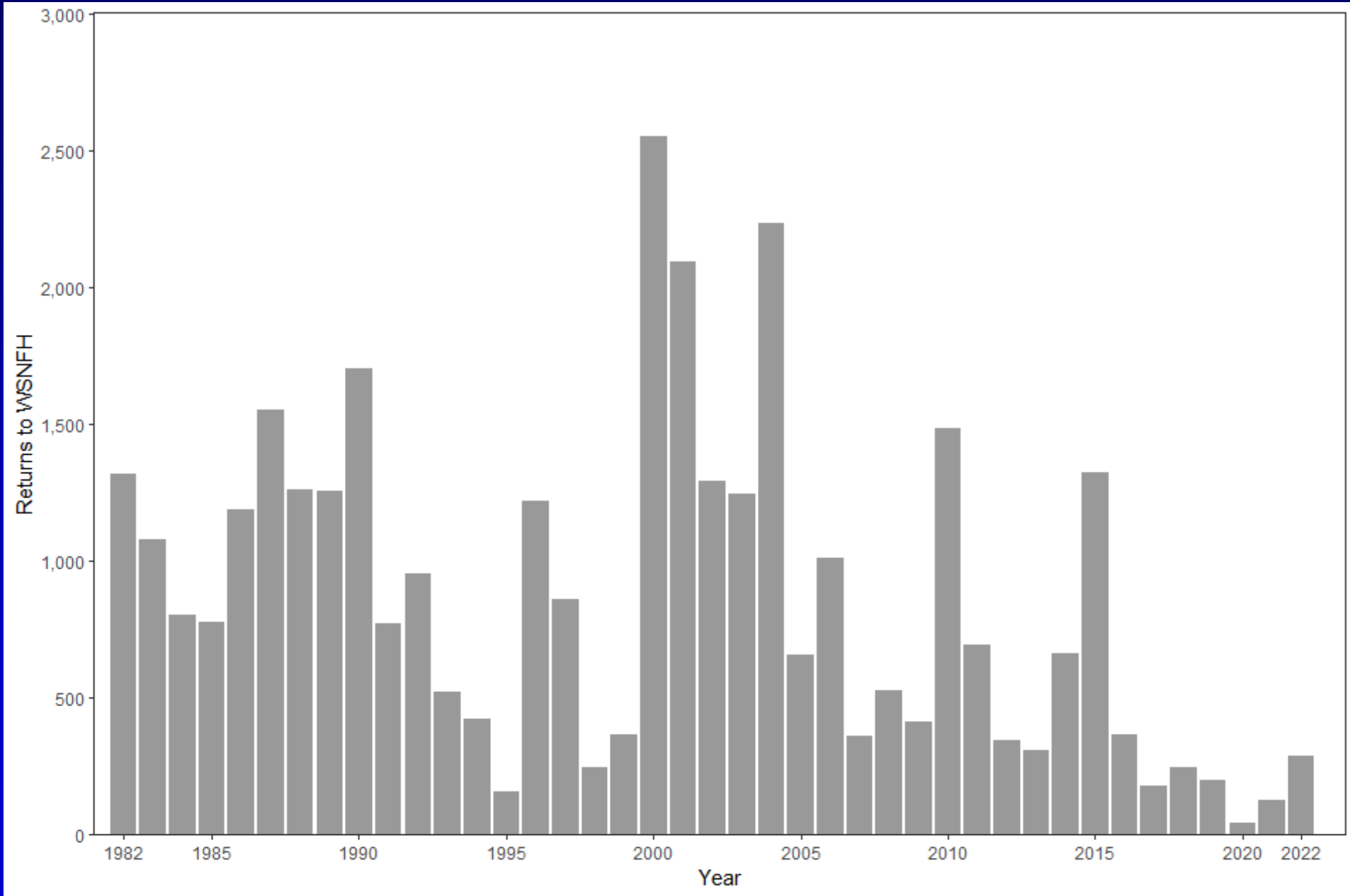
- Not associated with Sherars Trap
- Wild Run Size Enumerated at Warm Springs National Fish Hatchery
- Hatchery Production at Round Butte Hatchery (ODFW) and Warm Springs National Fish Hatchery (USFWS)



# Adult Hatchery Spring Chinook Returns



# Wild Spring Chinook Returns to WSNFH



# Deschutes Trout Monitoring

## Previously Reported:

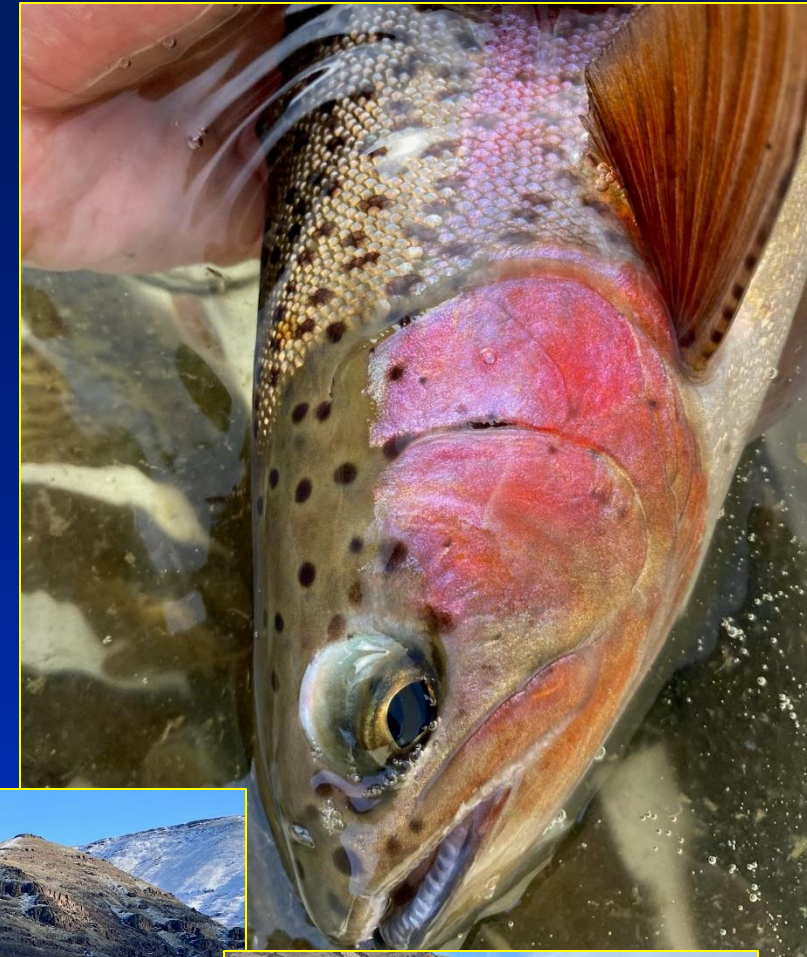
- Growth
- Age structure
- Food consumption
- Condition
- Disease



# Deschutes Trout Monitoring

2019 to 2023: Continued previous studies since 2014

- Conducted Population & Growth Estimates
  - Nena Creek 2019, 2020
  - North Junction and Jones Canyon 2021, 2022
- Growth Estimates
  - Trout Creek 2020
  - North Junction 2023



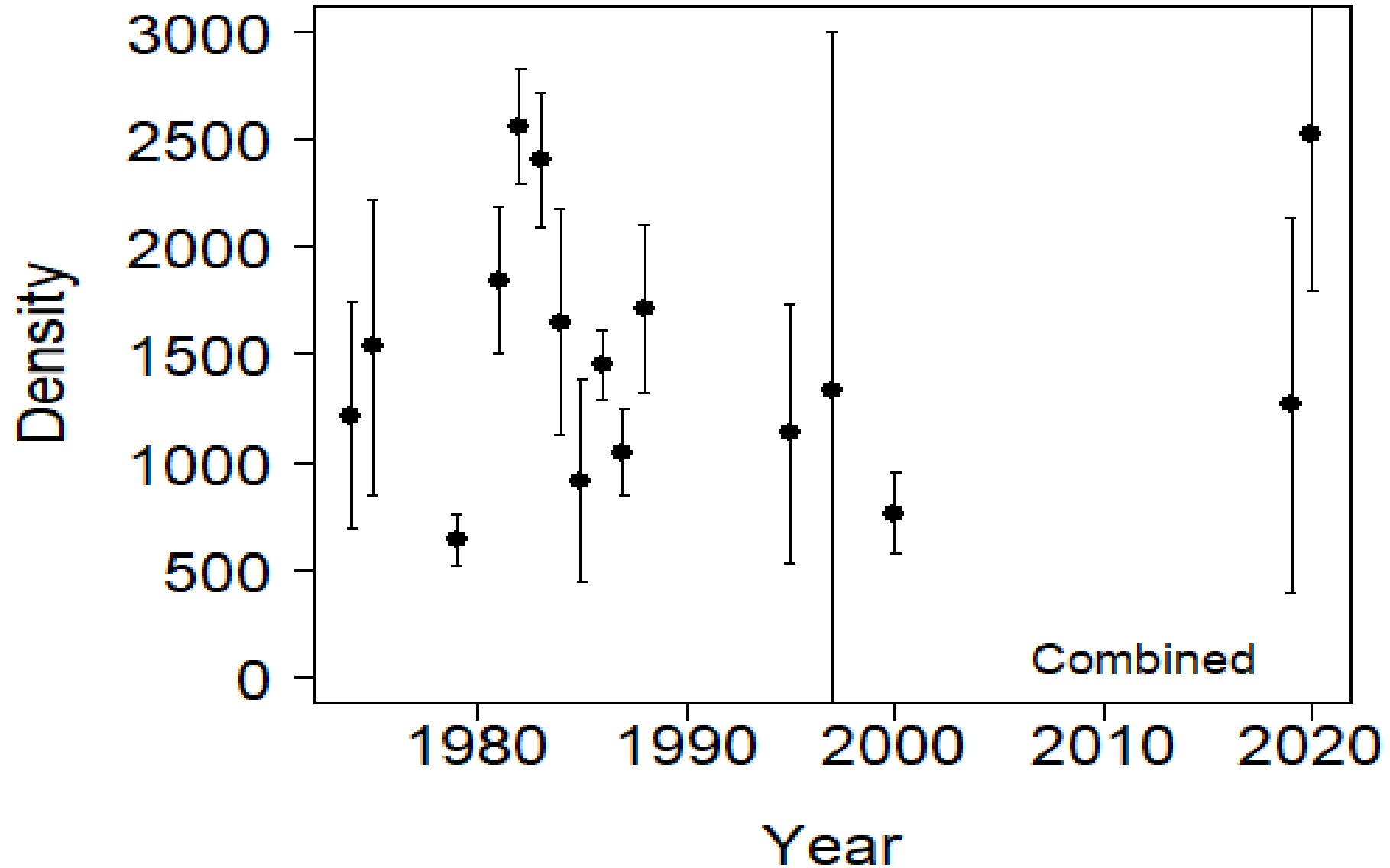


# Mark-Recapture Methods

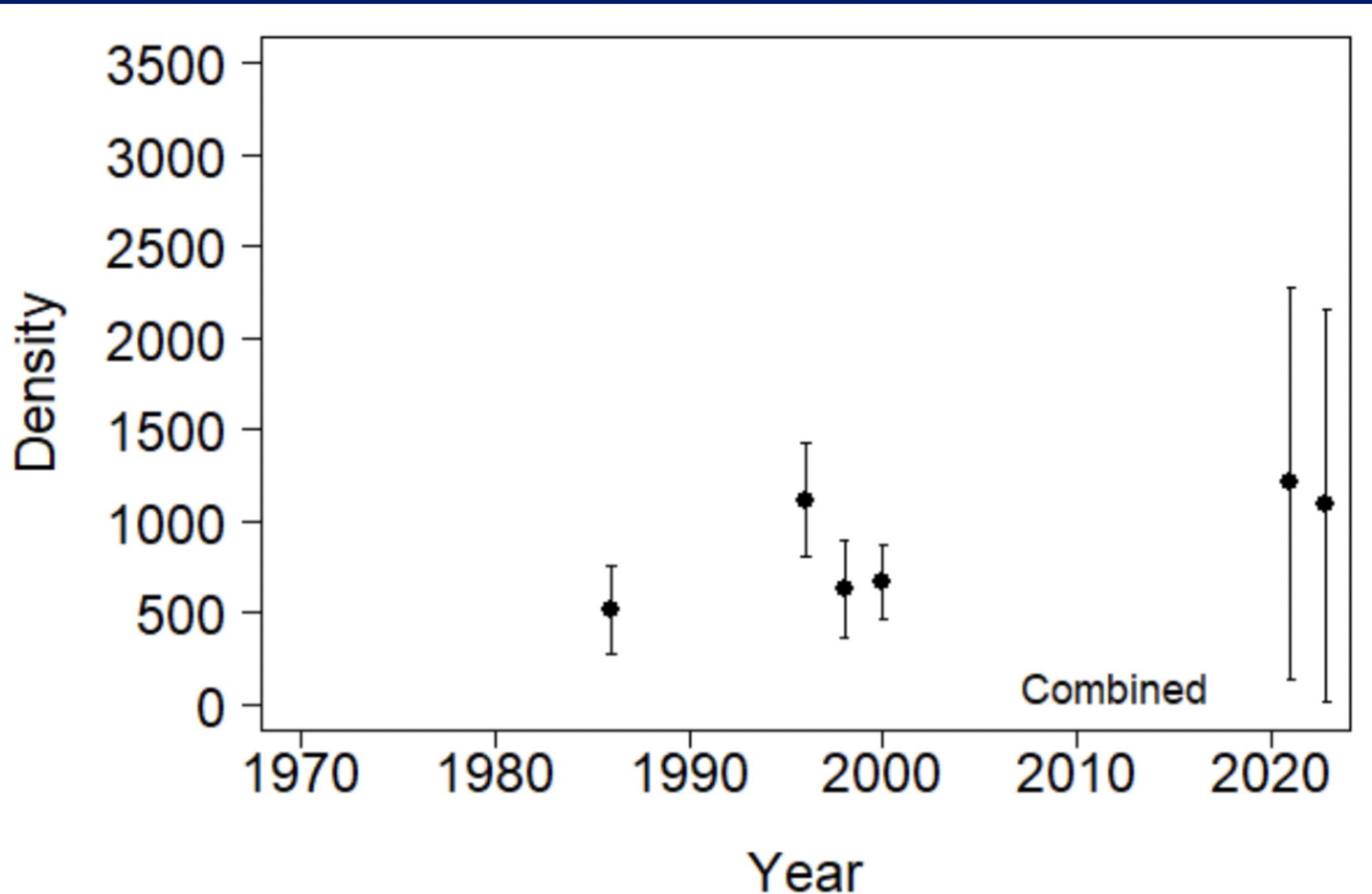
- Methods and Sections same as Historical (Schroeder and Smith 1989, Newton and Nelson 2000, Jones and Seals 2019)
- Multiple pass electrofishing
- Closed Population Models



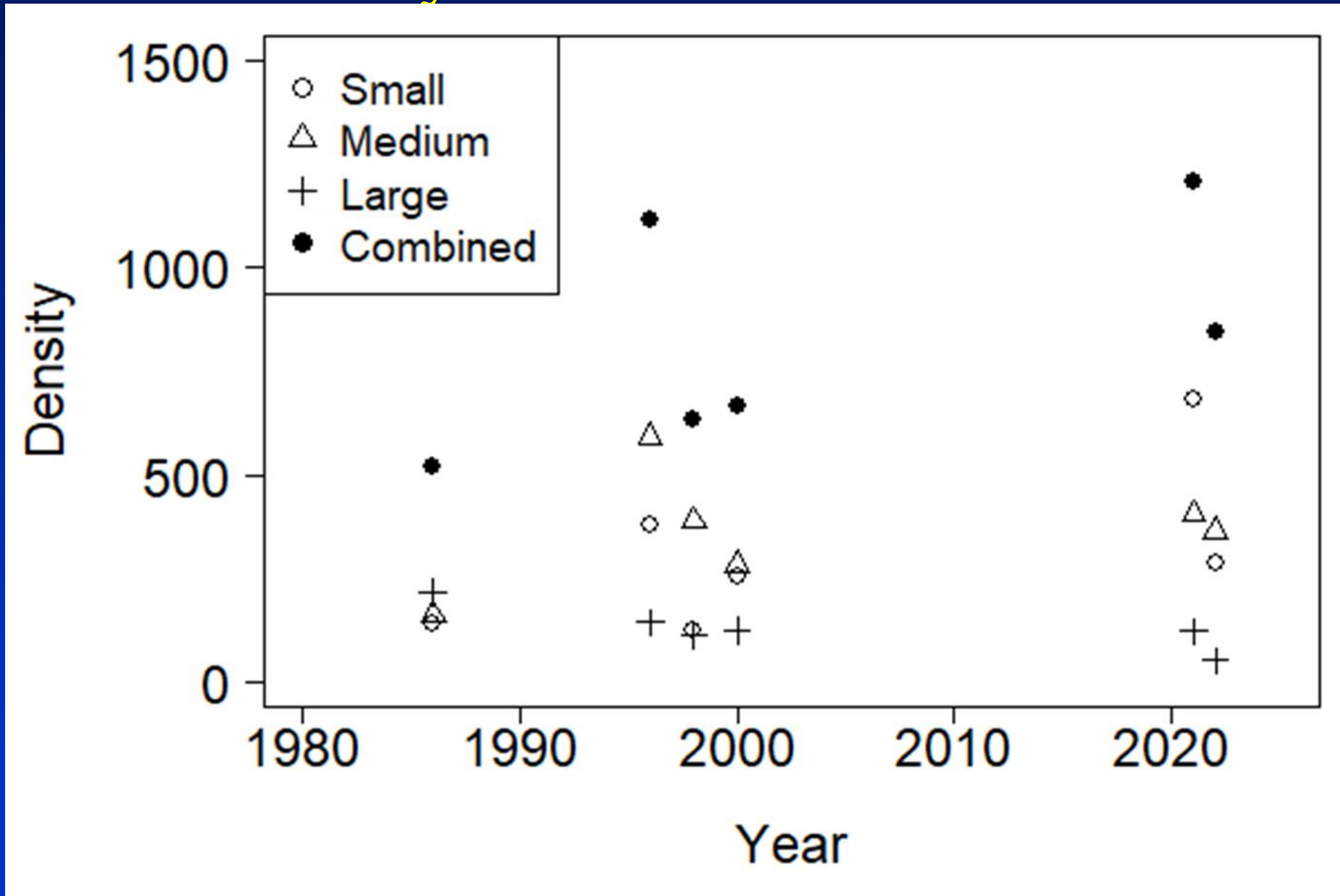
# Nena Creek Section Fish Per Mile



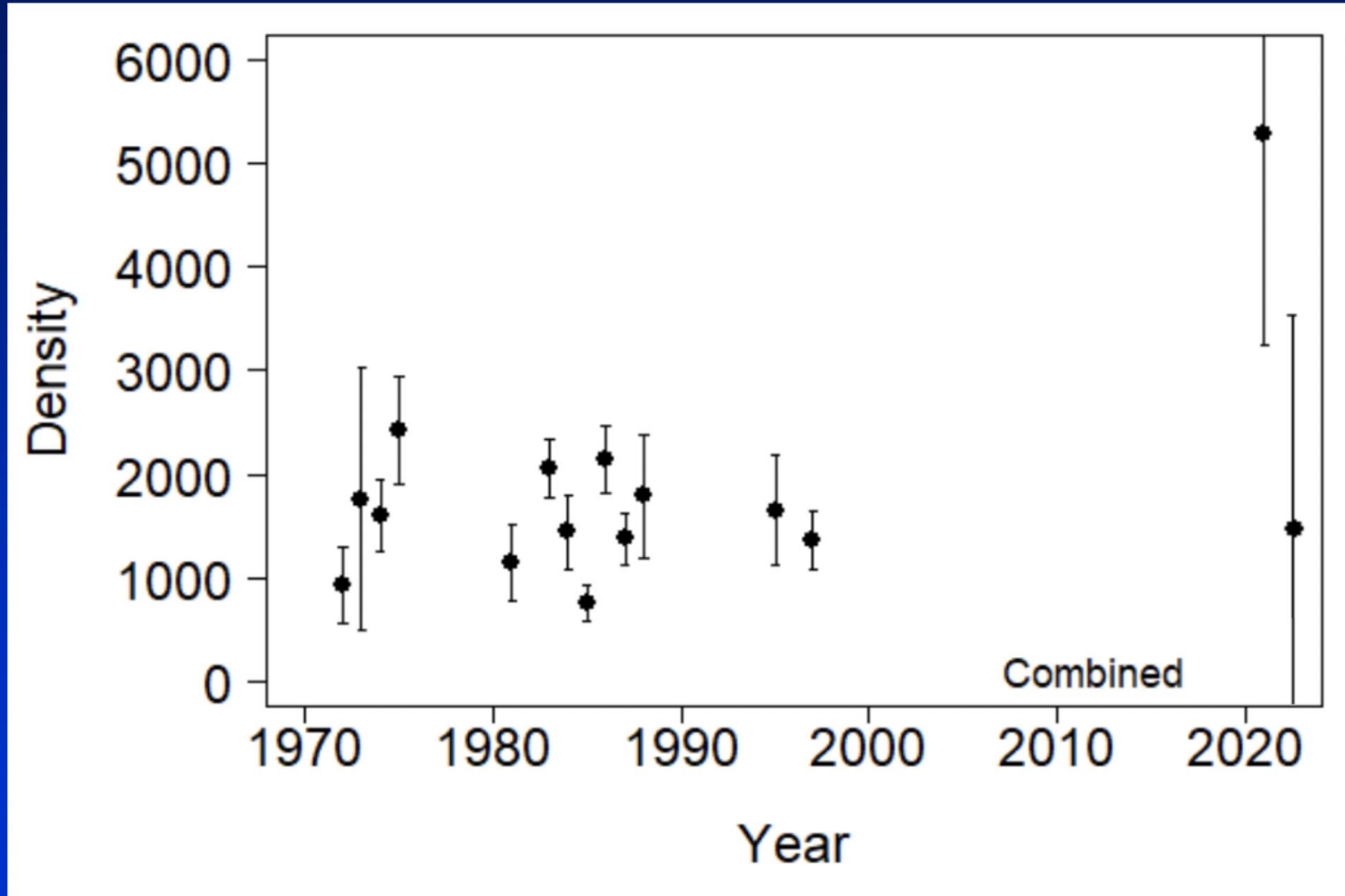
# Jones Canyon Section Fish Per Mile



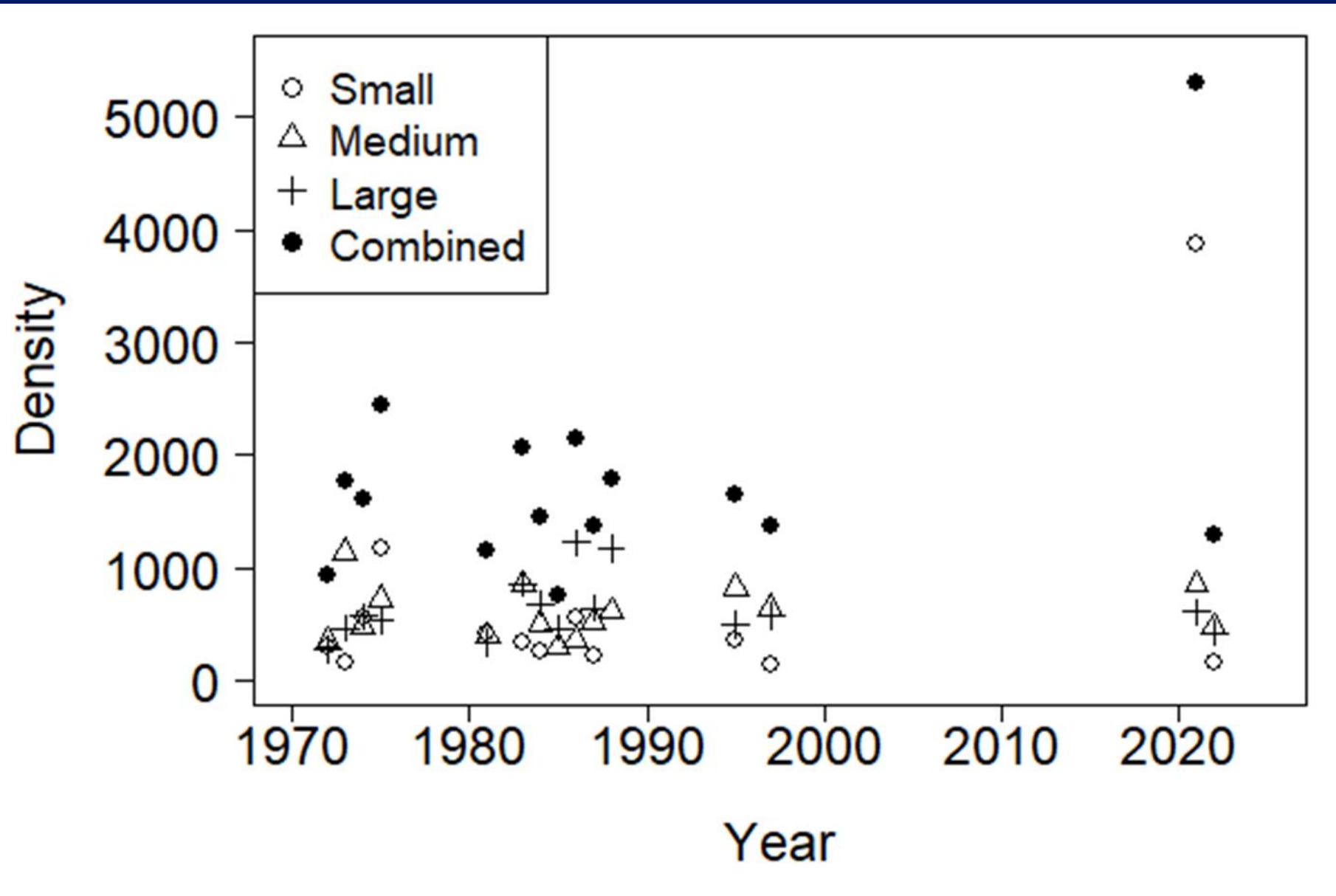
# Jones Canyon Section Fish Per Mile



# North Junction Section Fish Per Mile



# North Junction Section Fish Per Mile



# Smallmouth Bass



# Bass Background

- Before 2010 - Bass Regularly Reported
- 2010-2022 Snorkel and electrofishing surveys
- 2010-2015 surveys captured no bass
- Anglers report increasing smallmouth catch in 2016 and 2017
- Electrofishing Surveys confirmed increase





# Findings

- Distributed from Ferry Canyon (RM 26) to Mouth
- PIT tagged individual displaying long migration patterns
- Leaving the Deschutes in September
- Re-entering the Deschutes April-June
- No evidence of Natural Reproduction



# Status Summary – All Species

- Steelhead Returns are Low
- Coho Returns are Increasing
- Wild spring Chinook Returns are Critical
- Fall Chinook Returns are Robust
- Redband Trout Densities are Good
- Smallmouth Bass continue to Seasonally Occupy the lower 12 miles



# Status Summary – Steelhead Fishery

Steelhead angling and retention currently open under permanent rule

- Per Deschutes Steelhead Fishery Framework:
  - 9,900 Wild Steelhead Over Bonneville between July 1 – July 31
  - 23,100 Wild Steelhead Over Bonneville between July 1 – August 31
- Total forecast for Wild Steelhead over Bonneville:
  - 18,600

Summer Steelhead	Total Upriver Steelhead	99,700	123,871	67,800
(to Bonneville Dam)	Upriver Skamania Index (total)	3,100	6,902	4,400
	<i>(wild)</i>	1,600	2,979	2,100
	A-Index (total)	81,000	76,691	55,400
	<i>(wild)</i>	28,100	23,189	17,300
	B-Index (total)	15,600	40,278	8,000
	<i>(wild)</i>	1,900	6,737	1,300



Thanks to

U.S.F.W.S. Sport Fish Restoration

Confederated Tribes of the Warm Springs Natural Resources

Warm Springs National Fish Hatchery

Round Butte Fish Hatchery

Portland General Electric

ODFW Trap Operators & Creelers

ODFW Michelle Jones, Biometrician