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March 5, 2024

MEMORANDUM

TO: Council Members

FROM: Mark Fritsch

SUBJECT: Briefing on Columbia River Basin Salmon and Steelhead Returns for 2023 and Forecasts for 2024

BACKGROUND:

Presenter: Dr. Charlene Hurst (Columbia River Management Unit Lead Fish Program) of the Washington Department of Fish and Wildlife, Stuart Ellis (Deputy Manager, Fisheries Management Department) Columbia River Inter-Tribal Fish Commission, and Dr. John Powell (ESA Program Coordinator) of the Idaho Department of Fish and Game.

Summary: Dr. Hurst will provide an overview on adult Chinook, coho, sockeye, and chum salmon and steelhead run forecasts for the Columbia River, and expectations for the 2024 fisheries. The presentation will also include a retrospective review of the 2023 adult salmon and steelhead returns and non-treaty fisheries.

Stuart will provide summary information regarding the treaty fisheries summary for 2023 and expectations for 2024.

Dr. Powell will provide additional information for the Snake River Basin for salmon and steelhead returns along with the forecasted returns for 2024,

focusing on the species/run groupings¹ of spring, summer and fall Chinook salmon; summer steelhead; and sockeye salmon.

Relevance: This information is relevant to the Council's high-level indicators, the Council's Fish and Wildlife Program objectives and the strategy performance indicators. It gives the region a preview for what is expected for adult salmon and steelhead returns in the current year.

Workplan: Fish and Wildlife Division work plan 2024; Program planning & Coordination.

More Info:

- [2024 Joint Staff Report](#) – Stock Status and Fisheries for Spring Chinook, Summer Chinook, Sockeye, Steelhead, and Other Species.
- [Columbia River reports, forecasts, returns, and fishery plans](#)
- Data Access in Real Time (DART). Interactive, timely access to integrated Columbia Basin salmonid, environmental, hydrosystem operations, riverine, ocean and climatic data resources. <http://www.cbr.washington.edu/dart>

¹ Numbers of fish passing Lower Granite Dam comprise the aggregate count of adult salmon and steelhead destined for eastern Oregon's Grande Ronde and Imnaha river drainages and Idaho's Clearwater and Salmon River drainages.

Columbia River Salmon and Steelhead returns, forecasts and fisheries

Dr. Charlene Hurst, Columbia River Management Unit Lead, WDFW

Stuart Ellis, Deputy Department Manager of the Fisheries Management Department, CRITFC

Dr. John Powell, ESA Program Coordinator IDFG

Art Martin, Columbia River Coordination Section Manager, ODFW



Washington Department of
FISH and WILDLIFE



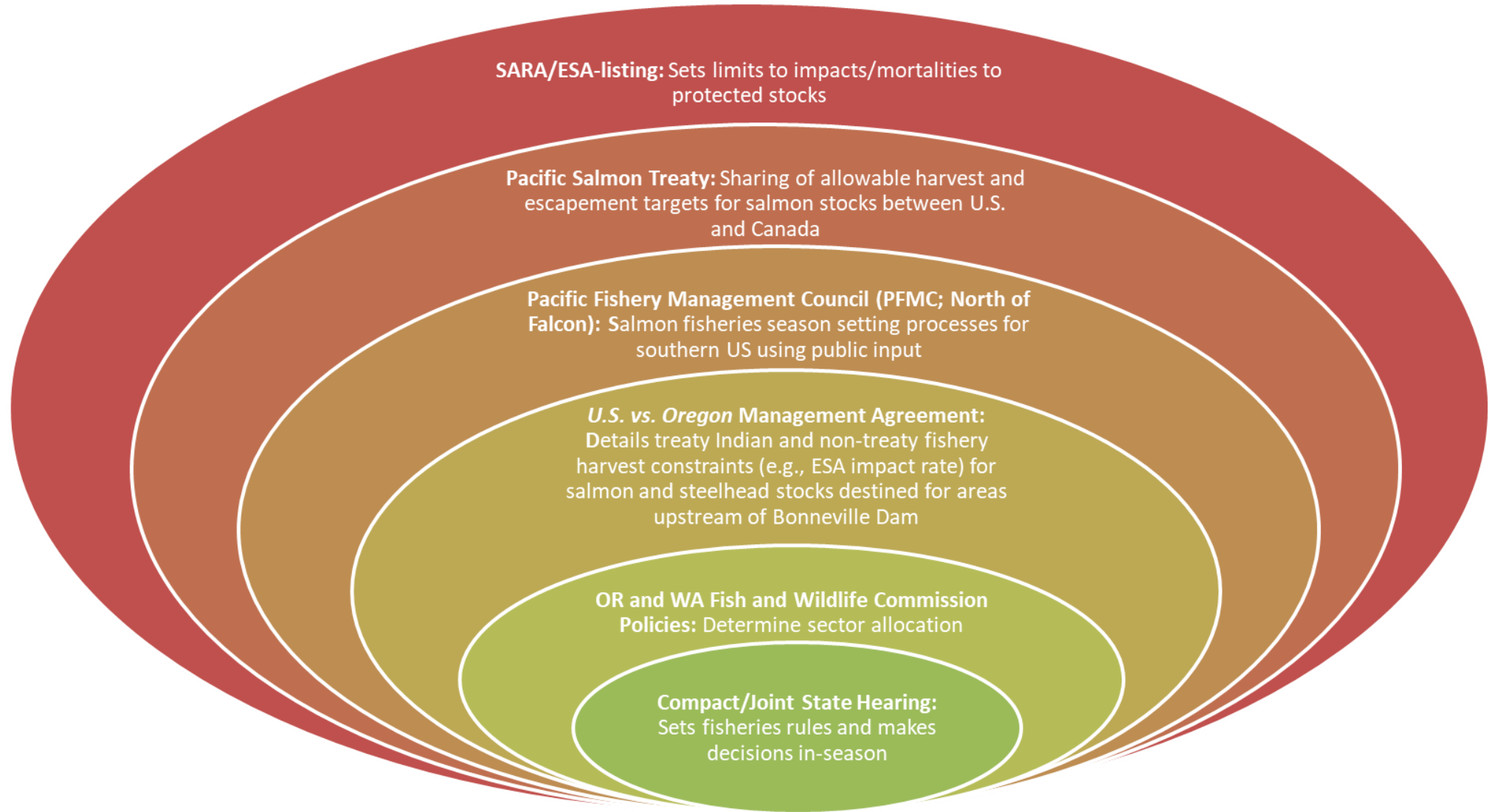
NOAA
FISHERIES

Northwest Power and Conservation Council

March 13, 2024

Fisheries Overview

Management Framework



Mainstem Fishery Management Framework for Treaty and Non-Treaty Fisheries

Mainstem Fisheries affecting upriver stocks are managed under the terms of the 2018-2027 *U.S. v. Oregon* Management Agreement

Seasonal based management structure

- Uses management stocks in different time periods as indexes for impacts to stocks of concern and ESA-listed groups

Abundance based harvest rate schedules

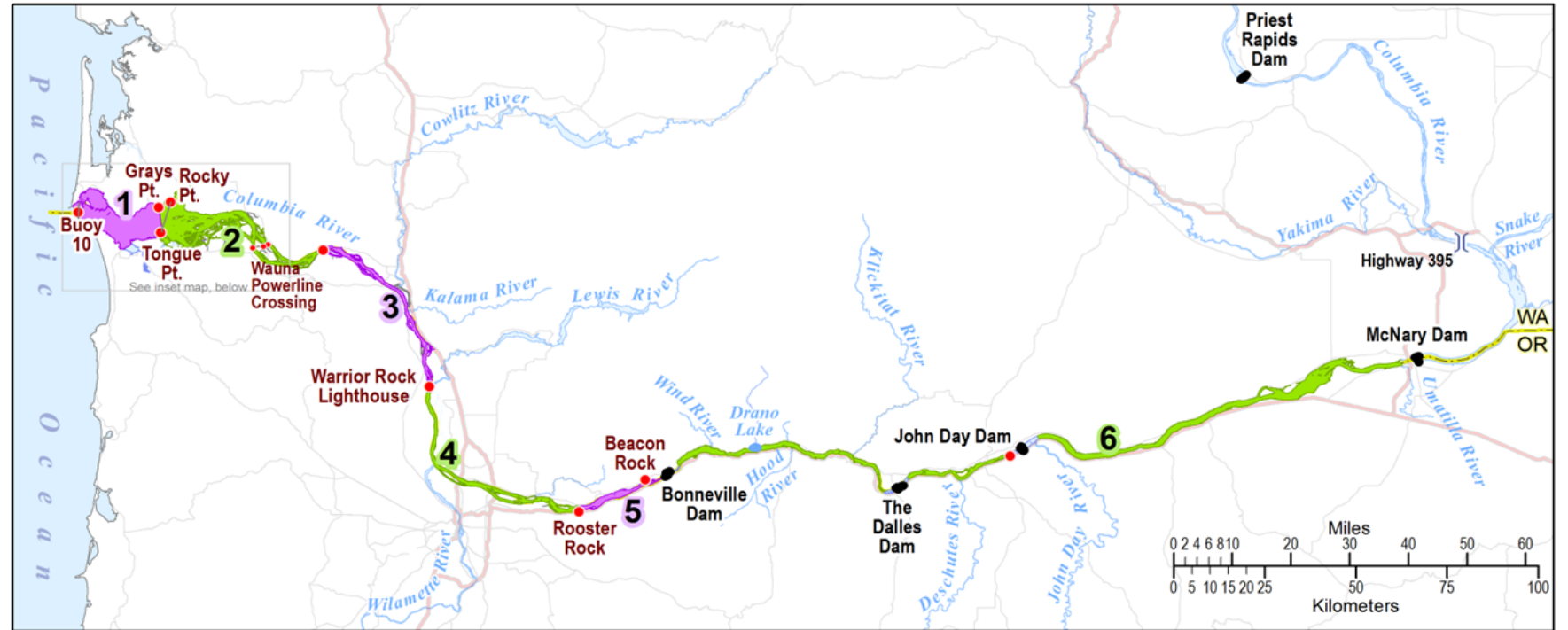
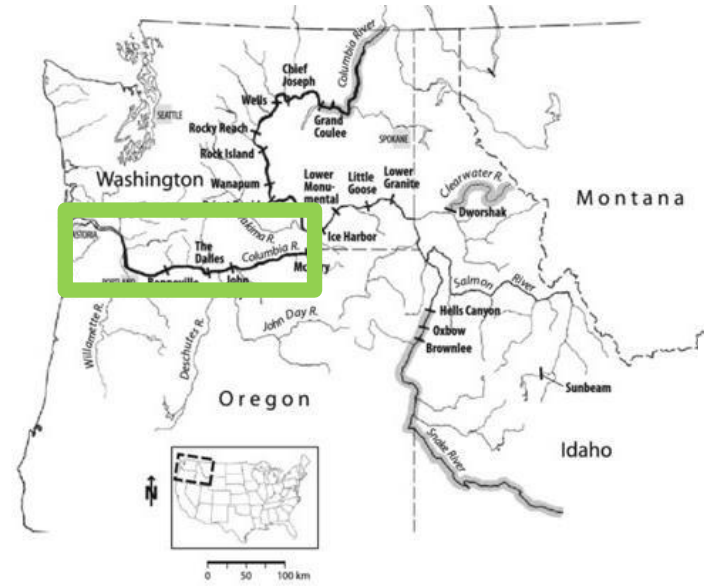
- Some schedules have additional weak stock constraints

In-season run updates

- Management of most groups on actual run sizes, not just forecasts

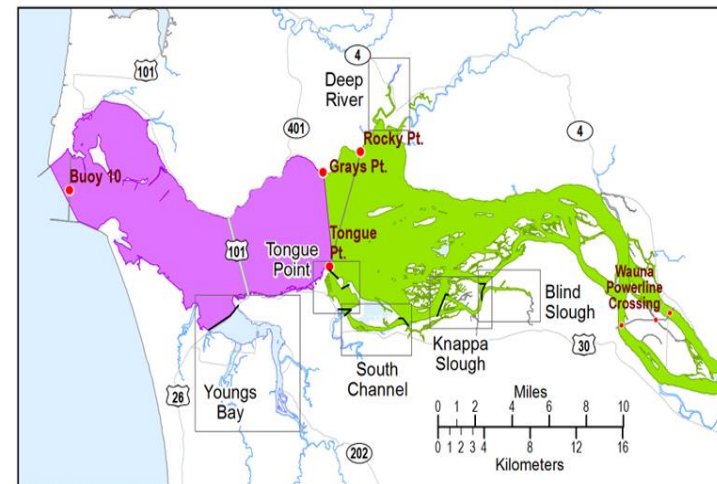
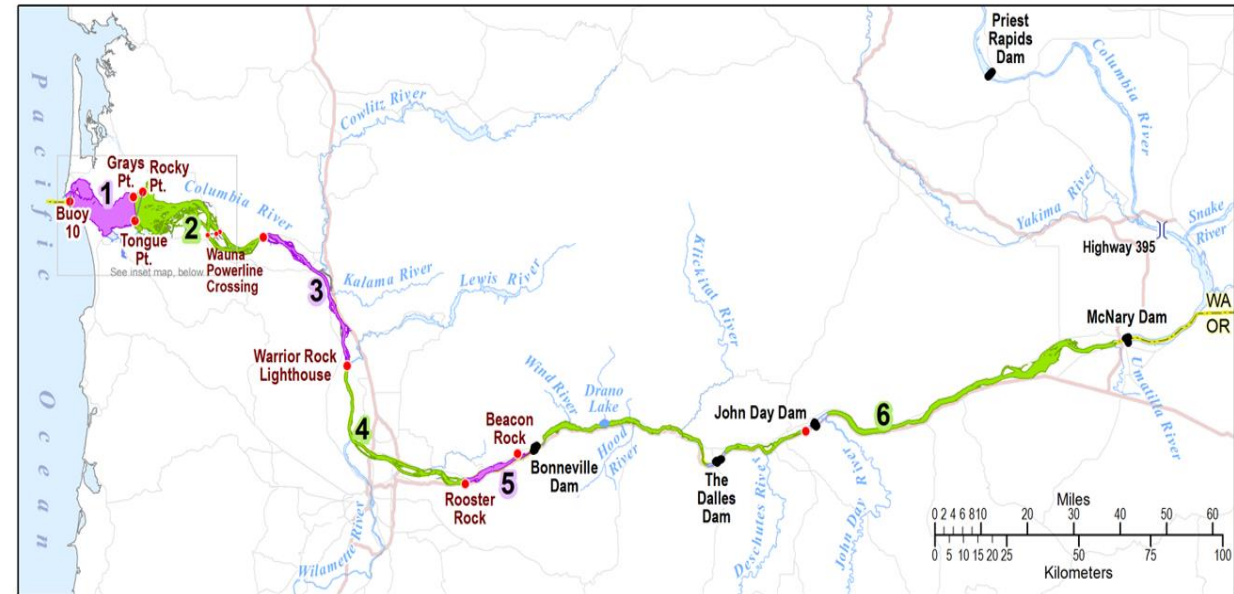
Intensive monitoring and reporting of fishery impacts

Columbia River Fishery Zones



2023 Non-Treaty Commercial Fisheries

Season	Location	Target Fish species
Winter/Spring	Mainstem	Closed
	Select Areas (off-channel areas)	Local hatchery released spring Chinook salmon
Summer	Mainstem	Closed
	Select Areas	Local hatchery released spring Chinook salmon
Fall	Zone 1-3 Mainstem	Hatchery coho salmon
	Zone 4-5 Mainstem	Chinook
	Select Areas	Local hatchery released fall Chinook and coho salmon



WDFW Fish Science, 11/23/2021

2023 Non-Treaty Sport Fisheries

Season	Location	Target Species
Spring	Buoy 10 to WA/OR Border (upstream McNary Dam)	Hatchery spring Chinook salmon and hatchery steelhead
	Snake River (WA)	Hatchery spring Chinook salmon
Summer	Below Bonneville	Sockeye, Hatchery summer Chinook salmon, and hatchery steelhead
	Bonneville to Priest Rapids Dam	Sockeye and hatchery summer Chinook salmon
	Priest Rapids Dam to Chief Joseph Dam	Sockeye and hatchery summer Chinook salmon
Fall	Buoy 10	Hatchery fall Chinook and hatchery coho: season as expected with change to mark-selective for fall Chinook for season duration
	Below Bonneville	Fall Chinook and hatchery coho
	Bonneville to Priest Rapids Dam	Fall Chinook and coho salmon (except hatchery coho downstream of Hood River Bridge).
	Snake River	Chinook salmon and hatchery steelhead

2023 Treaty Mainstem Fishery Management

Fishery Sectors

- Ceremonial permit gillnets – primarily in spring
- Subsistence platform and hook and line fisheries – Spring
- Combined subsistence and commercial platform and hook and line fisheries summer and fall
- Commercial gillnet fisheries – summer and fall, and sometimes for sturgeon in winter
- Winter setline fisheries for sturgeon

Goals

- Meet ceremonial needs in spring
- Strive to allow subsistence platform fisheries entire year
- Provide as much commercial opportunities for as many fishers and in as wide of area as feasible

Yakama Nation runs tribal mainstem fishery monitoring program

2023 Treaty Mainstem Fisheries

Season	Type	Target Species
Winter	January Setline Fishery	Sturgeon
	February/March gillnet and setline fisheries	Sturgeon
Spring	Ceremonial Permit fisheries	Spring Chinook salmon
	Subsistence Platform and Hook and Line	Spring Chinook salmon and steelhead (some shad in late spring)
Summer	Commercial Gillnet	Summer Chinook salmon, sockeye and steelhead
	Commercial and Subsistence Platform and Hook and Line	Summer Chinook salmon, sockeye and steelhead (some shad in early summer)
Fall	Commercial Gillnet	Summer Chinook salmon, sockeye and steelhead
	Commercial and Subsistence Platform and Hook and Line	Summer Chinook salmon, sockeye and steelhead (some shad in early summer)
Below Bonneville (under agreements with states)	Very minor permit hook and line in spring, open access platform and hook and line in summer and fall	Chinook, with some sockeye and coho

2023 Treaty Harvest

Winter Season/Pool	Total Catch	Guideline	Remaining
Bonneville	830	675	-155
The Dalles	441	560	119
John Day	268	210	-58
Winter Steelhead Platform catch =24			

Summer Season	Total Catch	Limit	Allowed Harvest Rate	Actual Harvest Rate
Chinook	11,072	15,856	27.7%	19.4%
Sockeye	22,061	23,032	7.0%	4.4%
Snake Sockeye	134	--	7.0%	4.4%
Steelhead	1,881	--		

Spring Season	Catch	Limit	Allowed Harvest Rate	Actual Harvest Rate
Chinook	12,240	10,447	7.40%	8.67%
Snake Wild	962	--	up to 8.2%	8.88%
UC Wild	251	--	up to 8.2%	8.88%
Steelhead	140	--		

Fall Season	Total Catch	Limit	Allowed Harvest Rate	Actual Harvest Rate
URB Fall Chinook	62,630	101,697	30.0%	18.5%
Snake Fall Chinook	2,310	--	30.0%	18.7%
Total Fall Chinook	154,630	--		
B-Index Steelhead	2,226	2,573	13.0%	11.2%
Total Steelhead	8,311	--		
Coho	17,778	--		

2024 Treaty Fisheries

- Tribal fishery Goals Remain the same
- Tribes addressing changes in harvest rates especially in our platform fishery by assuming platform rates will be much higher than historic rates.
 - We still are not sure of all factors which have changed fishery performance but a more cautious approach to planning is warranted
- Spring will be focused on ceremonial and subsistence – no commercial at this run size
- Summer and fall commercial fishery structure should be fairly similar to last year based on pre-season forecasts

2023 Returns and 2024 Forecasts for the Columbia Basin

U.S. v Oregon

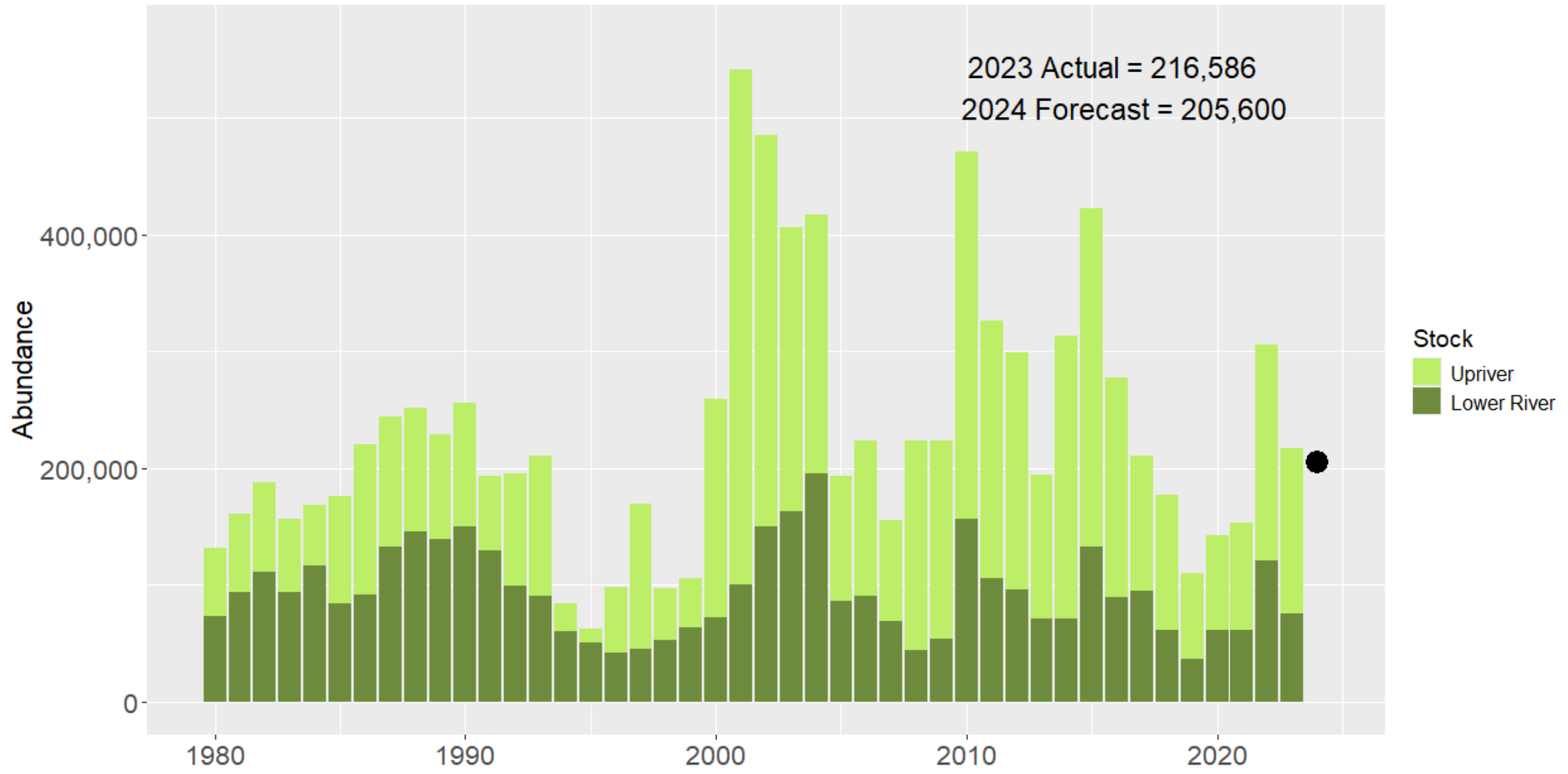
Technical Advisory Committee

- Consists of staff from federal, tribal and state entities
- TAC 'reconstructs' Columbia River salmon and steelhead returns post season and develops pre-season forecasts.
- TAC reviews salmon and steelhead stock status as the runs progress and provides in-season run size updates.
- In-season updates allow fishery managers to adjust fisheries to remain within harvest constraints

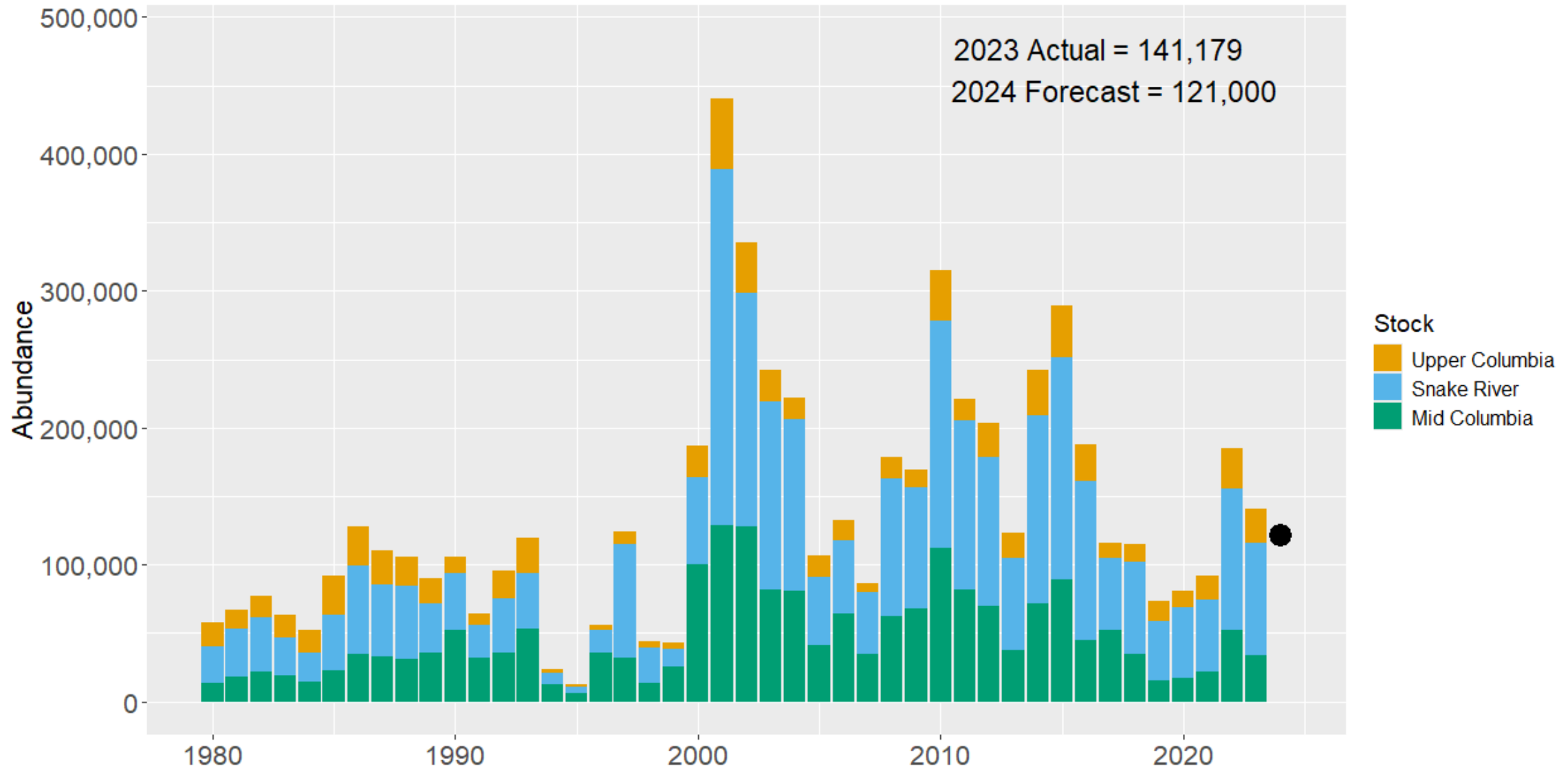


Chinook Salmon

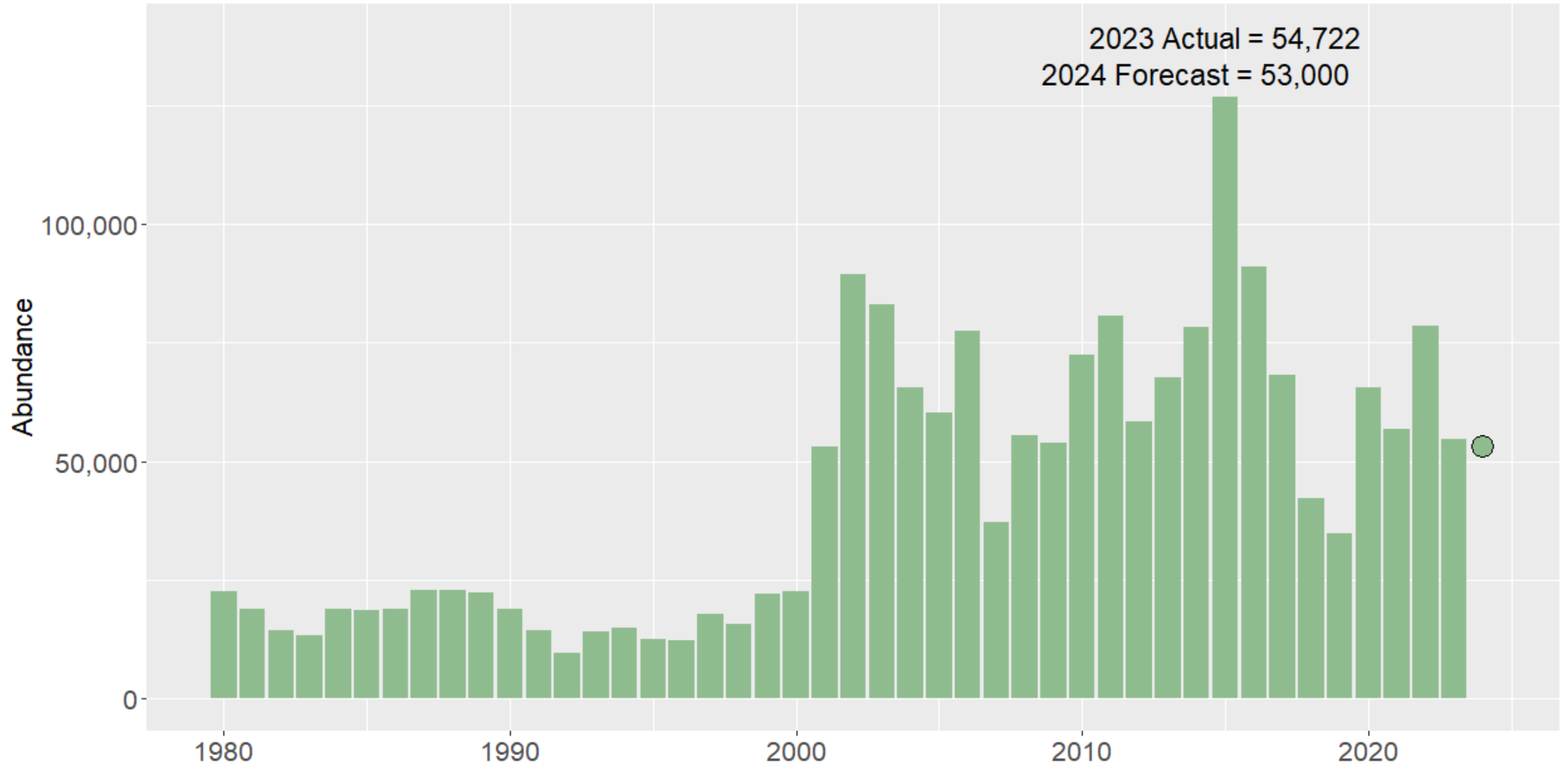
Lower and Upriver Spring Chinook



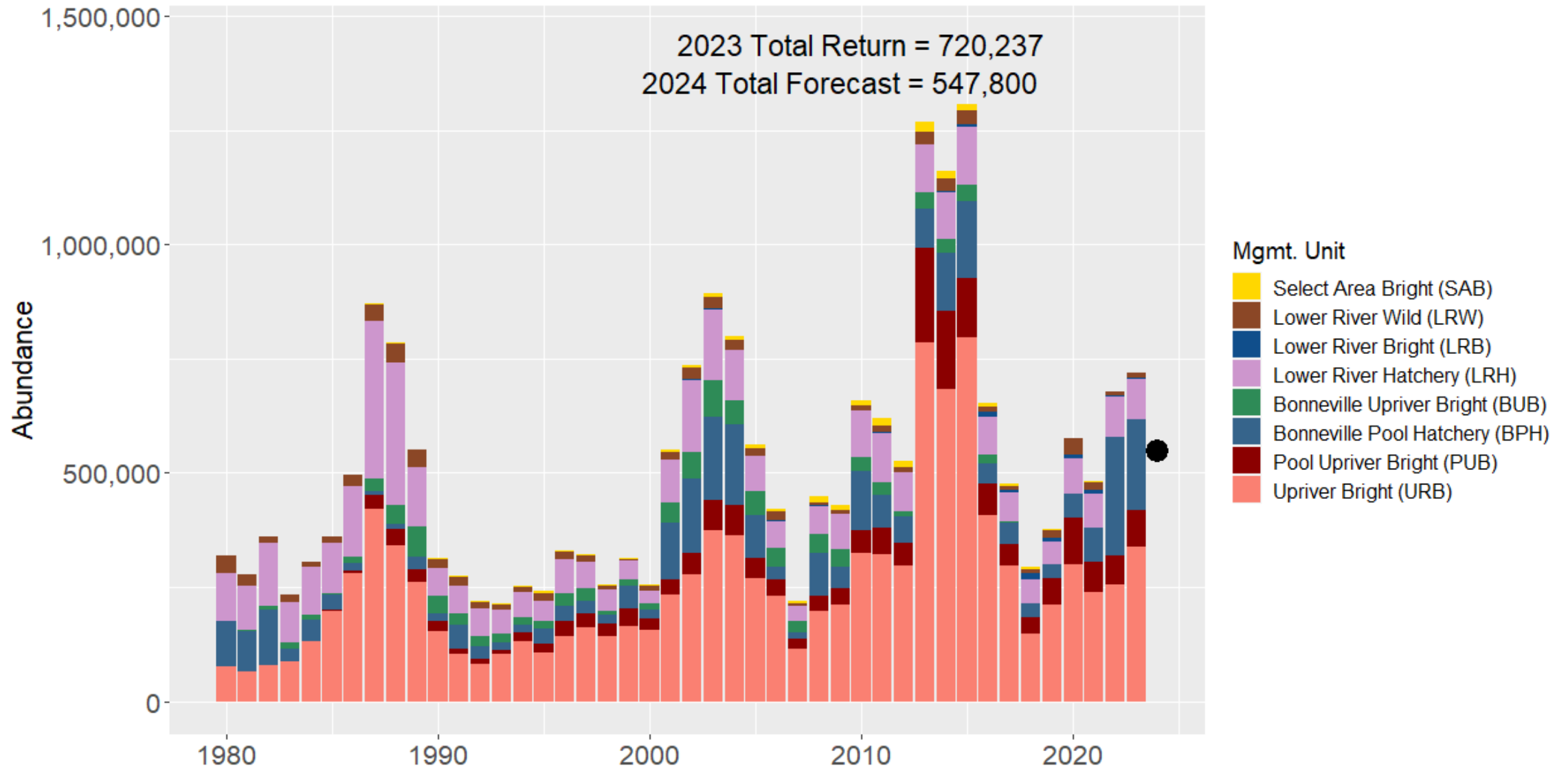
Upriver Spring Chinook



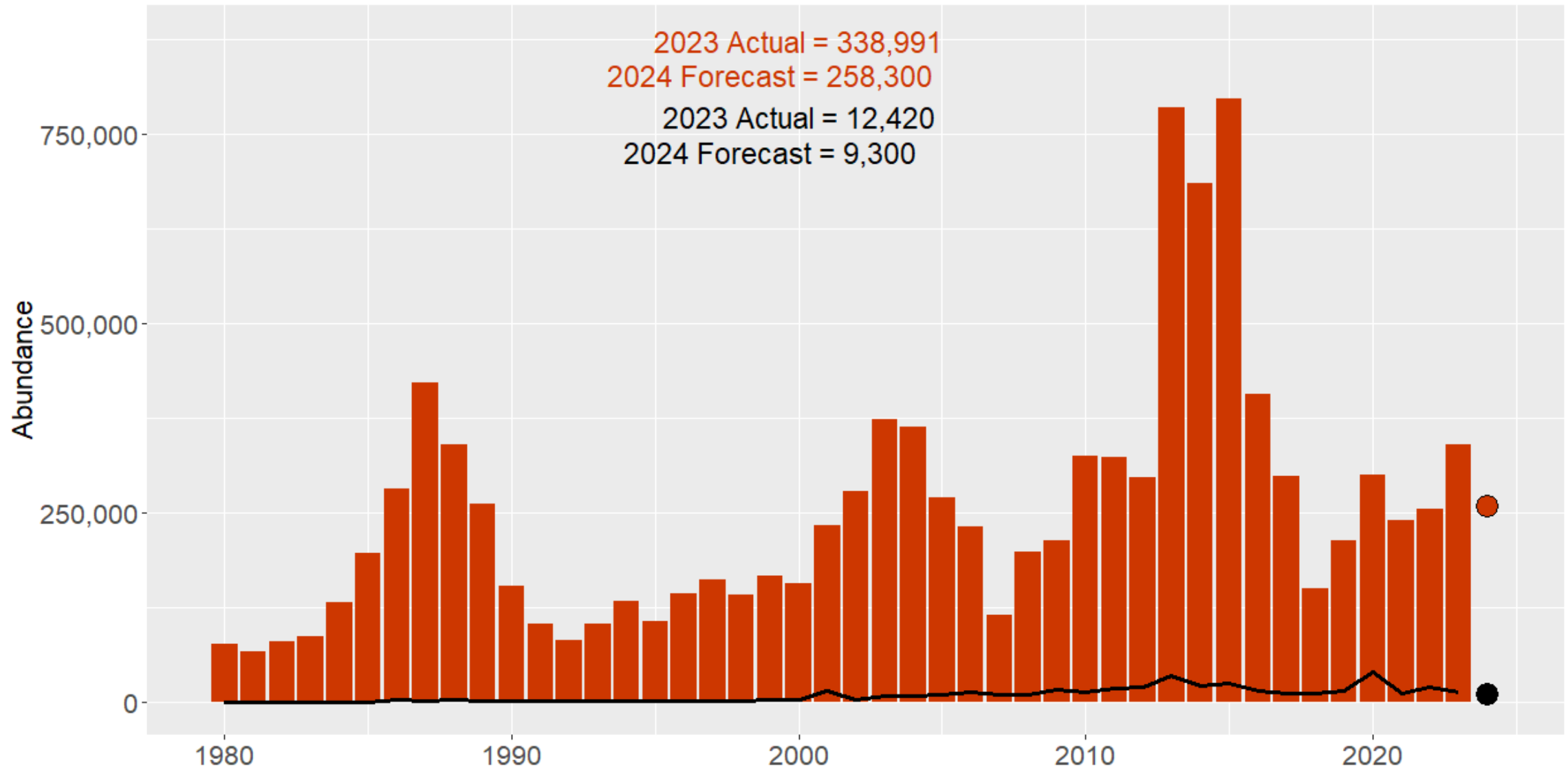
Upper Columbia Summer Chinook



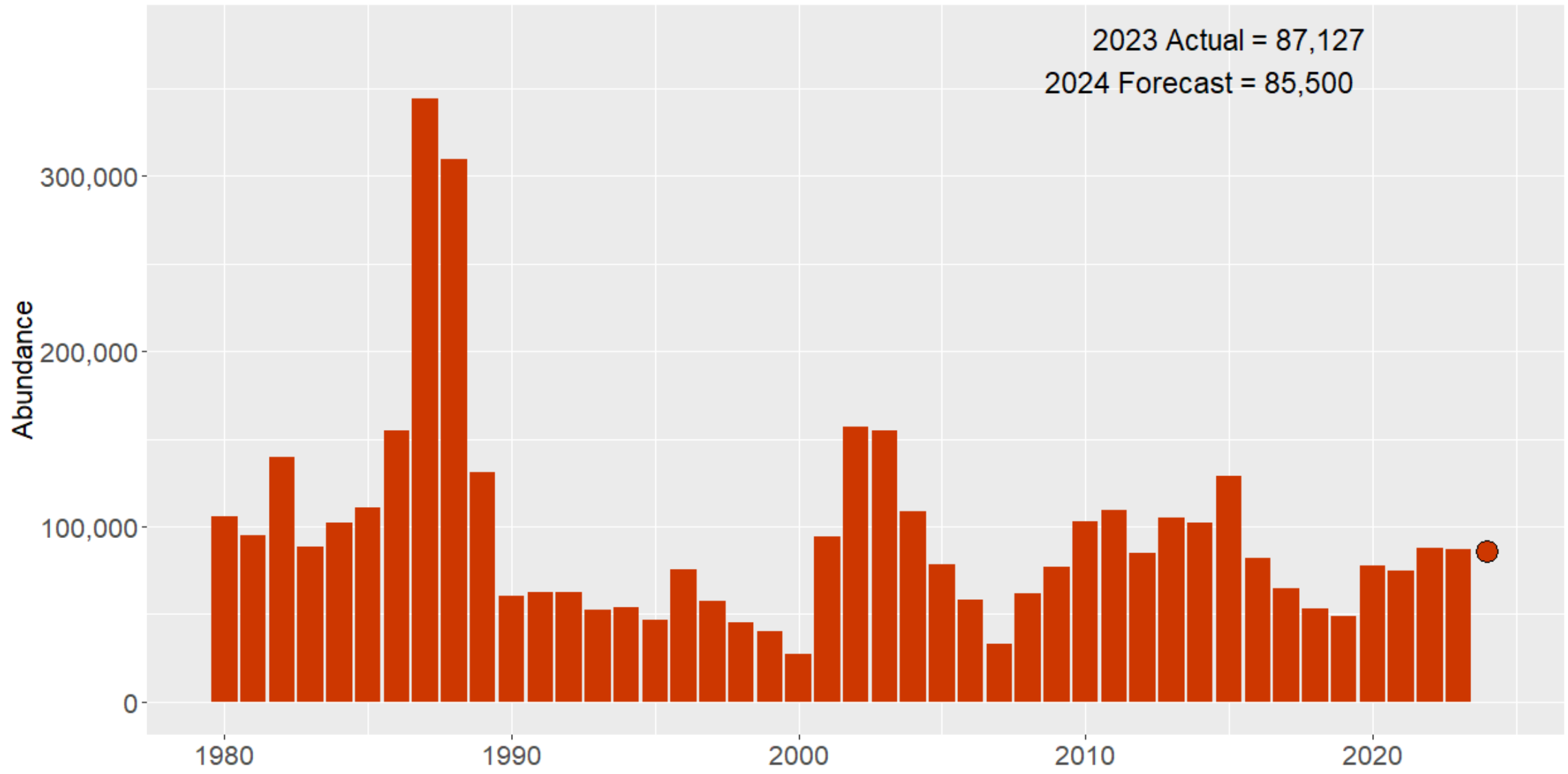
Columbia River Fall Chinook



Upriver Bright Fall Chinook and Snake River Wild



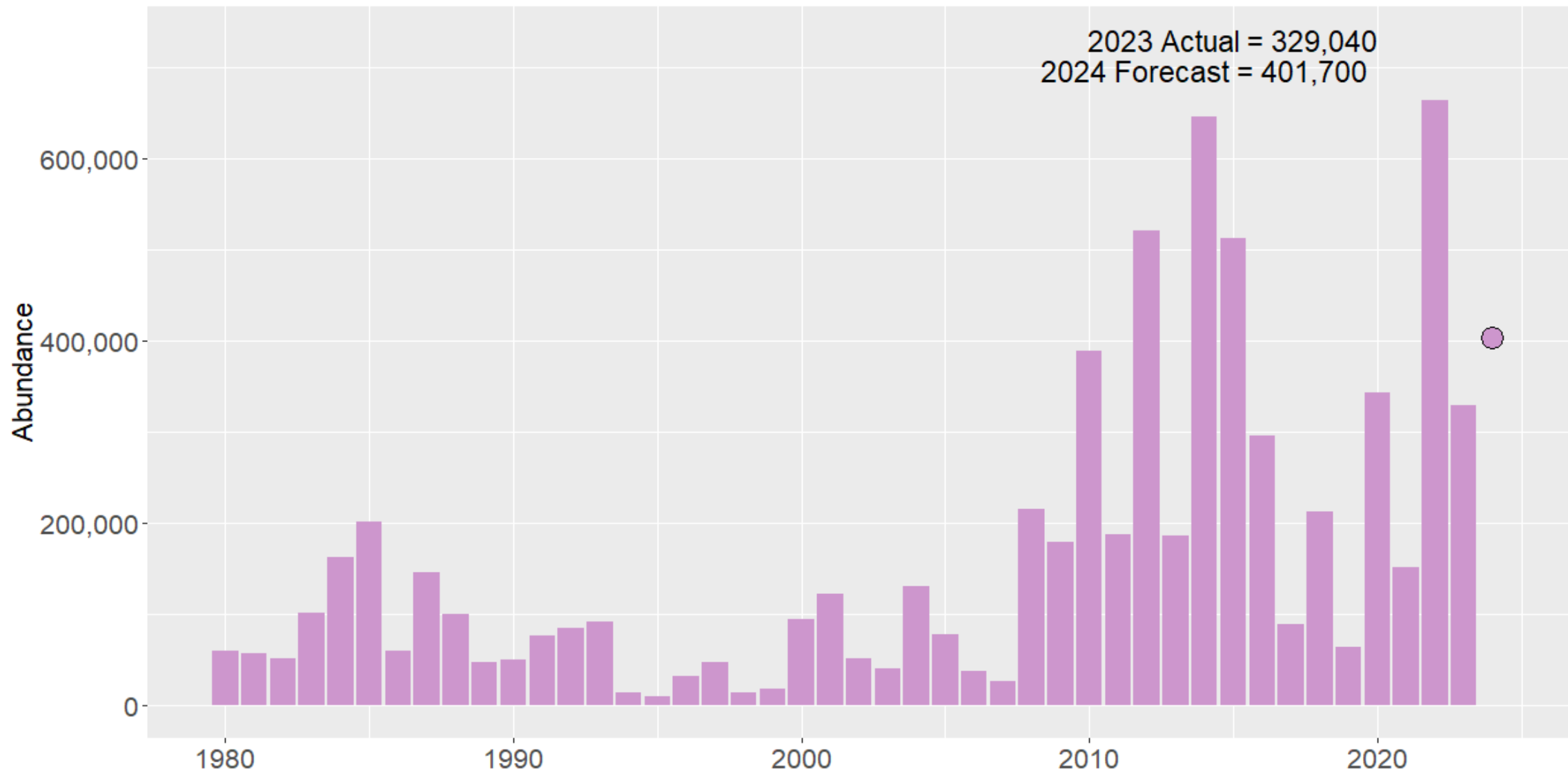
LRH Fall Chinook





Sockeye

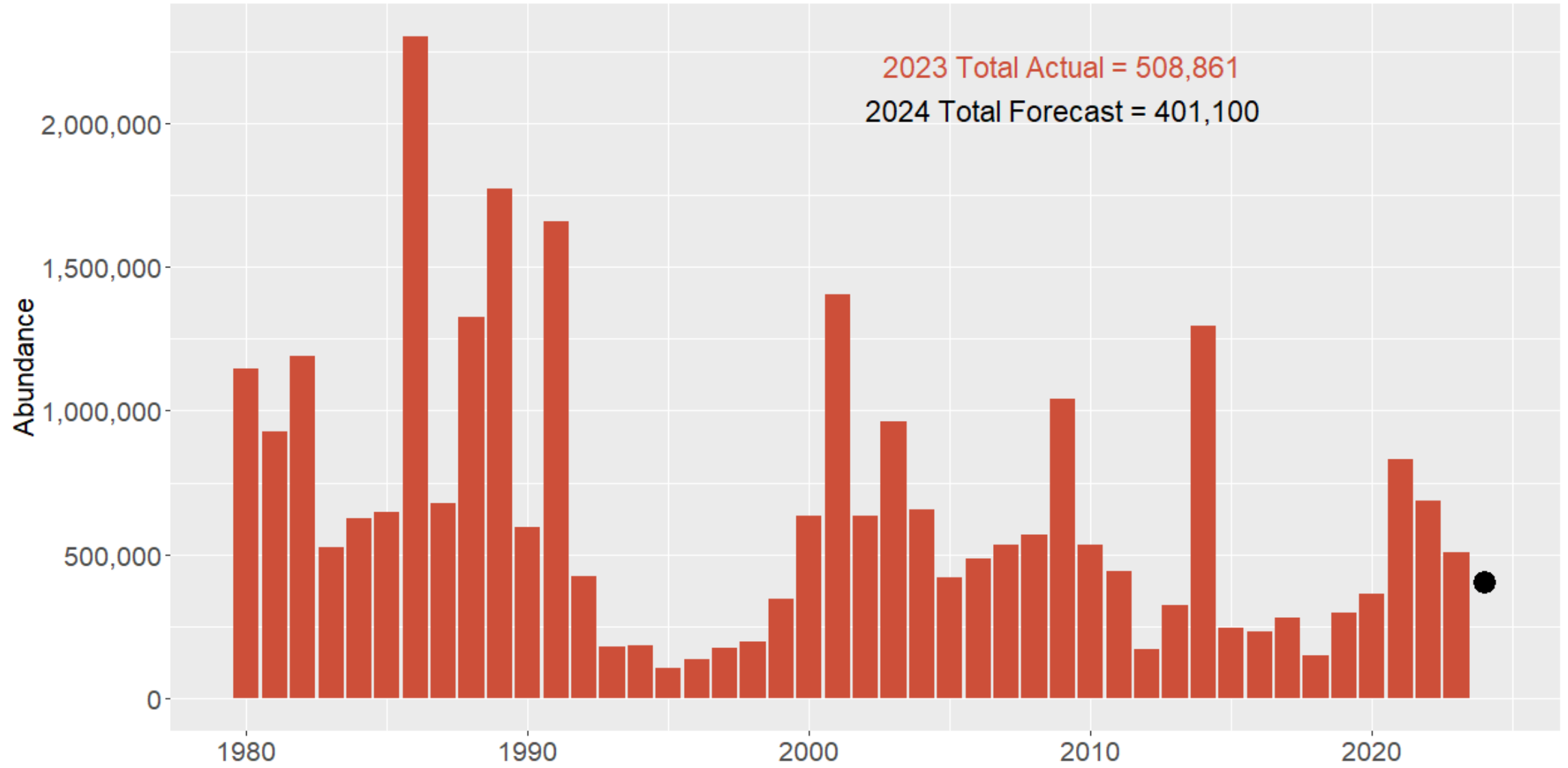
Columbia River Sockeye



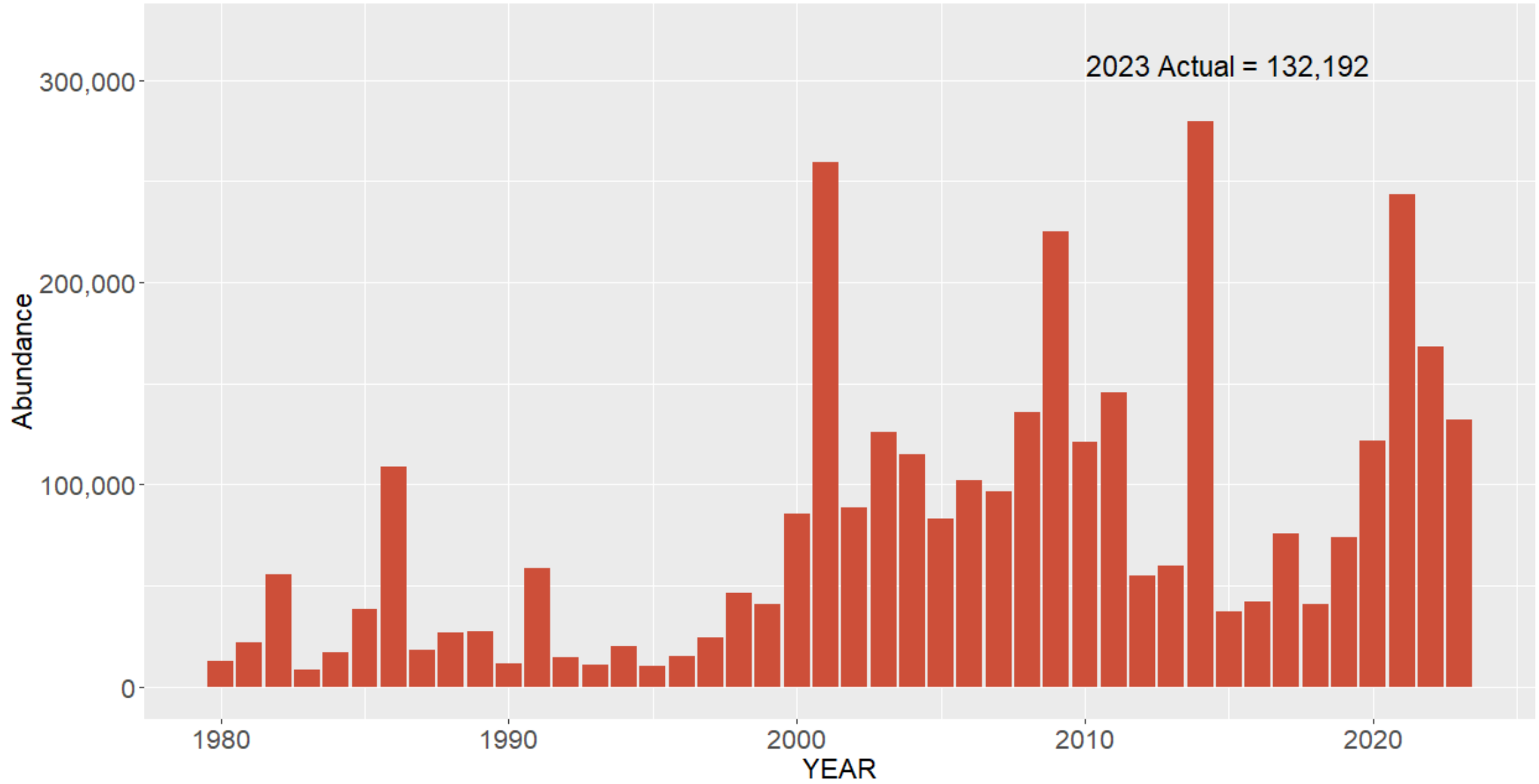


Coho

Columbia River Coho - ocean abundance



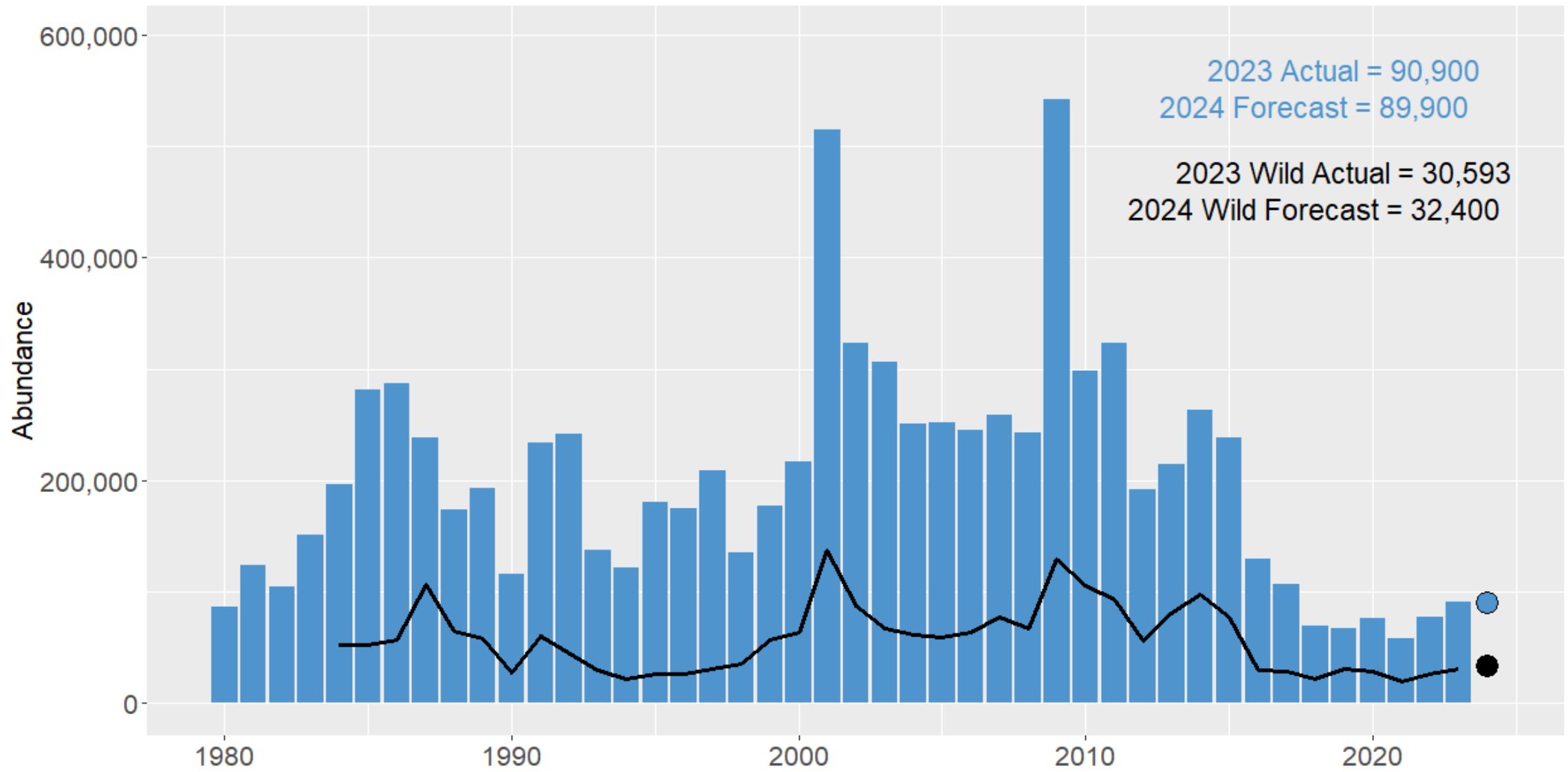
Upriver Coho passage - Bonneville Dam



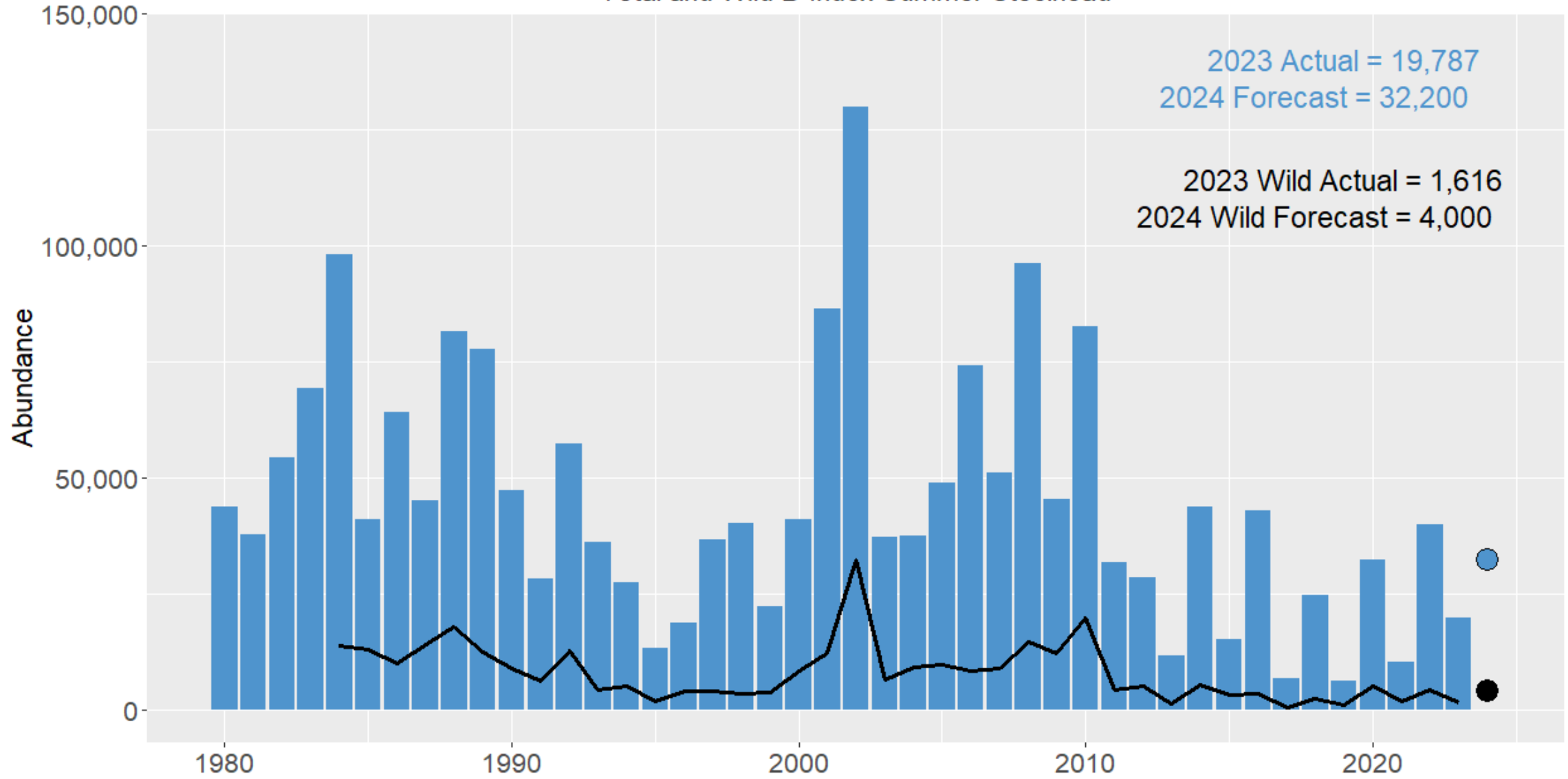


Steelhead

Total and Wild A-Index Summer Steelhead



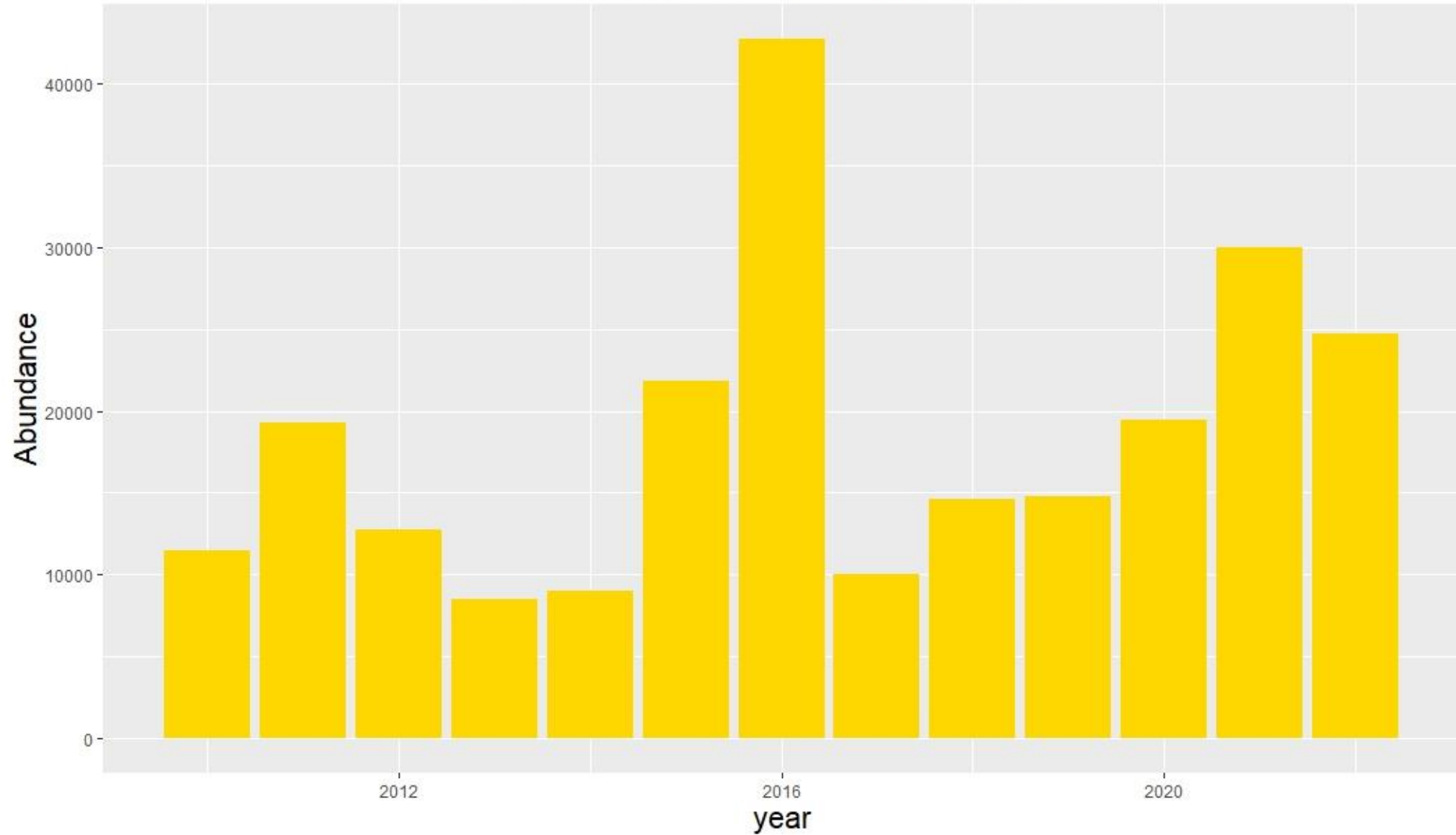
Total and Wild B-Index Summer Steelhead





Chum

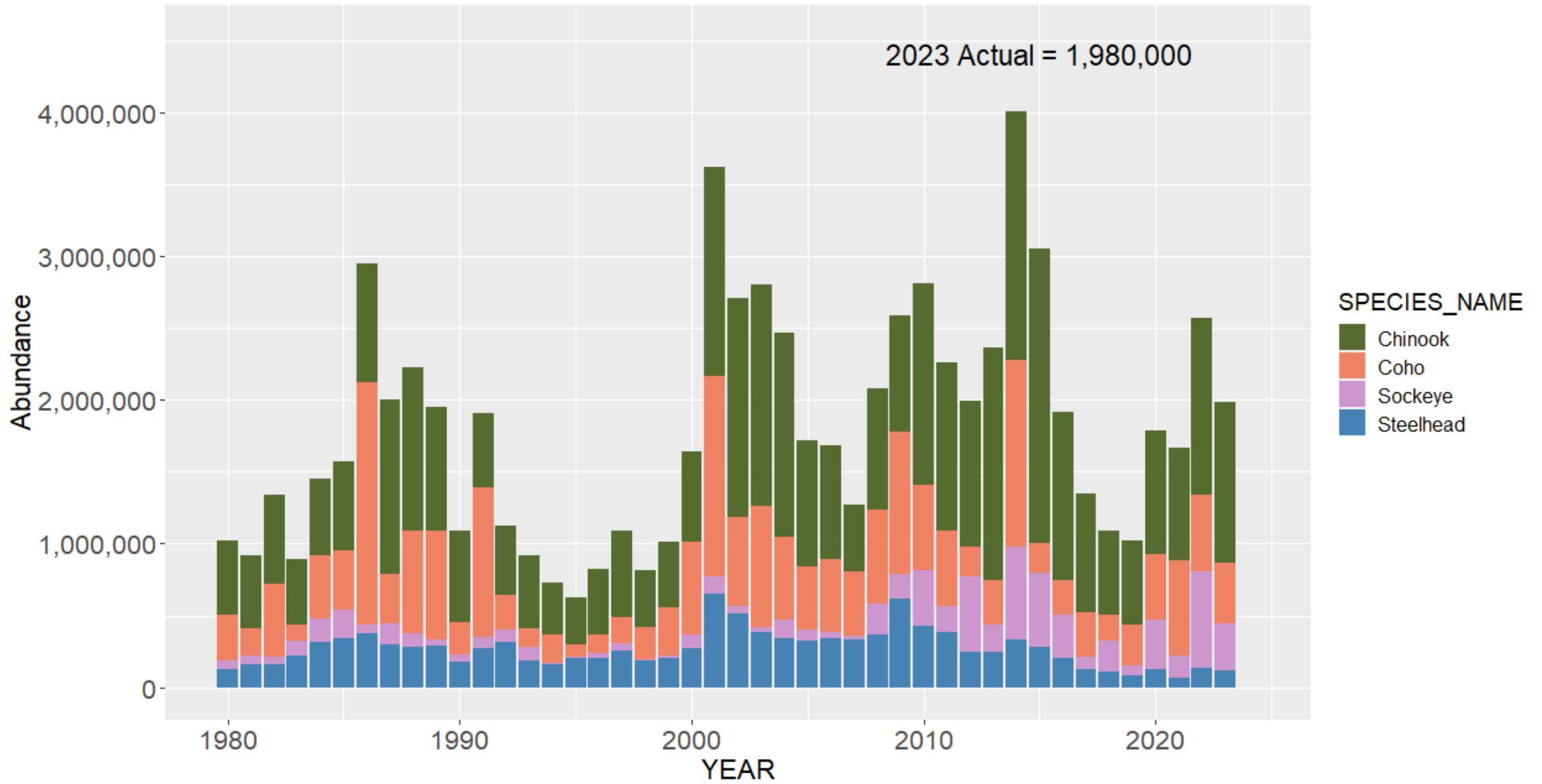
Chum Abundance in Select Washington Tributaries



Total salmonid returns to the Columbia River

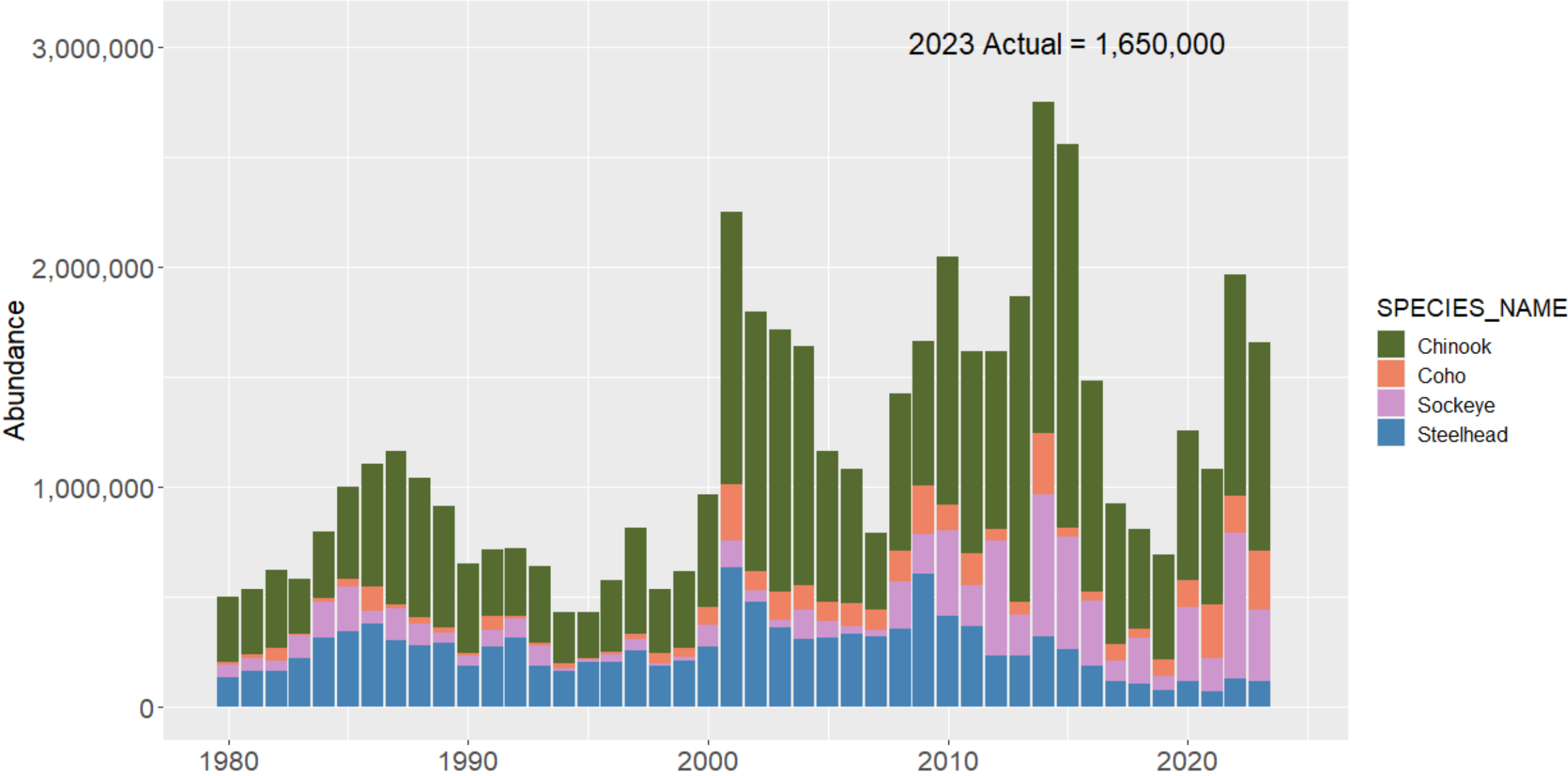
Columbia River Salmonids

2023 Actual = 1,980,000



Columbia Basin Partnership Goals: 2,603,600 (low); 7,724,600 (high)

Upriver Salmonids



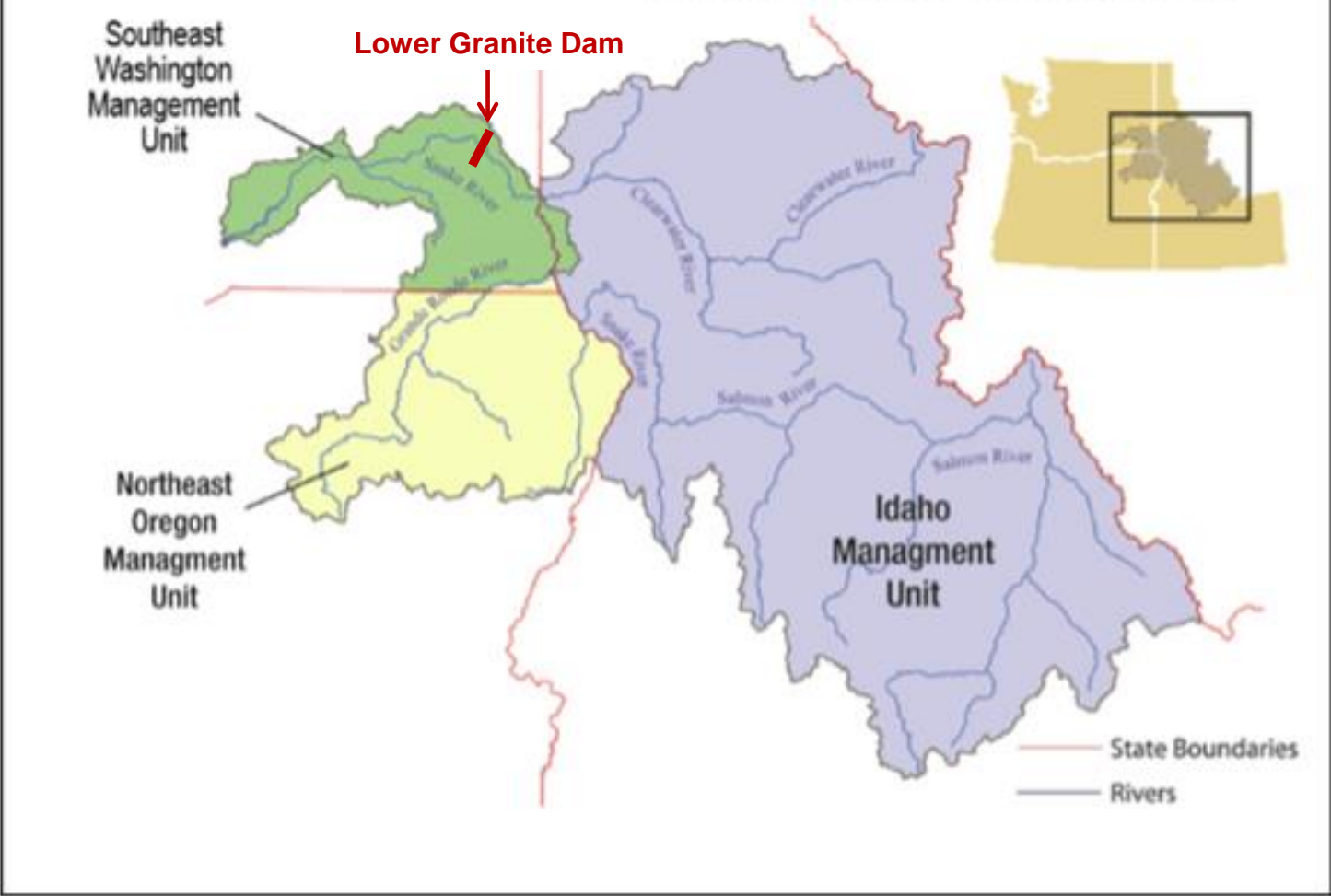
- For 2024, the total salmonid forecast is similar in abundance to the 2023 return
- About 70% of the Columbia Basin Partnership low abundance goal

Species	Stock	2024 Forecast vs. 2023 Return
Spring Chinook		↓
Summer Chinook		↓
Fall Chinook	Total	↓
	URB/SRW	≡
	LRH	≡
Coho		↓
Summer Steelhead	A-index	≡
	B-index	↑
Sockeye Salmon		↑
Chum salmon		↑

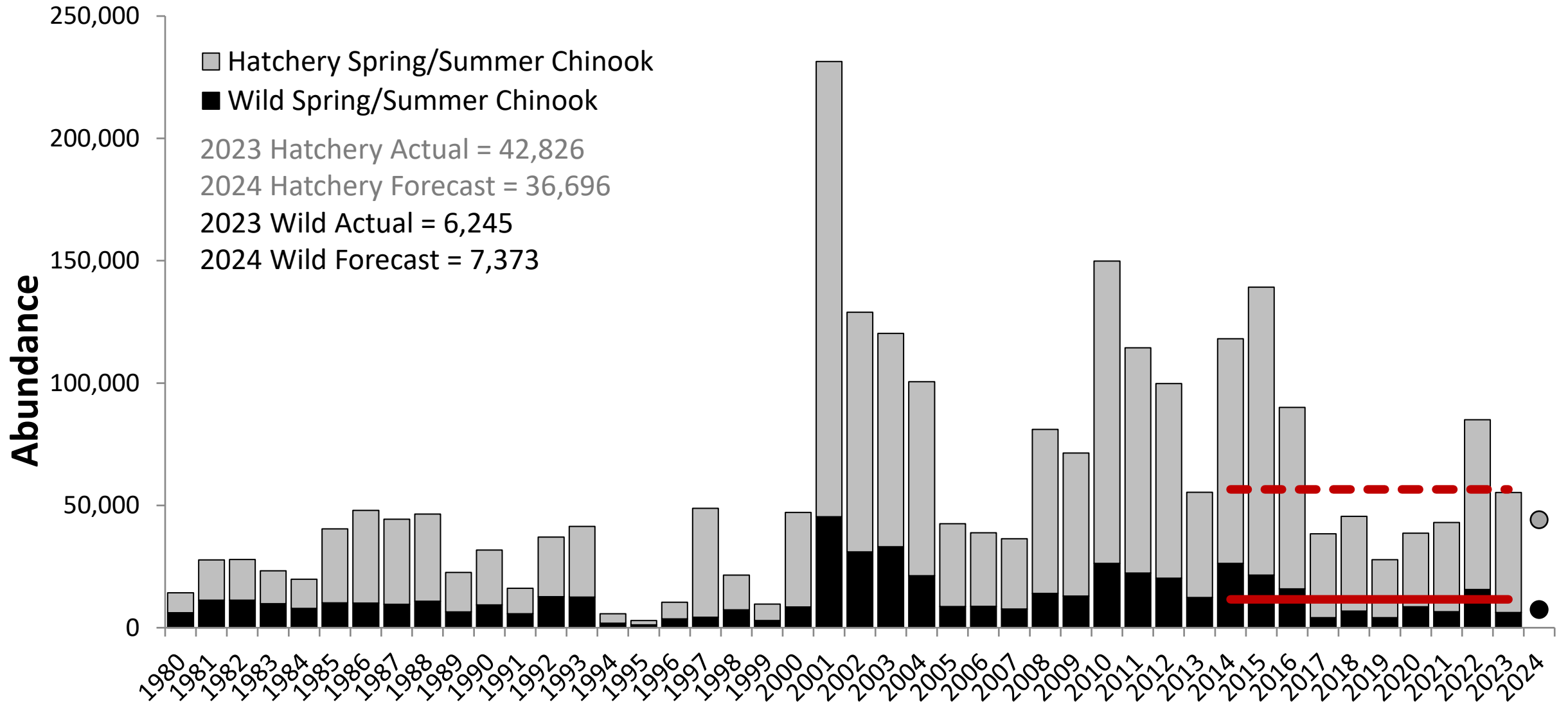
Summary

2023 Returns and 2024 Forecasts for the Snake River Basin

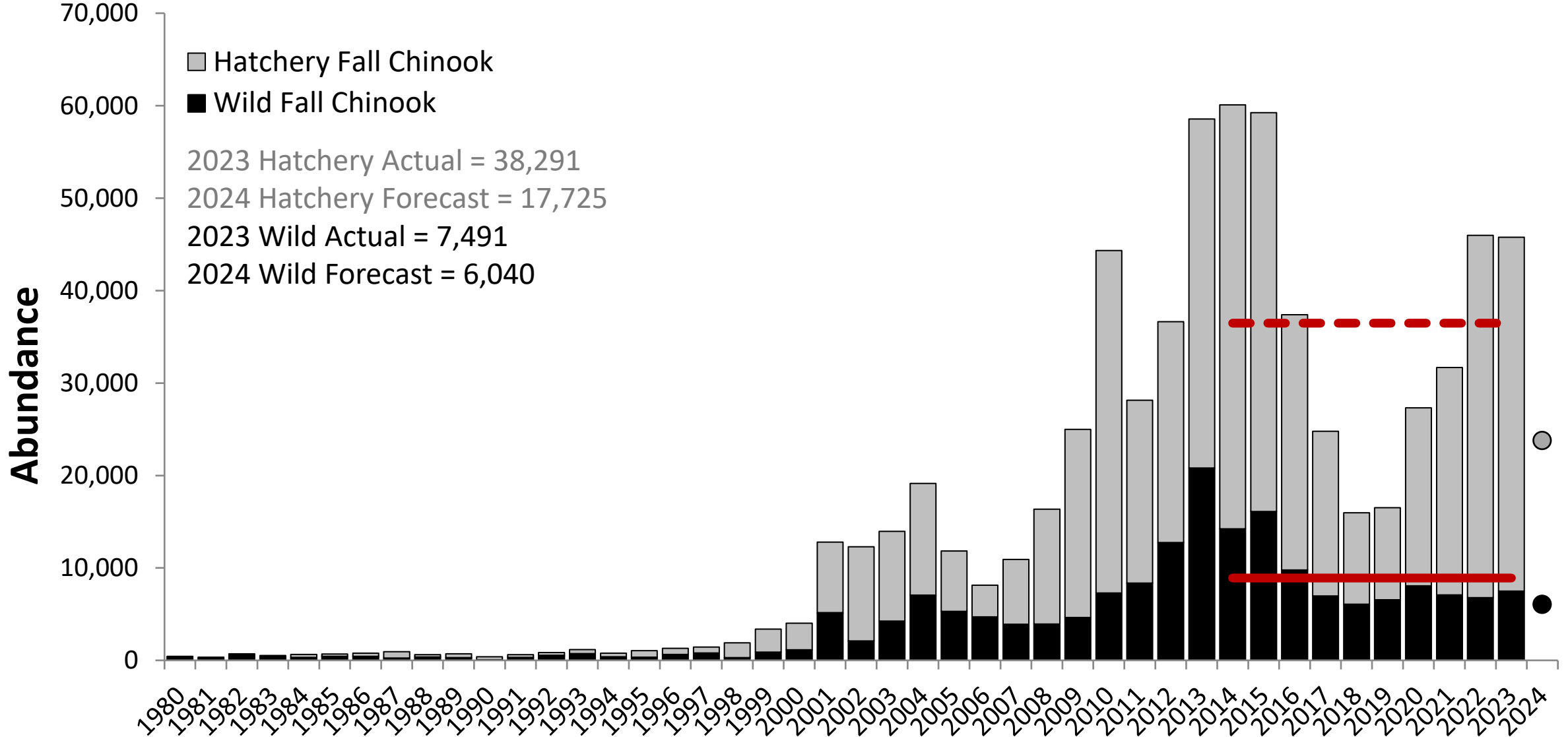
Snake River Recovery Plan Management Unit Boundaries



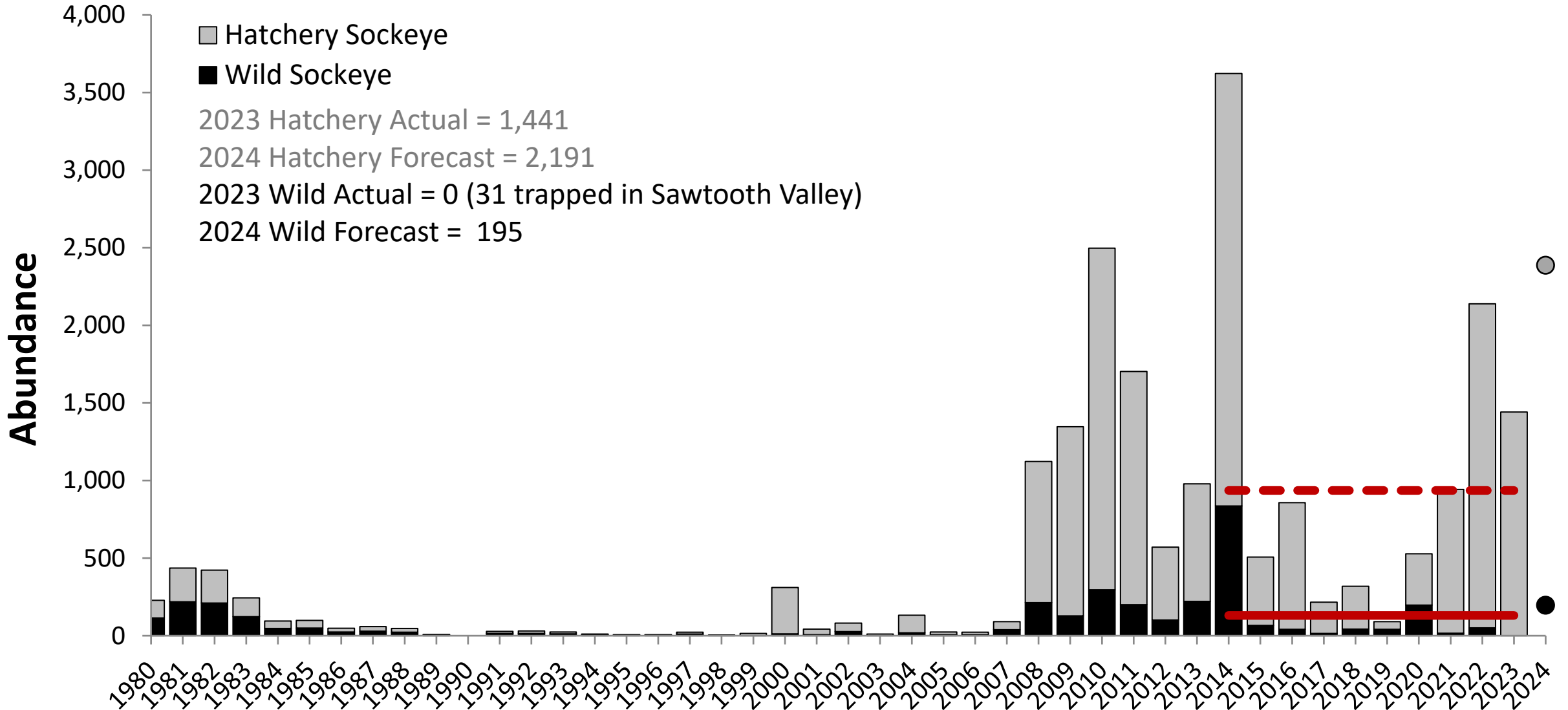
Snake River spring/summer Chinook salmon at Lower Granite Dam



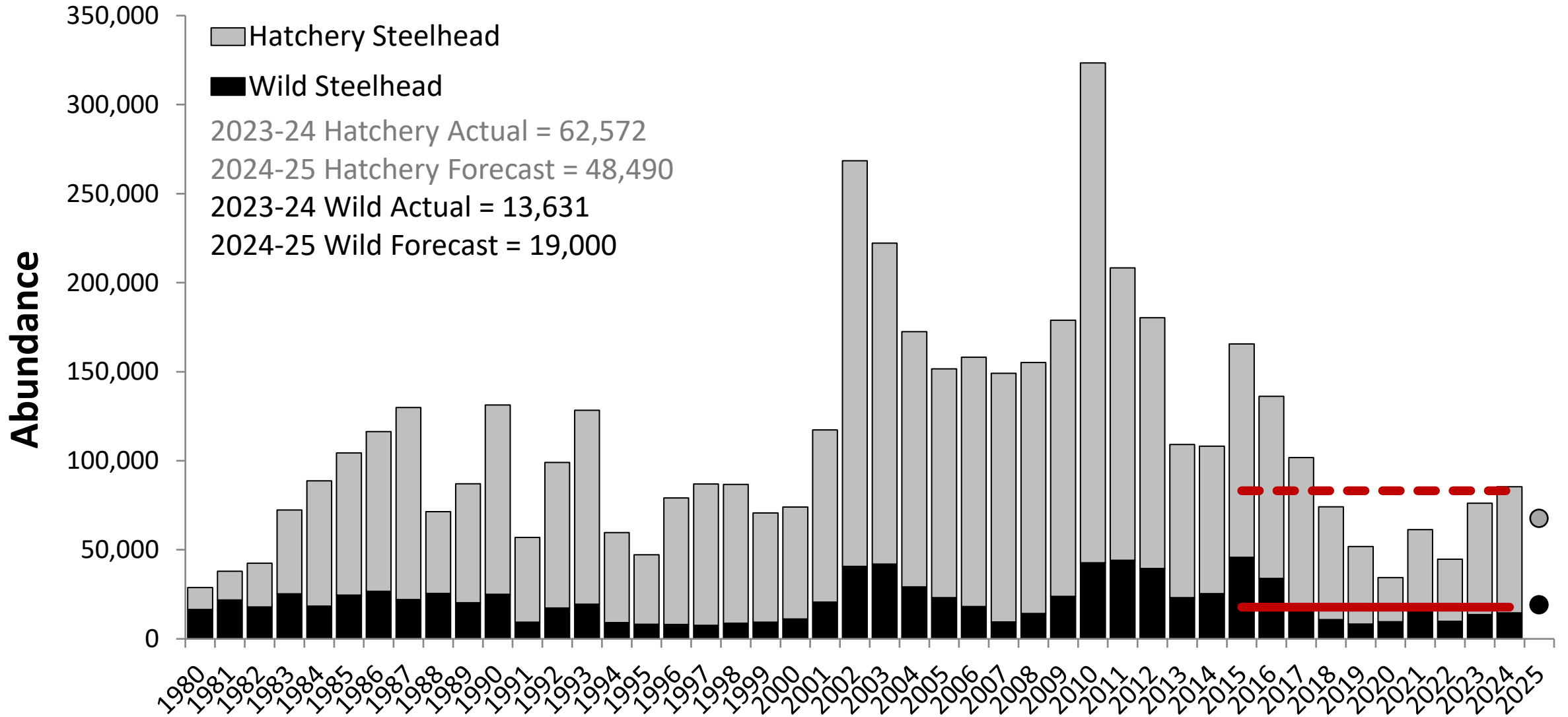
Snake River fall Chinook salmon at Lower Granite Dam



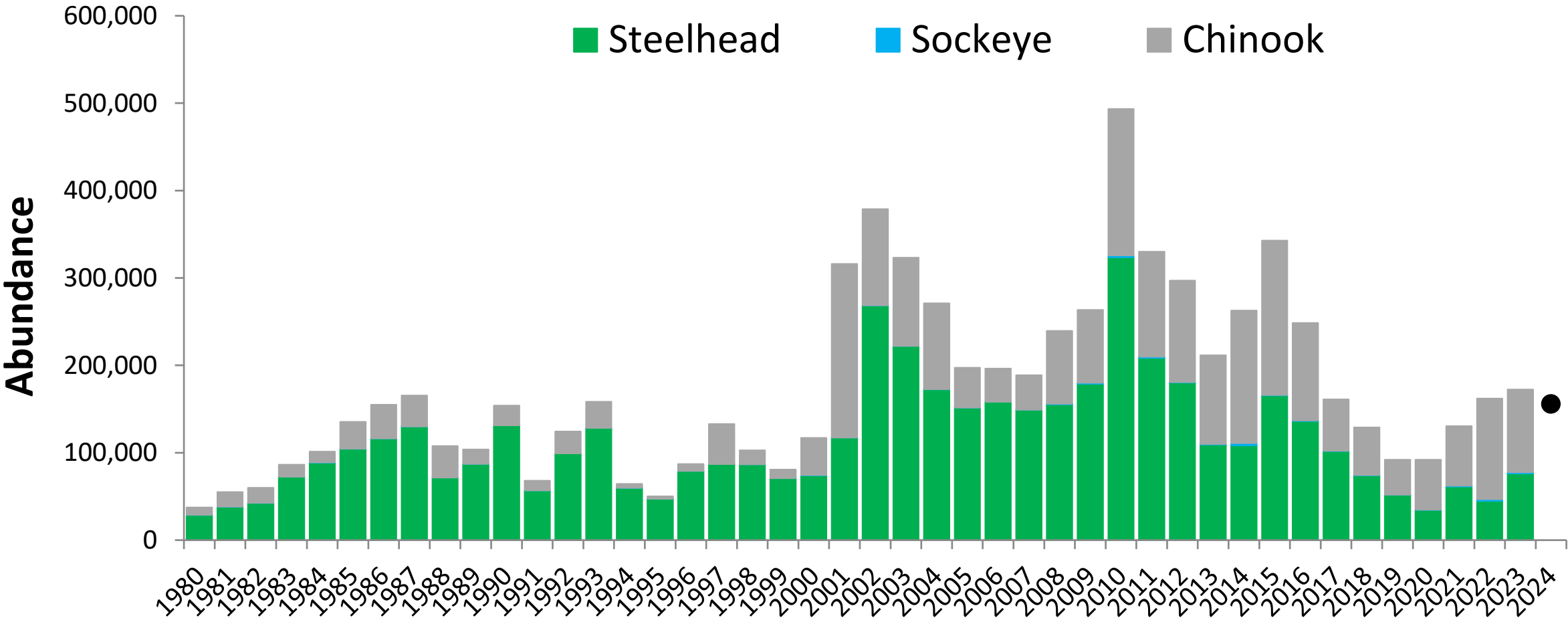
Snake River sockeye at Lower Granite Dam



Snake River steelhead at Lower Granite Dam



Salmonids at Lower Granite Dam



Columbia Basin Partnership goals: 317,500 (low) - 700,000 (high)

Snake River basin summary

Species	2024 Forecast vs. 2023 Return
Spring/Summer Chinook	Hatchery ↓, Wild ↑
Fall Chinook	Hatchery ↓, Wild ↓
Sockeye	Hatchery ↑, Wild ↑
Steelhead	Hatchery ↓, Wild ↑

- Similar 2024 total salmonid forecast and 2023 return
- About 50% of the Columbia Basin Partnership low abundance goal



IDFG, Brian Pearson

Find out More!

WDFW

- [Columbia River fisheries and management | Washington Department of Fish & Wildlife](#)
- [WDFW mailing lists | Washington Department of Fish & Wildlife](#)

CRITFC

- <https://critfc.org/tribal-treaty-fishing-rights/policy-support/public-documents/>
- <https://critfc.org/fish-and-watersheds/fish-and-habitat-restoration/the-plan-wy-kan-ush-mi-wa-kish-wit-2/>
- <https://critfc.org/harvest/>

IDFG

- [IDFG Main Fisheries page: https://idfg.idaho.gov/fish](https://idfg.idaho.gov/fish)

ODFW

- [ODFW Columbia River Fisheries \(state.or.us\)](https://state.or.us)