



Oregon Fish and Wildlife Commission

February 18, 2022

Exhibit F

Lower Columbia River White Sturgeon Population and Fisheries Update

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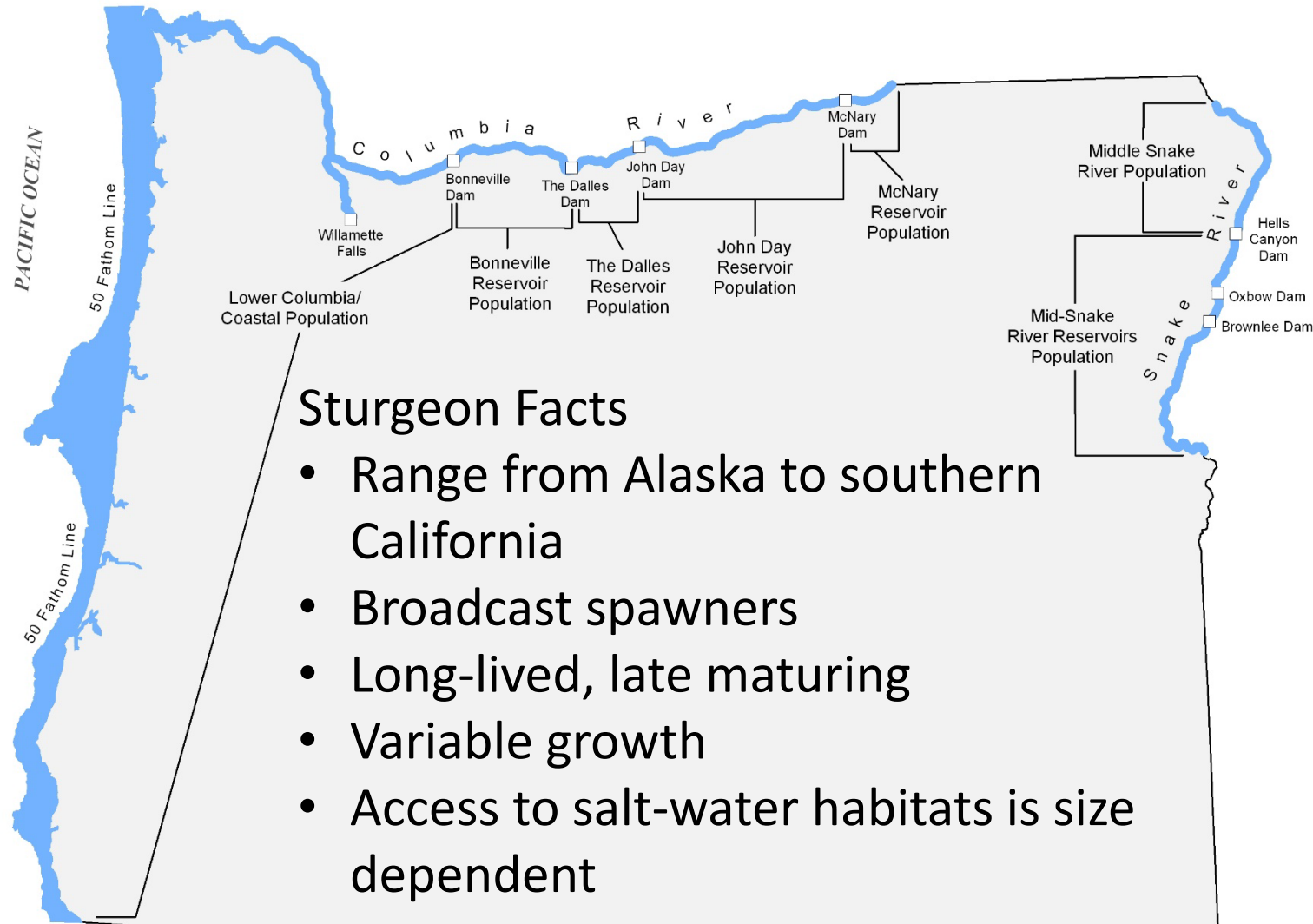


Today's Topics

- White Sturgeon Background
- 2021 Stock Status and Fisheries
- Pinniped Predation
- 2022 Projections and Management plans



Sturgeon in Oregon – Distribution and Biology



Sturgeon Facts

- Range from Alaska to southern California
- Broadcast spawners
- Long-lived, late maturing
- Variable growth
- Access to salt-water habitats is size dependent

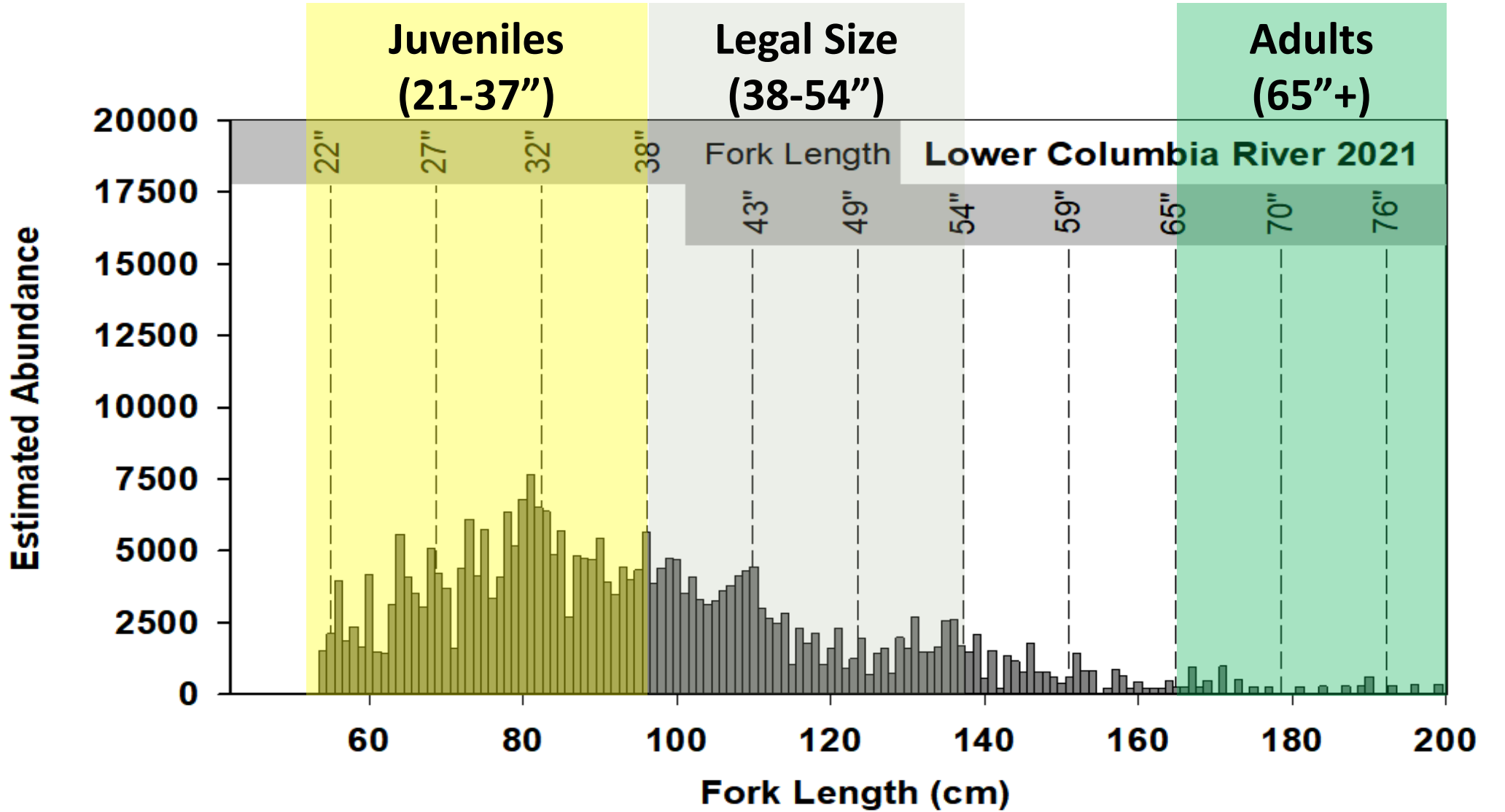
Sturgeon in Oregon - Past Management



- Between the late 1980s and 2010, LCR sturgeon fisheries managed with exploitation rates in the 20-30% range
- With adoption of Oregon's sturgeon conservation plan the rate was reduced to 15%
- Lower Columbia sturgeon population closed to harvest in 2014 due to declining sub-adult and adult population estimates
- A noted increase in sub-legal abundance was detected in 2016, and since 2017 limited retention fisheries have occurred in the lower Columbia River
- However, in recognition of ongoing productivity issues, fisheries were implemented with much reduced exploitation rates (<5%)



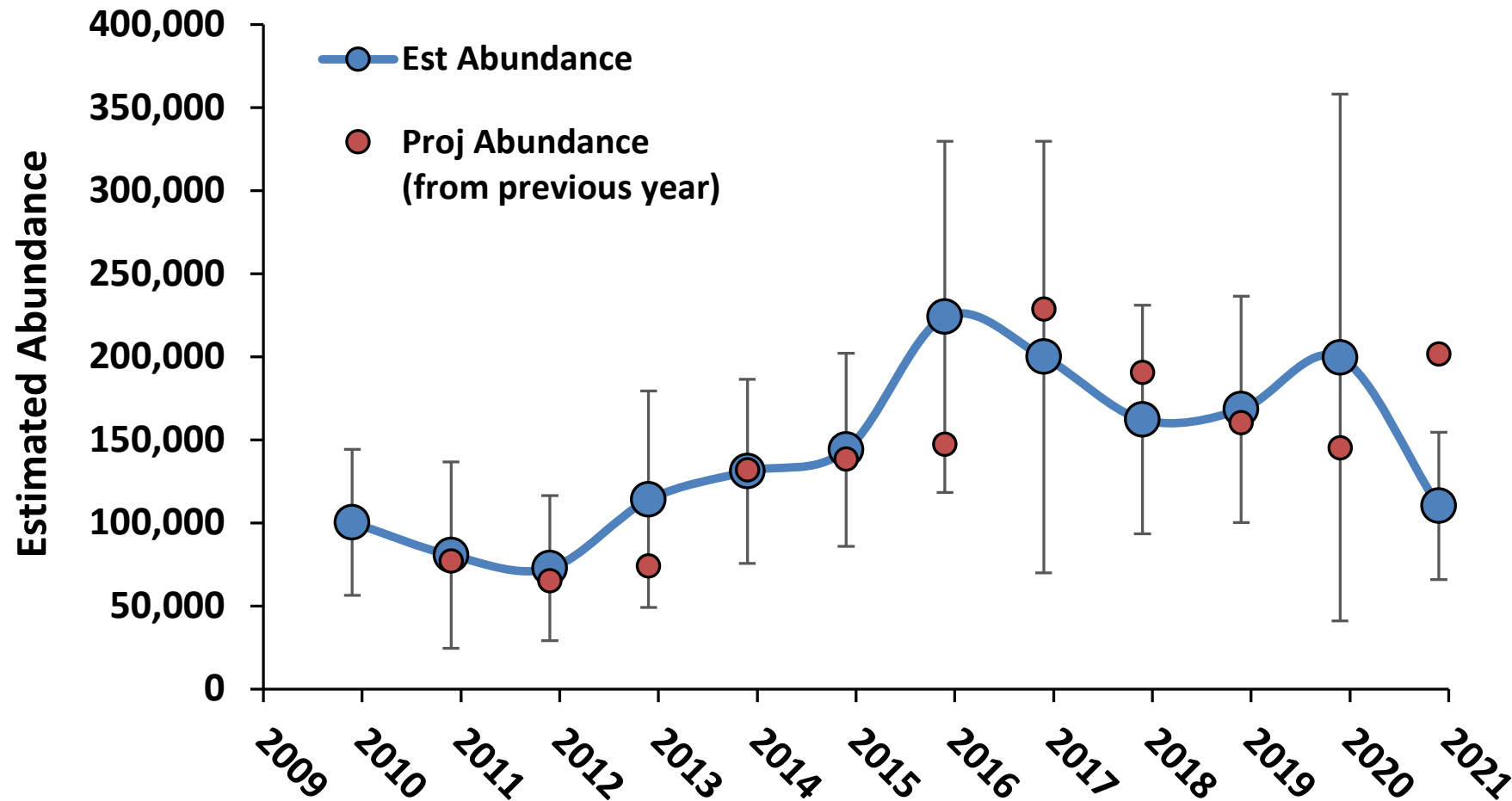
2021 LCR Abundance and Size Distribution



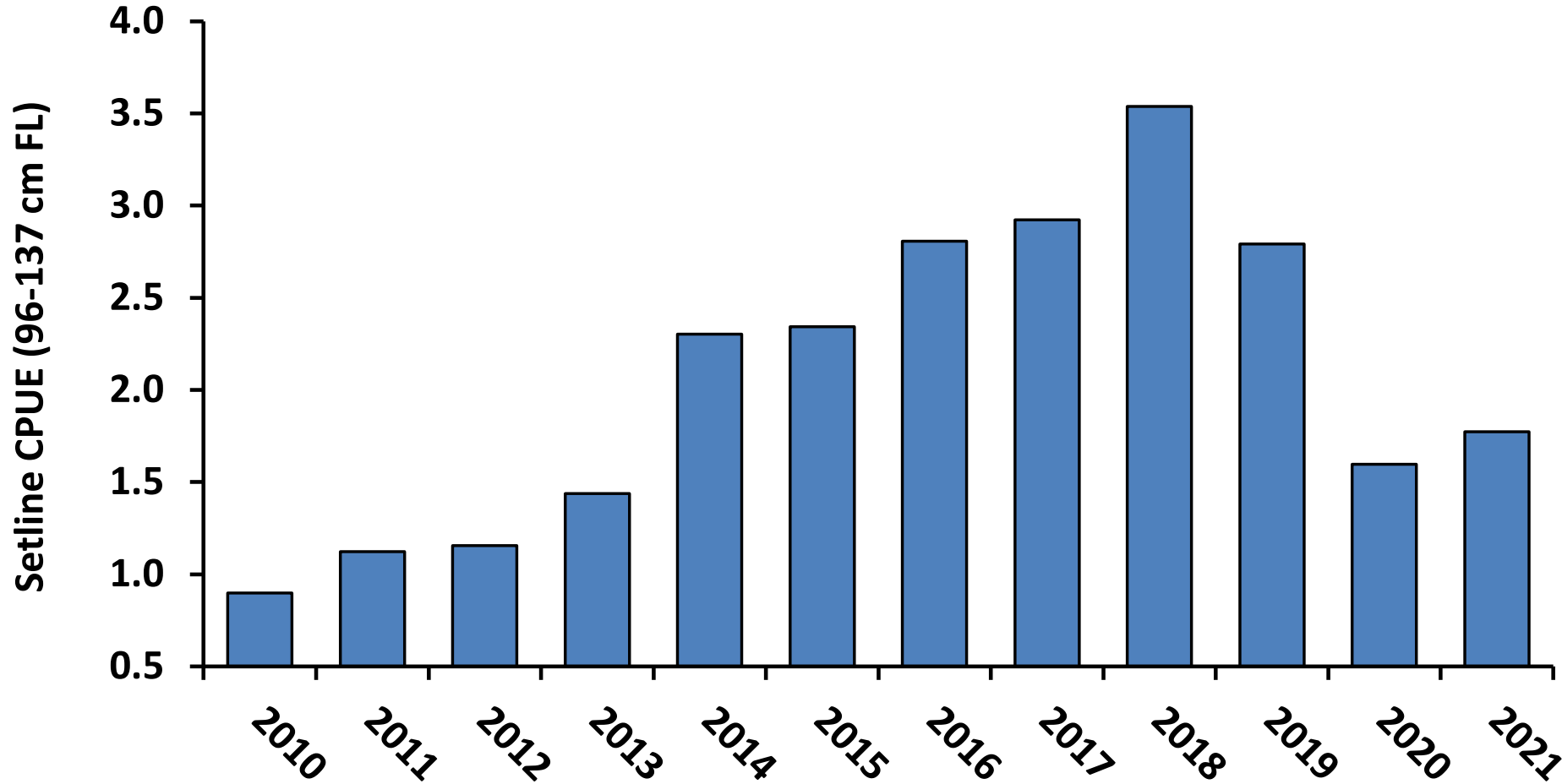
Trends in LCR White Sturgeon Abundance



Estimated Legal Abundance (38" – 54" FL)



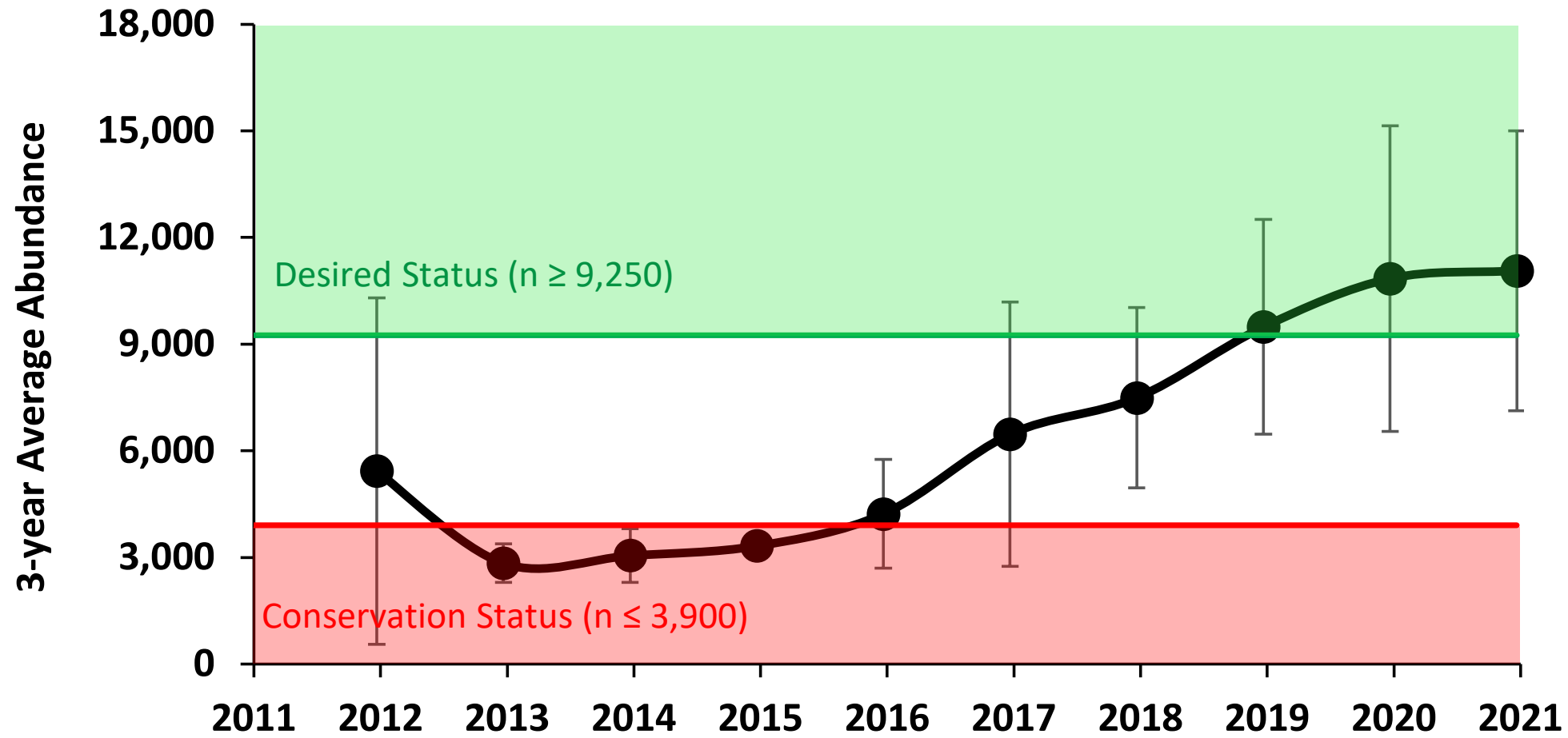
Trends in LCR Legal-Size Sturgeon CPUE



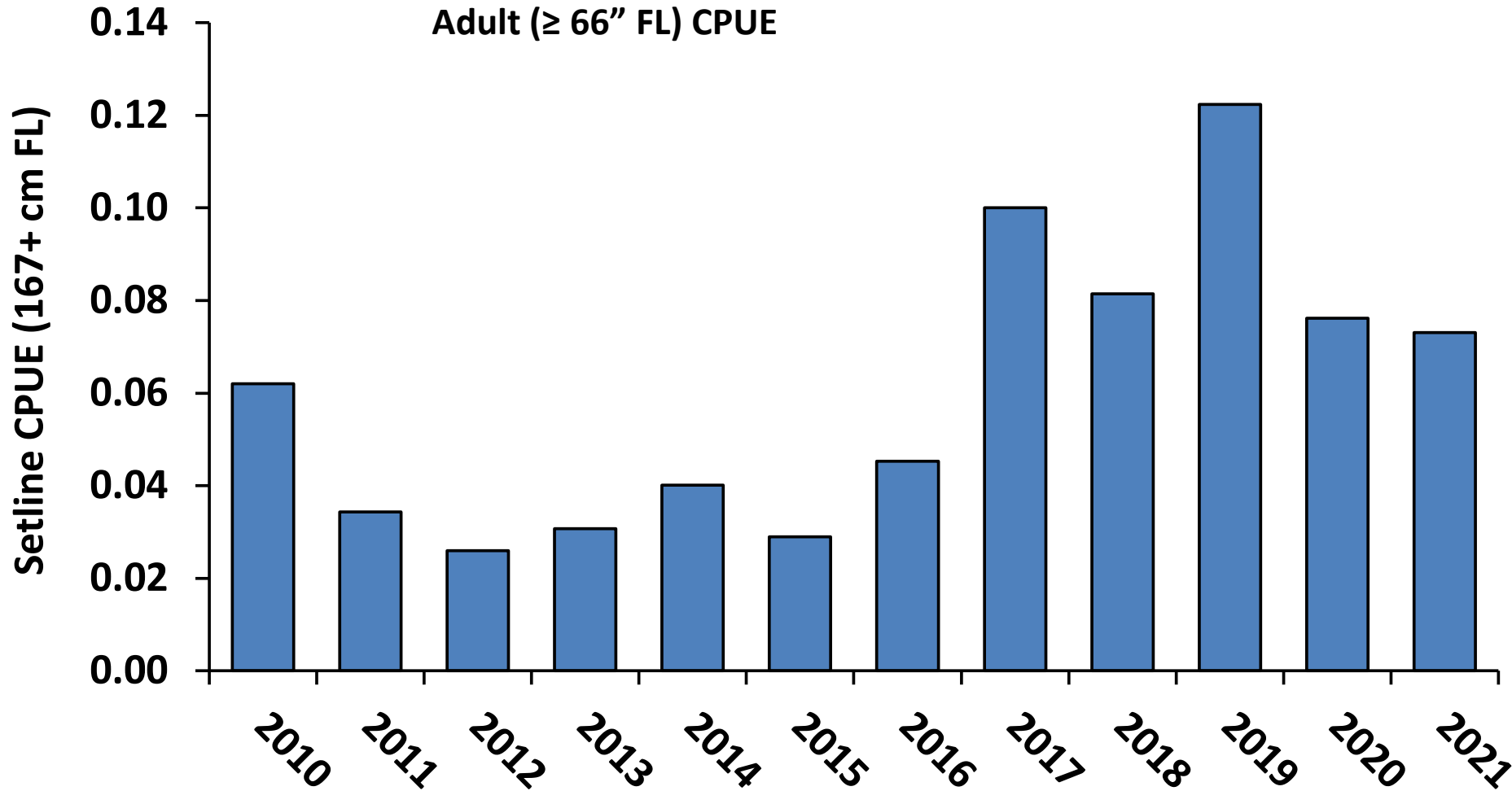
Trends in Adult Sturgeon Abundance



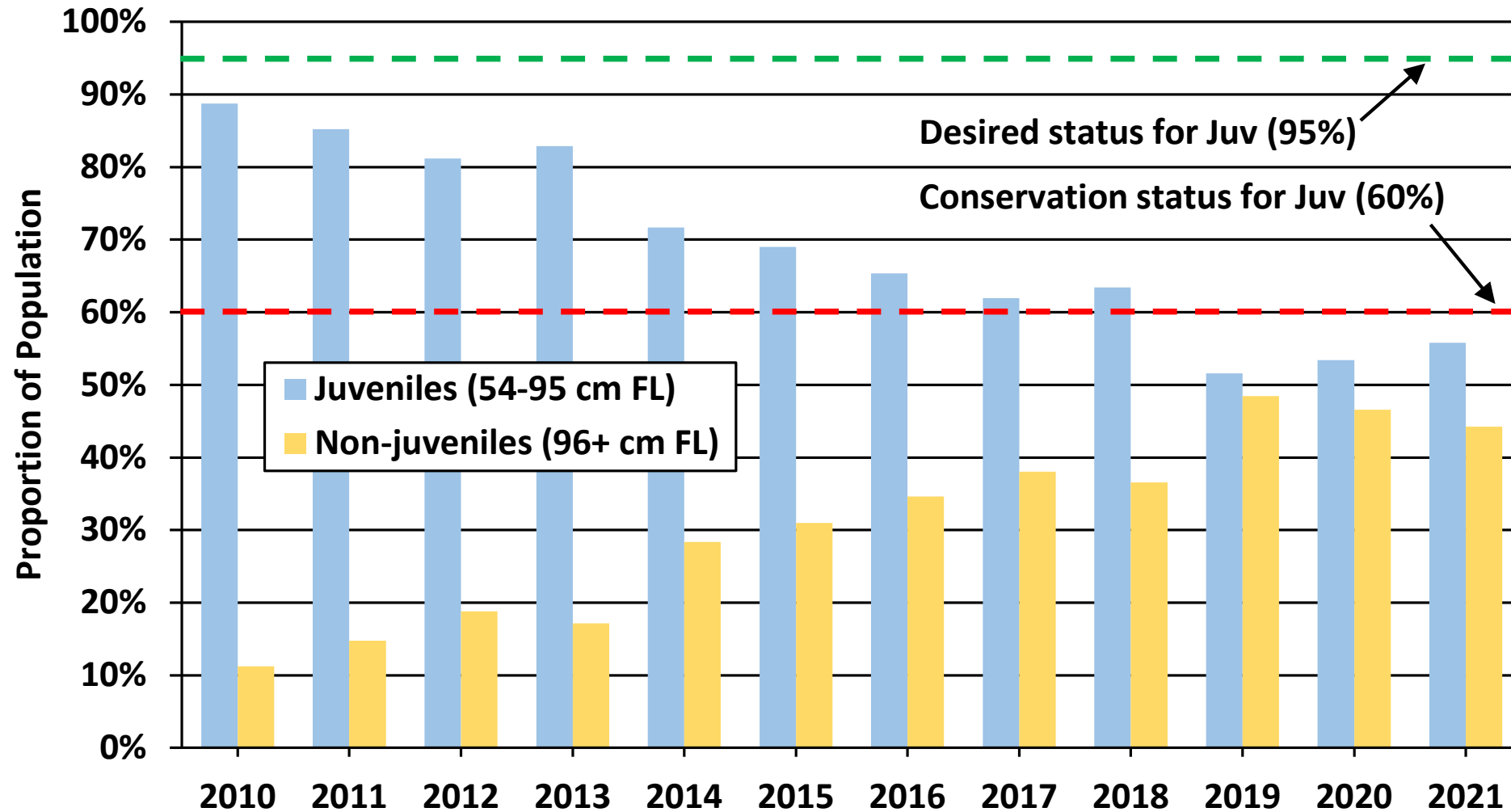
Estimated Adult Abundance (≥ 66 " FL)



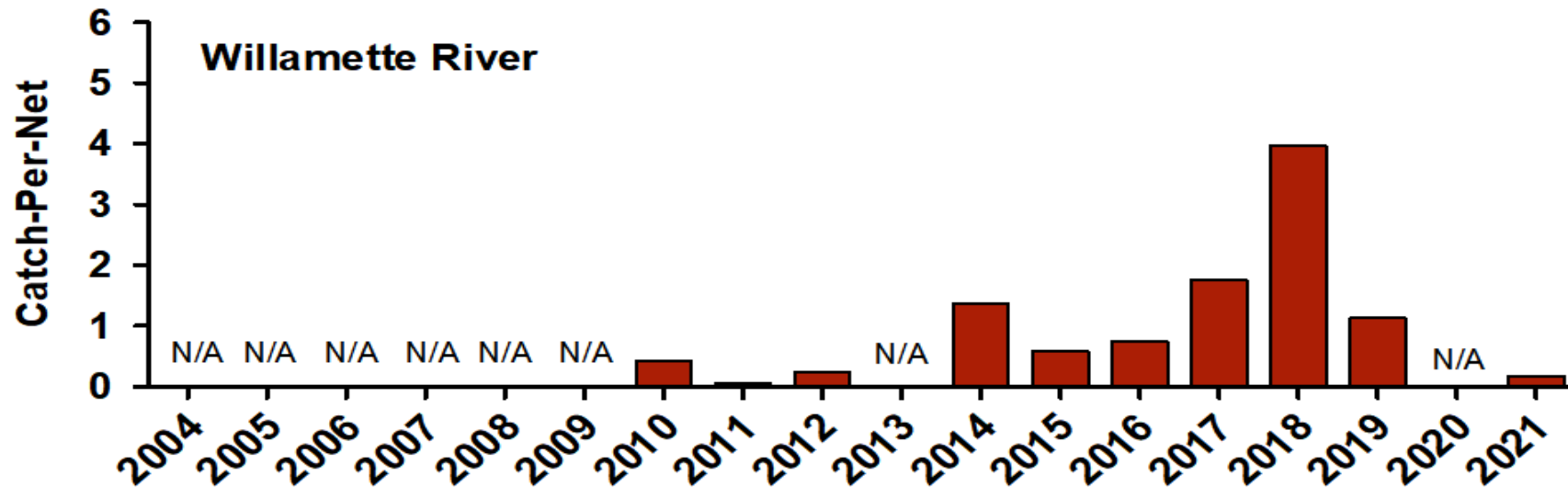
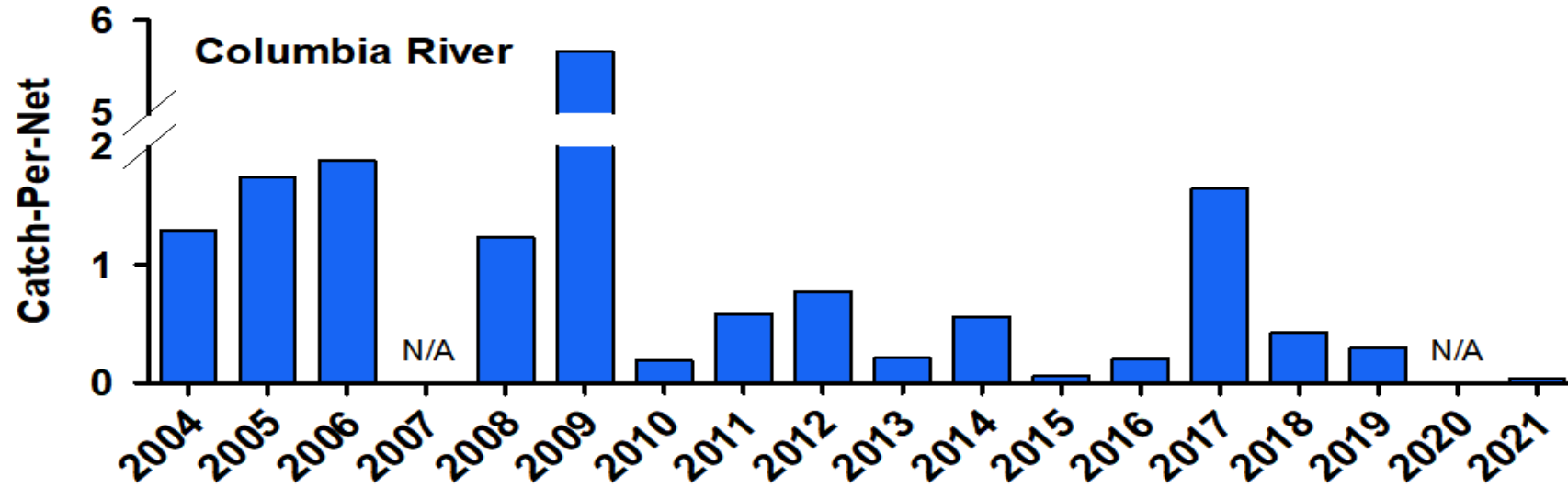
Trends in Adult Sturgeon CPUE



Trends in LCR Sturgeon Length Frequency



Trends in LCR Sturgeon Age-0 Recruitment

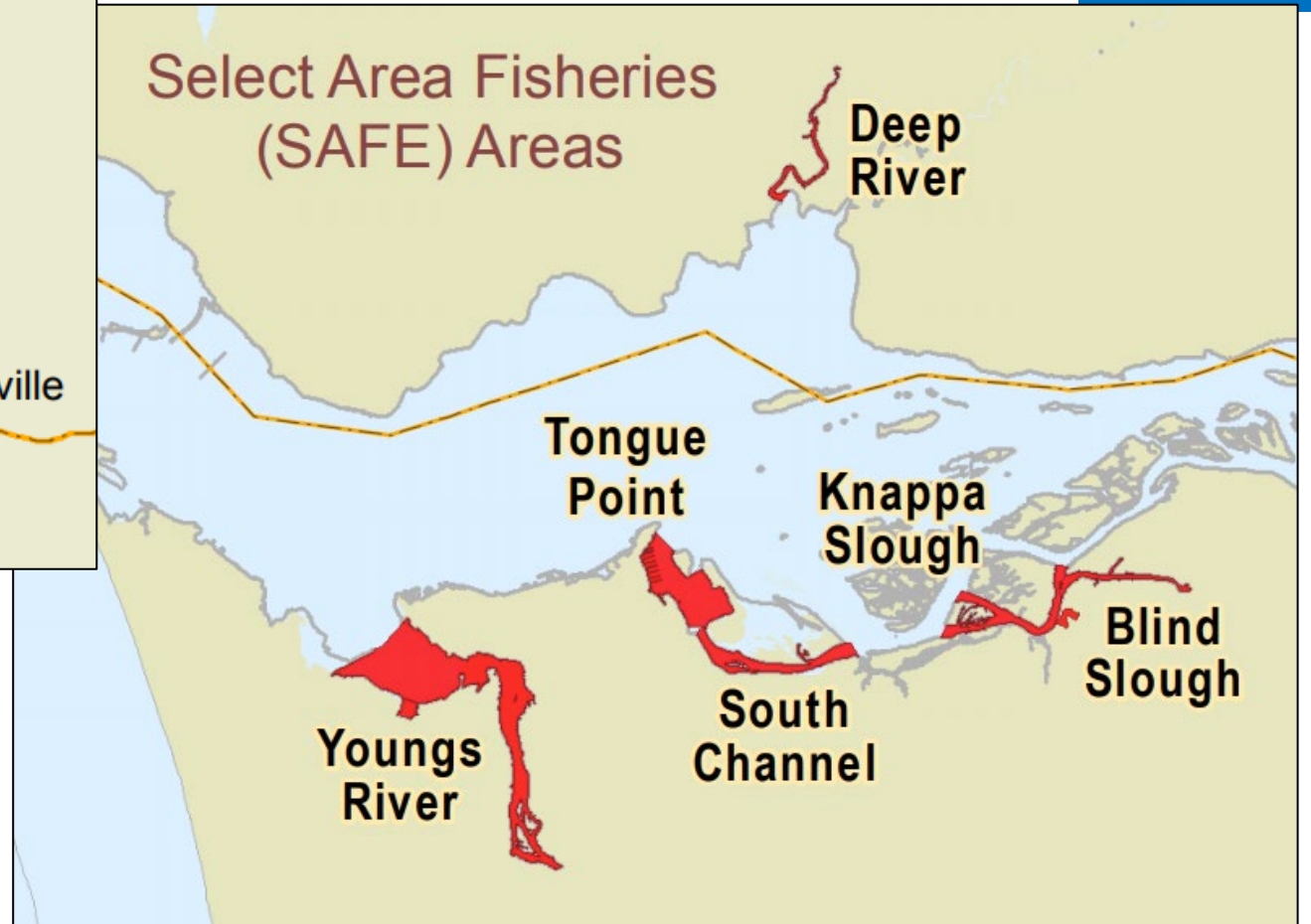


2021 LCR Sturgeon Fisheries Review



- Per CR policy, 2021 Total Catch Guideline (n=6,160) again split 80:20 sport and commercial
- Commercial guideline: 1,230 fish
- Recreational Guideline: 4,930 fish

Commercial Areas and Harvest Expectations



Pre-season harvest expectations:
Mainstem – 615 fish
SAFE Area – 615 fish

2020 Commercial Harvest



Select Area (SAFE)

- Winter: 132 fish
- Spring: 233 fish
- Summer: 63 fish
- Fall: 371 fish
- **Total:** 799 fish (67%)

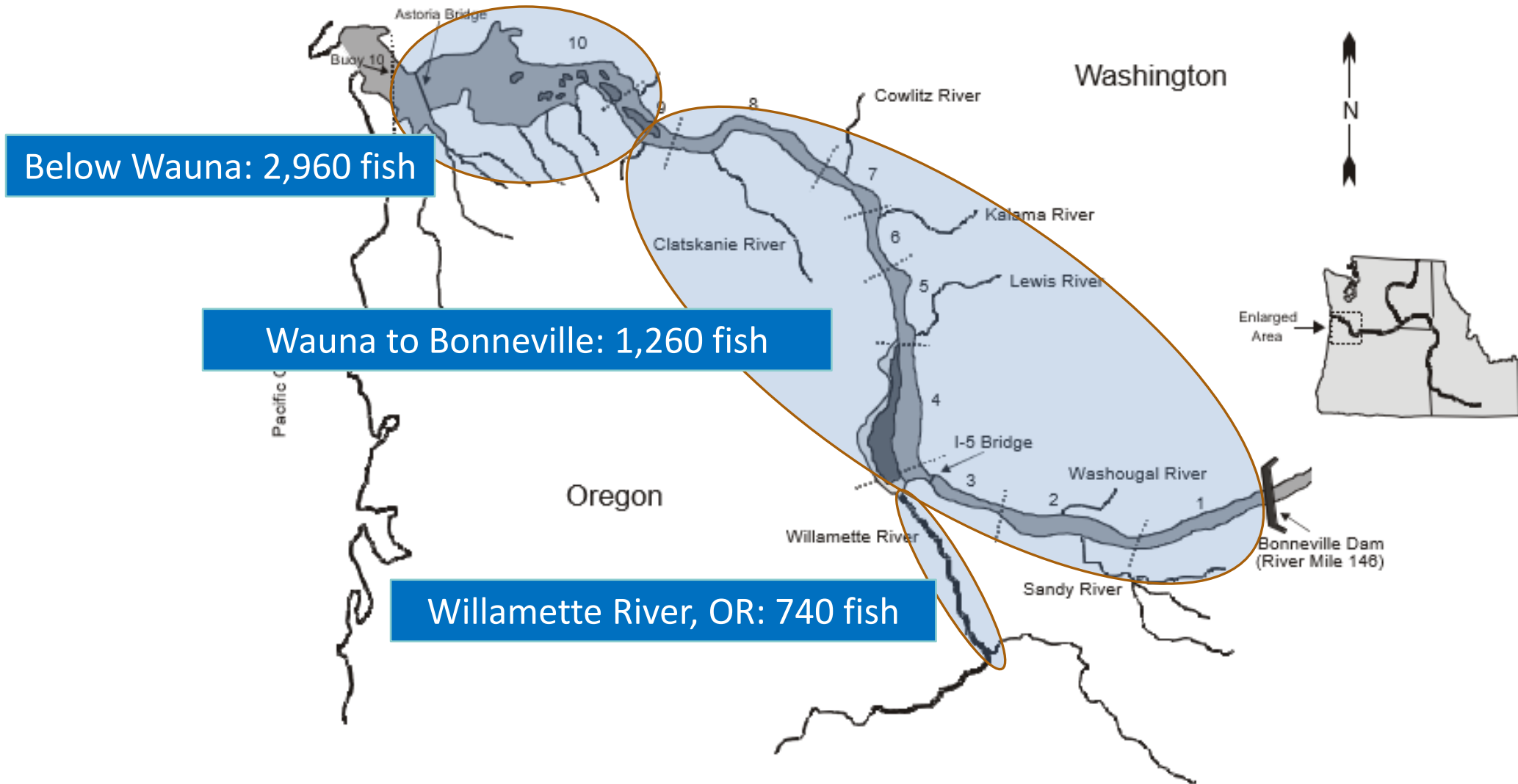
Mainstem

- Early Fall: 297 fish
- Late Fall: 98 fish
- **Total:** 395 fish (33%)

Total Harvest: 1,194 fish

97% of the 2020 commercial guideline

Sport Fishing Areas and Pre-season Plans



2020 Sport Fishing Effort and Harvest



Estuary (below Wauna)

- May 12 – Jun 12 (13 d)
- 19,368 angler trips
- **Total: 2,549 fish (86%)**

Wauna to Bonneville

- Sep 11 – 29 (6 d)
- 9,094 angler trips
- **Total: 866 fish (70%)**

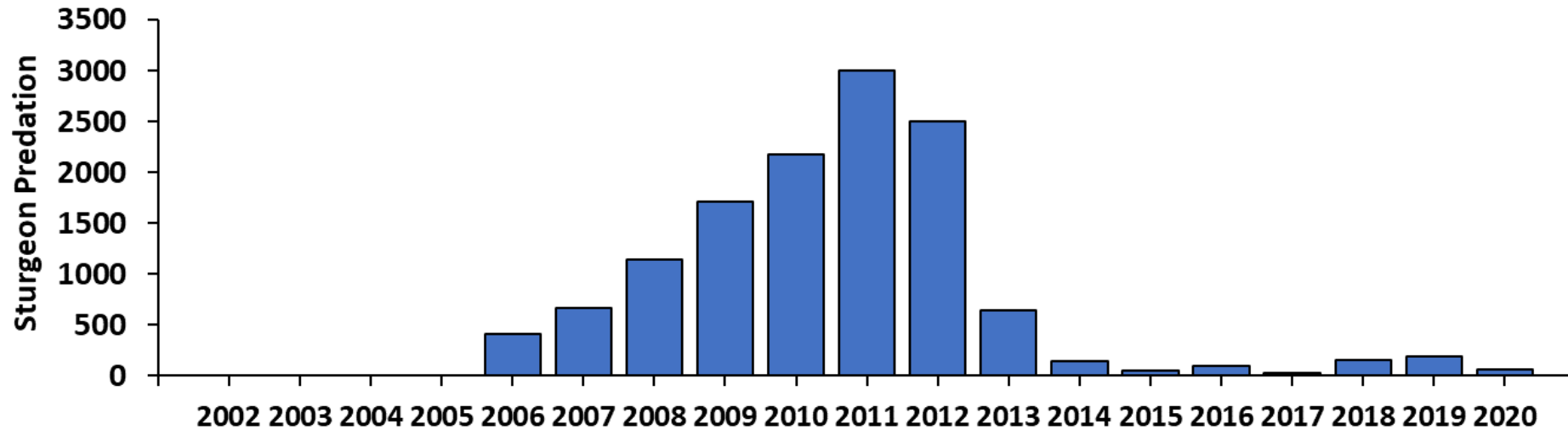
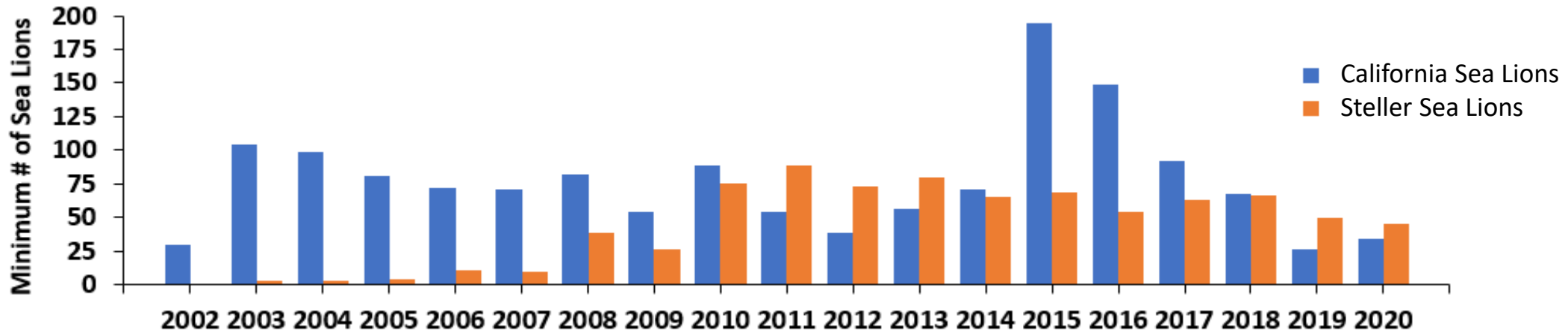
Willamette River, OR

- June 12 & 19 (2 d)
- 2,801 angler trips
- **Total: 87 fish (12%)**

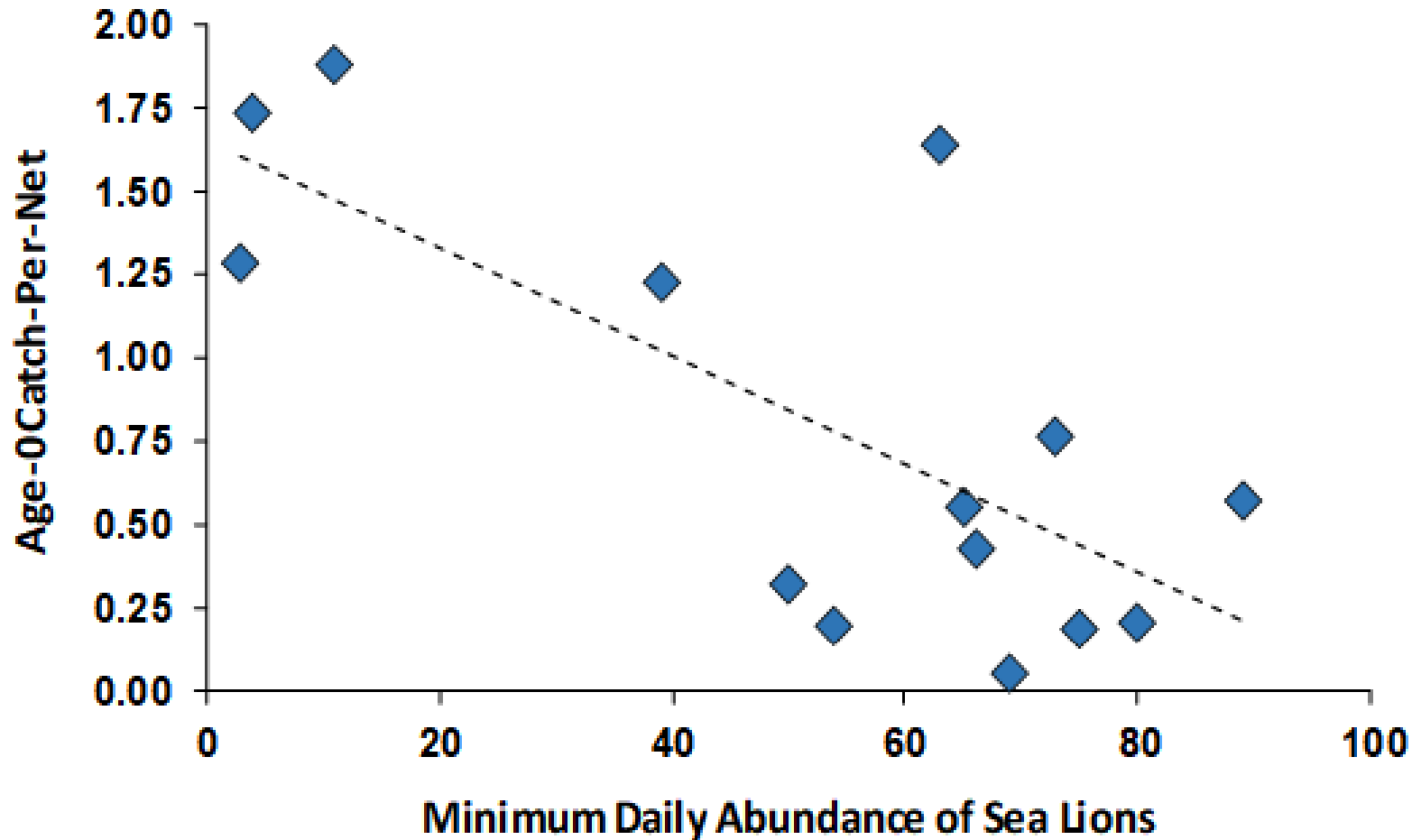
Total Harvest: 3,502 fish

- 71% of the total 2021 sport guideline
- 31,227 total trips for 2021 retention and catch-and-release fisheries

Pinniped Predation at Bonneville Dam



Pinniped Abundance vs Age-0 Catch Per Net



In 2020, NMFS approved an application allowing ODFW and partners to expand their program to manage and remove sea lions.

Pinniped Removals



Year	Steller Sea Lions			California Sea Lions		
	Columbia	Willamette	Total	Columbia	Willamette	Total
2012				13		13
2013				4		4
2014				15		15
2015				35		35
2016				59		59
2017				24		24
2018				29	4	33
2019				20	30	50
2020	6		6			
2021	37	1	38	21	8	29
Total	43	1	44	220	42	262

Willamette River Pinniped Issues



Year	Maximum daily # of SSLs	Willamette Sturgeon predation by SSL
2016-2017	4	15
2017-2018	11	194
2018-2019	10	60
2019-2020	8	60
2020-2021	3	102
2021-2022*	3	NA

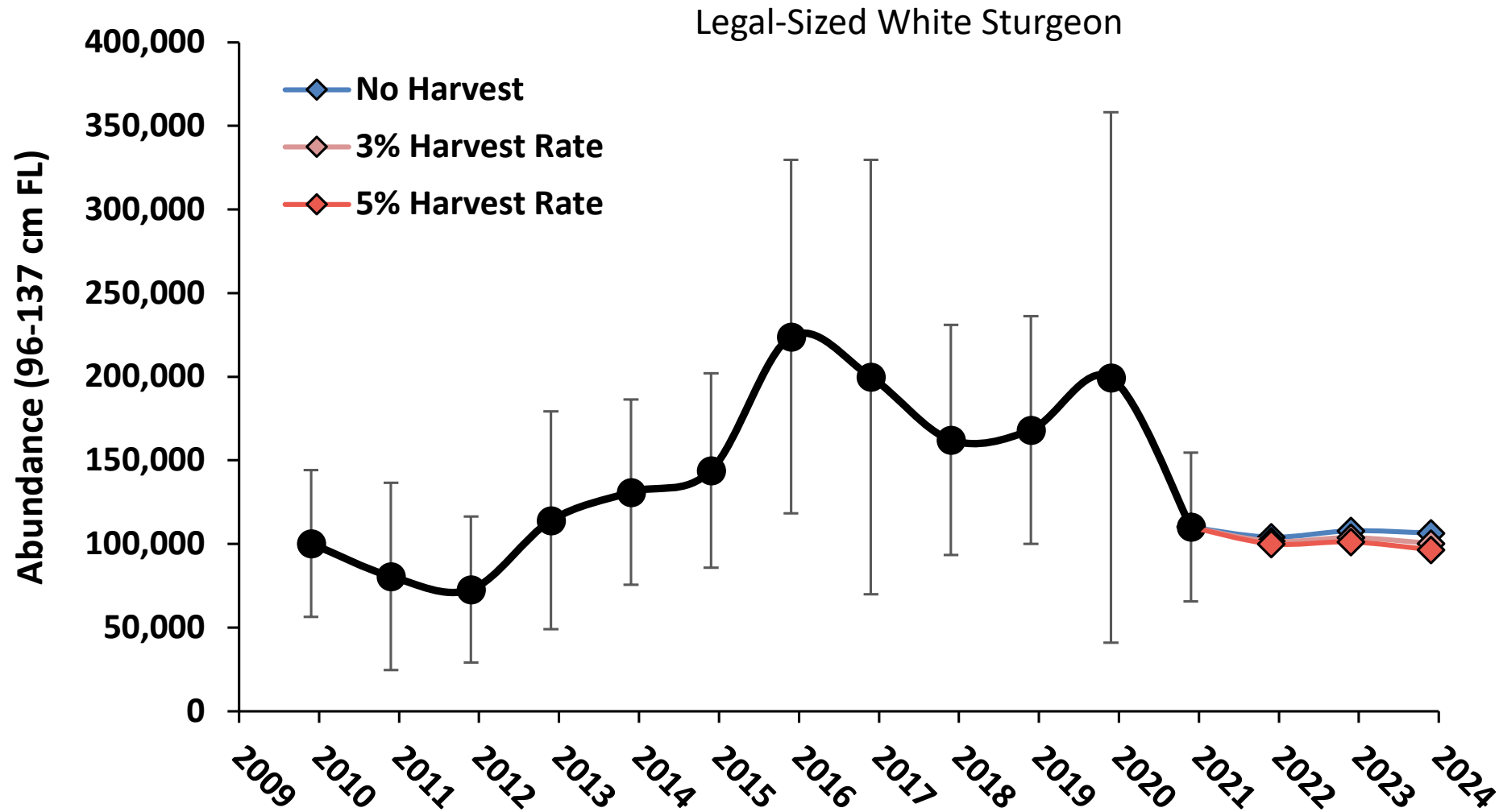
* Thru February 9

Status and Fishery Summary



Metric	N	Interpretation	Brief Summary
Legal Abundance	122,395		Abundance estimate continues pre-2020 declining trend; significantly above conservation status level.
Adult Abundance	6,769 3-yr Avg 11,064		2021 3-year average abundance estimate is above desired status level; point estimate is above conservation status.
Population Structure	~53% Juveniles		Proportional abundance of juvenile and sub-legal fish <60% (conservation status).
Recruitment Index (CPN)	LCR: 0.02 WR: 0.17		Low numbers indicate continued productivity issues; sampling restored.
Sea Lion Abundance	High		High sea lion abundance is problematic for white sturgeon populations; recent changes in SSL management.
Fisheries	36,704 (Trips)		Interest in retention fisheries remains high; season setting is challenging with low guidelines.

Projections Under Different Strategies



Conclusions



Status of lower Columbia River white sturgeon, as a whole, is far from desired status, but it is not in danger

- Substantial legal and adult abundance
- Low, but persistent, age-0 recruitment
- Population structure at conservation status level, but sturgeon life history strategy guards against periods of low productivity
- Steller sea lions are problematic, but hopefully beginning to address this
- Believe population is sufficiently robust to support limited fisheries similar to 2017 – 2021
 - It will be difficult to prosecute retention fisheries in out years if legal population continues to drop



Questions?