

# Lower Columbia River White Sturgeon Stock Status and Policy Annual Review

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# Purpose

- Annual review of Columbia River stock status and fisheries.
- New and upcoming sturgeon work statewide.
- Five-year review of the Commission Policy C-3001 “Lower Columbia Sturgeon Management.”





# Annual review of Columbia River stock status and fisheries

# Lower Columbia River White Sturgeon

Lower Columbia River sturgeon can be found throughout accessible coastal and Puget Sound waterways.

Annual population monitoring occurs in the Lower Columbia River.

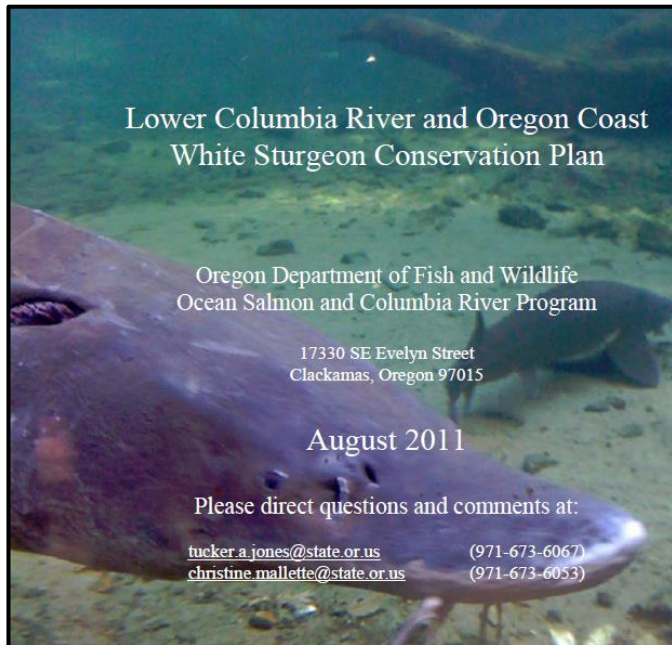


# Overview of Recent Management

- **2014:** The Lower Columbia River was closed to White Sturgeon harvest due to a decline in the population abundance.
- **2017–2022:** Monitoring data showed an improvement in the abundance estimate, and limited White Sturgeon harvest fisheries were opened, consistent with the reduced status of the population.
- **2023–2024:** The continued prolonged recruitment shortfall has reduced the abundance of legal-size fish, impacting our ability to prosecute meaningful retention fisheries, and harvest fisheries were not re-opened.



# Lower Columbia River and Oregon Coast White Sturgeon Conservation Plan

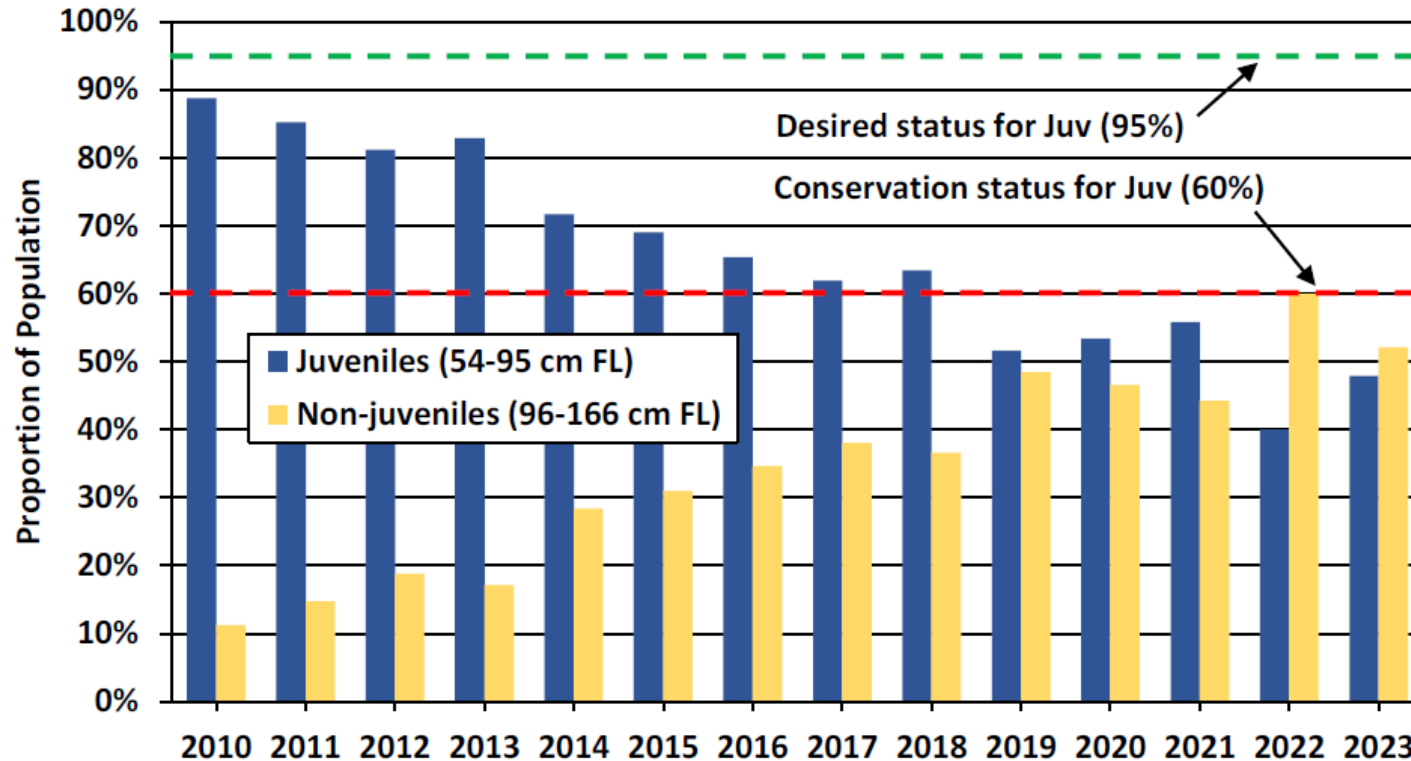


- Completed in 2011, developed by Oregon Department of Fish and Wildlife with contributions from WDFW.
- This plan includes metrics for evaluating the Lower Columbia River White Sturgeon stock assessment results (i.e., desired status vs conservation status).

**To read this plan, go to:**

[https://www.dfw.state.or.us/fish/CRP/docs/lower\\_columbia\\_sturgeon/LCR\\_white\\_sturgeon\\_conservation\\_plan.pdf](https://www.dfw.state.or.us/fish/CRP/docs/lower_columbia_sturgeon/LCR_white_sturgeon_conservation_plan.pdf)

# Population Composition



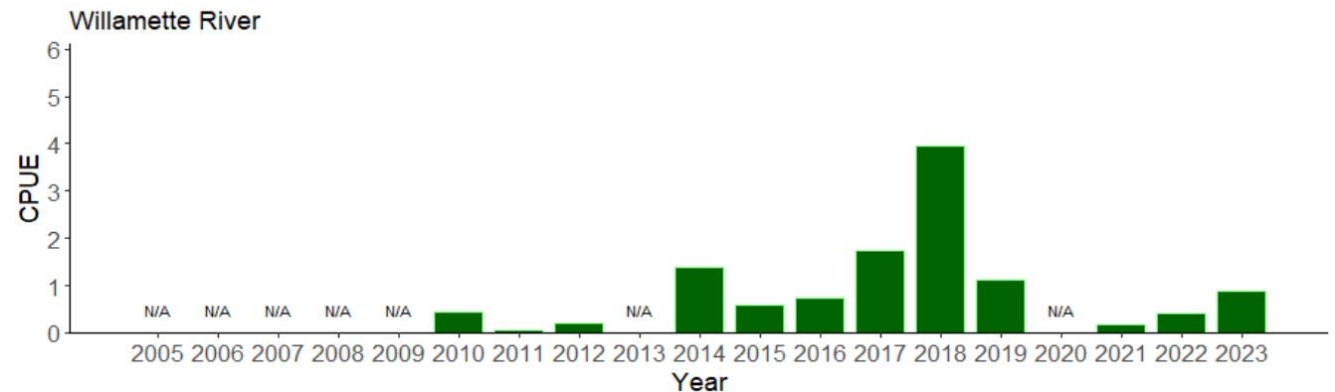
- The conservation plan calls for a population comprised of 95% juvenile fish.
- The juvenile portion of the population is declining.
- We have now documented five consecutive years below the conservation status threshold (<60% juv.).





# Age-0 Catch Per Net

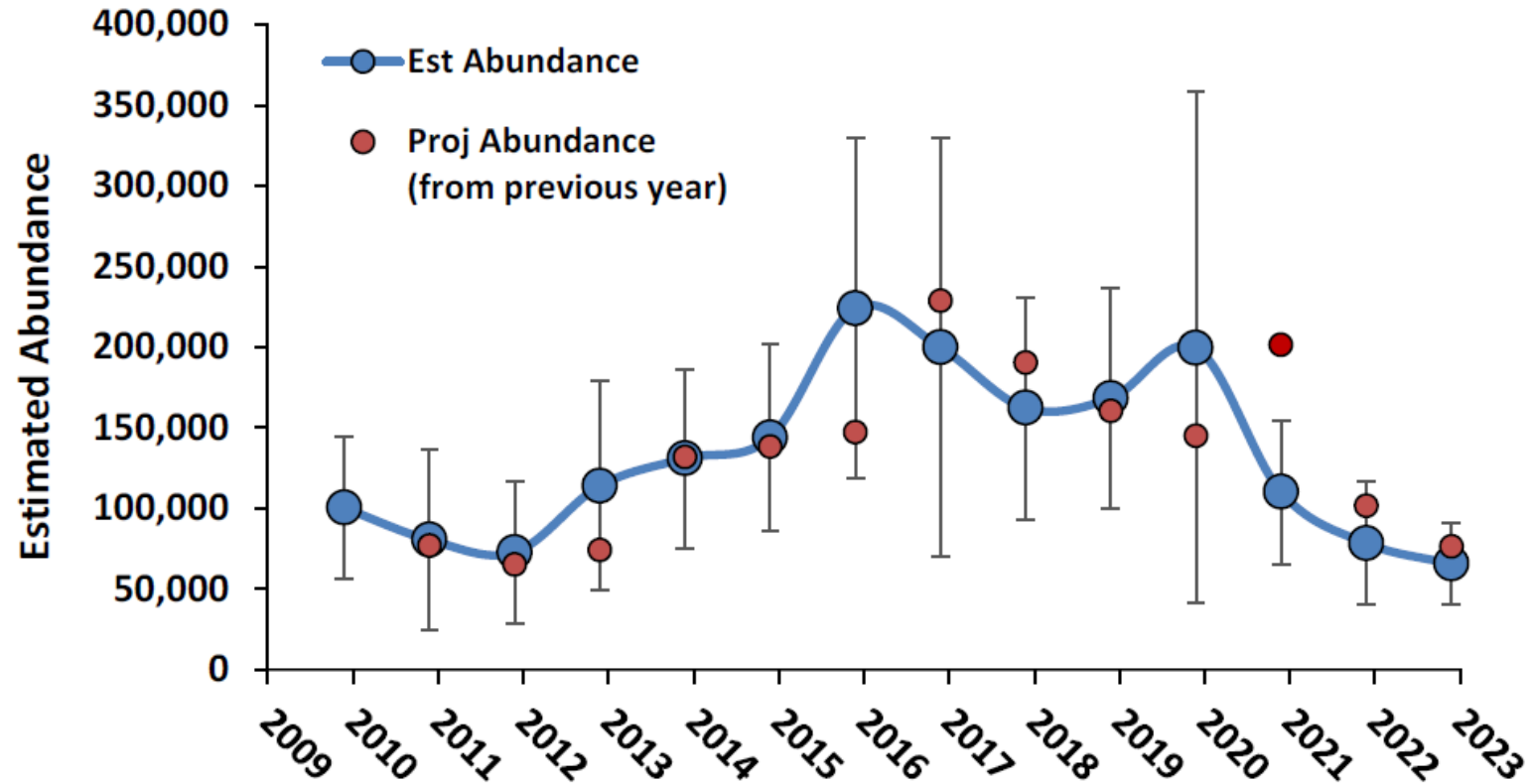
- Every year that we have looked for age-0 sturgeon, we have found them in the Lower Columbia and Willamette rivers.
- We do not have reproductive failure.
- We do have underlying productivity issues affecting recruitment and survival of the age-0 fish.
- The low catch rate is consistent with the juvenile declines observed in the setline data.





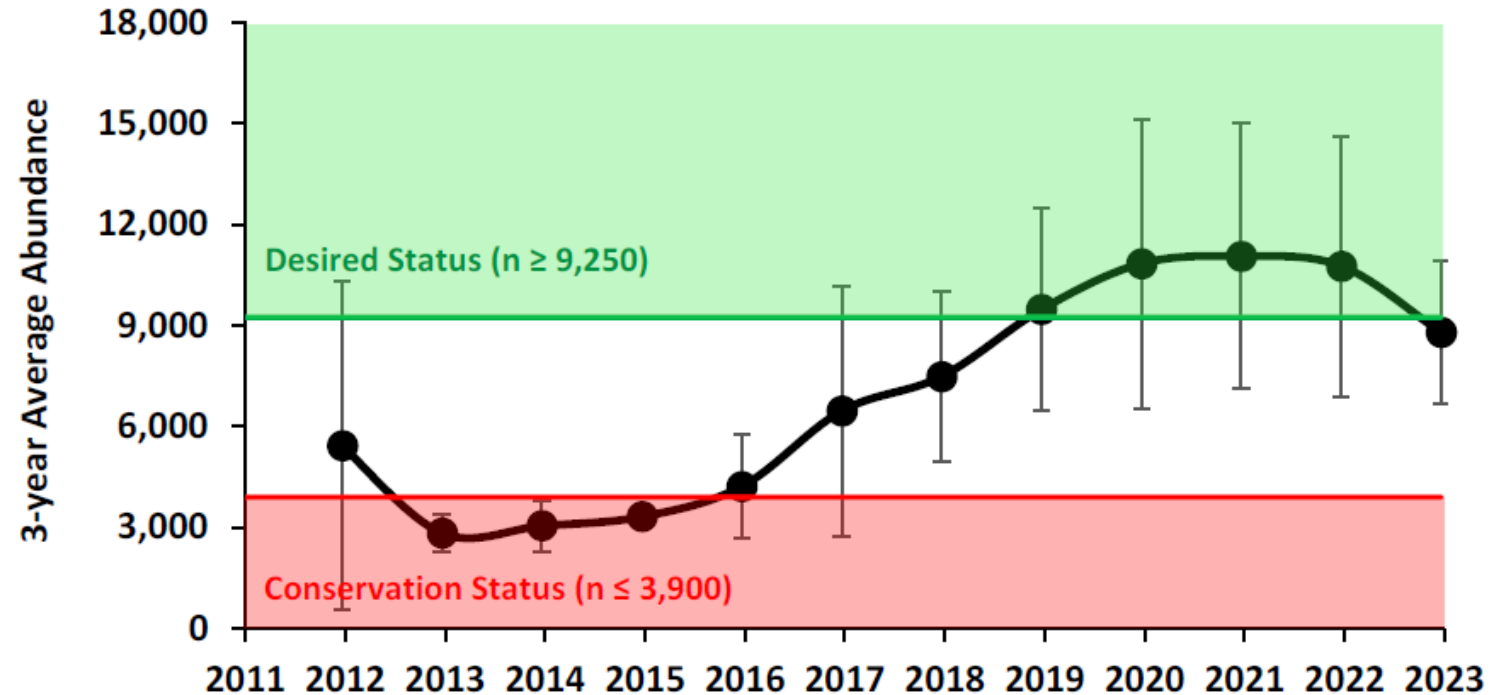
# Trends in Legal Abundance (38-54" FL)

- The decrease in juveniles has led to fewer fish available to grow into the legal-size slot, meaning fewer fish are available for harvest.
- Some years (2016, 2017, & 2020) have higher uncertainty around the estimate due to sampling limitations in those years.



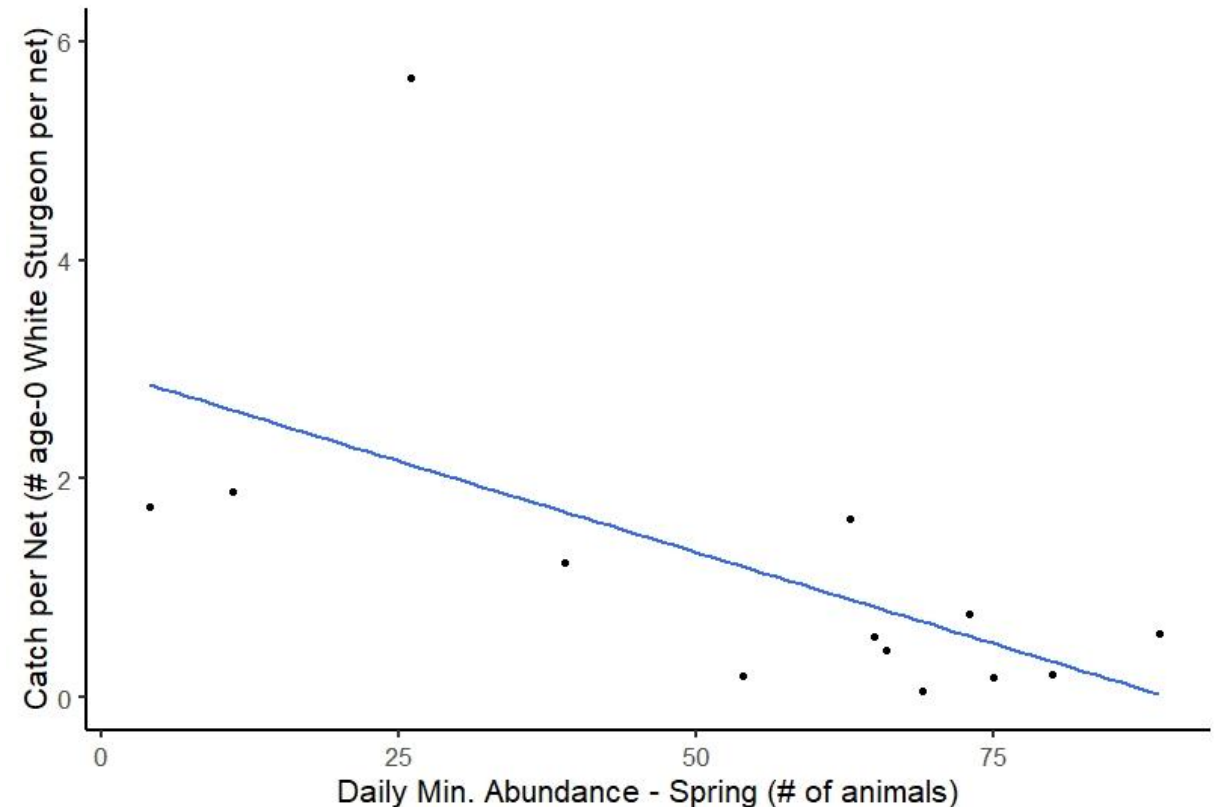
# Trends in Adult Sturgeon Abundance (>65" FL)

- There is high uncertainty around the adult sturgeon point estimates due to the difficulty in sampling this life stage.
- Changes to harvest management decisions over the past decade have resulted in an increasing trend in adult abundance.
- We are building the recruitment potential in the population.



# Pinniped Abundance vs Age-0 Catch Per Net

- Steller Sea Lions are the primary predator for White Sturgeon in the Columbia River.
- The abundance of Steller Sea Lions is a significant predictor of weak White Sturgeon recruitment.

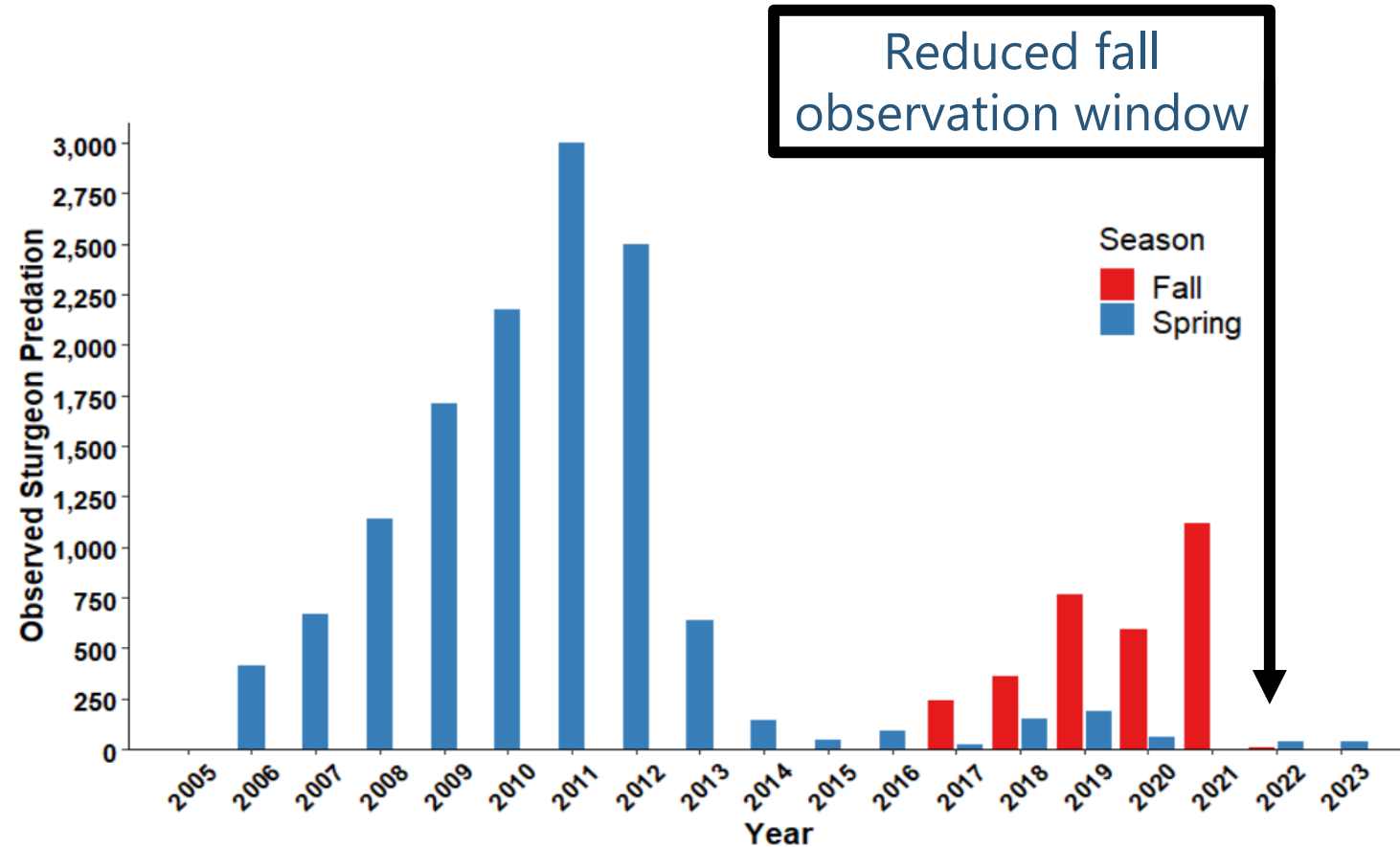


Source: Peter Stevens, ODFW 2019

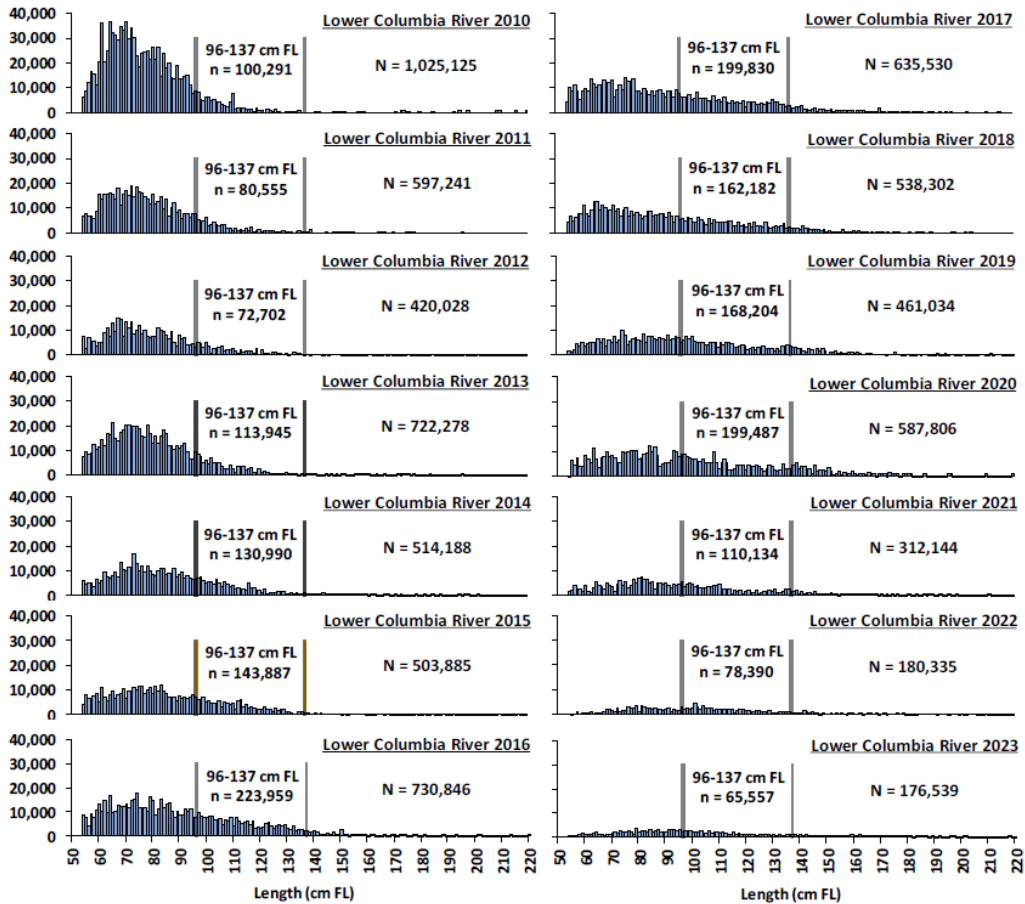


# Pinniped Predation at Bonneville Dam

- The US Army Corps of Engineers monitors sturgeon predation events in the tailrace of Bonneville Dam (Braun et al. 2024).
- Removal efforts have reduced the number present at Bonneville in the fall (J. Edwards, WDFW, pers. comm.):
  - 2019: 30–40 SSL per day in 2019
  - 2024: 3–4 SSL per day, thus far



# Population Status Summary



- Over the last decade we've documented a decline in the overall population abundance in the Lower Columbia River.
- The size-class most affected is the juvenile portion of the population, which has begun to create a decline in the legal-size portion of the population.
- Steller Sea Lions are observed directly preying upon sturgeon at Bonneville and may have a larger impact throughout the lower Columbia River.

# Public Input – Columbia River Advisors

We shared the stock status update with the Columbia River advisory groups in January, as part of our annual process.

- Sport advisors expressed conservation concerns and did not support a harvest opportunity in 2024.
- Commercial advisors agreed with assessment and recommendation for no harvest opportunity in 2024.





# 2025 Fishery Plans



To consider opening a 2025 fishery, the results of the 2024 stock assessment would need to show a significant shift in population metrics, indicative of a healthier population.

The 2024 stock assessment results will be reviewed this winter.







## **New and upcoming sturgeon work statewide**

# New: Coastal & Puget Sound Monitoring Survey

- Funded by the WA Legislature in 2023.
- Biologist hired in spring 2024 to lead project.
- Goal: To evaluate sturgeon distribution, habitat use, and natal origin outside of the Columbia River.
- Survey Questions:
  - What is the distribution of sturgeon within rivers and estuaries along the Washington Coast and in Puget Sound?
  - Are sturgeon using this habitat for feeding, rearing, or spawning?
  - What is the natal origin – do these fish originate from the Columbia River or Frasier River?



# Pending: Lower Columbia River Sturgeon Recruitment Survey



- Pursuing funding, tentative Spring 2025 start.
- Joint project with Oregon Department of Fish and Wildlife.
- Goal: To evaluate the recruitment potential and possible factors impacting embryo survival below Bonneville Dam.
- Survey Questions:
  - How many adult sturgeon (>6 ft) are found within the spawning sanctuary between May through July?
  - What are the sex ratios and stage of maturity of adults found in the spawning sanctuary?
  - Can we find fertilized eggs within the spawning sanctuary?
  - What are these adult sturgeon consuming and could this impact reproductive potential?



# New: Statewide Sturgeon Conservation Plan

## Why?

Currently there is no unifying statewide sturgeon plan, and we believe this is an important step in guiding the conservation of sturgeon in Washington.



# Statewide Sturgeon Conservation Plan



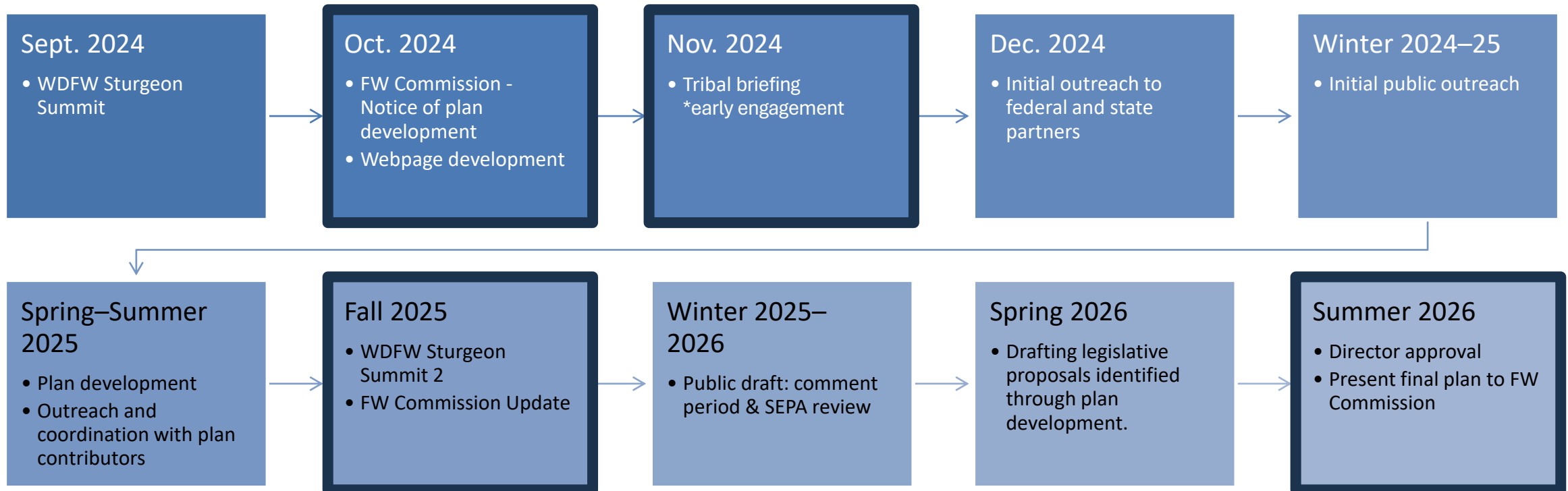
## Plan Goals:

- To engage with tribes, bordering states, federal agencies, and the public on sturgeon conservation concerns and management needs across the state of Washington.
- To work with these entities to develop consistent and transparent strategies and policies to support:
  - Mitigation and recovery efforts.
  - Sustainable harvest opportunities.
  - Research to fill critical information gaps.



# Statewide Sturgeon Conservation Plan

## Timeline for development:





# Policy C-3001 Review



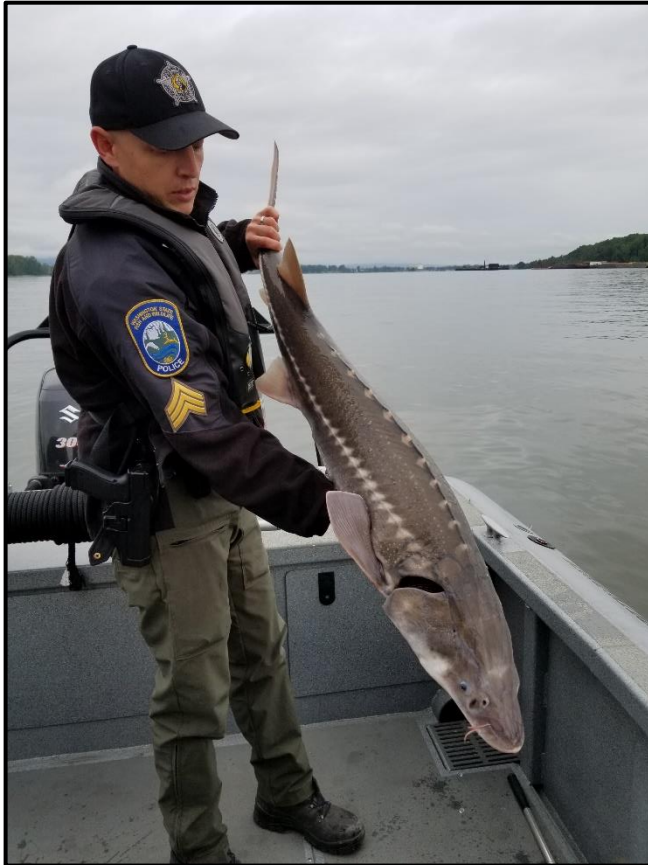
# Policy C-3001 – Review

## Lower Columbia Sturgeon Management

- Last updated: January 25, 2019
- The policy states: “The Director will provide the Commission a review of this Policy at least every five years.”



# Policy C-3001 - Overview



## **Intent:**

The intent of the policy is to provide consistent management guidelines that promote a healthy population and provide sustainable fisheries.

## **General Policy Statement**

Manage the Lower Columbia River White Sturgeon population with conservation and fishery management objectives that are consistent with a healthy population.



# Policy C-3001 - Policy Guidelines



## Conservation Objectives:

- Increase abundance of spawning population
- Manage with a precautionary approach
- Population monitoring (within available resources)

## Fishery Management Objectives:

- Provide sufficient sturgeon spawning sanctuaries or other protective measures
- Quantify impacts of commercial and recreational fisheries

## When Retention Fisheries are Allowed:

- Manage sturgeon fisheries through an agreement with Oregon
- Consider projected recruitment and mortality sources
- Monitor and manage fisheries consistent with conservation objectives



# Policy C-3001 – Review and Delegation

## **Annual review of the population status and fisheries, to include:**

- stock status;
- available information on pinniped predation;
- review of in-season management actions;
- summary of catch data, including handling of sturgeon in non-target fisheries, when available;
- recommended management changes; and
- other pertinent information.

## **Delegation of Authority:**

The Commission delegates the authority to the Director...

- to develop and negotiate Lower Columbia Sturgeon Management Accords
- to set seasons for recreational and commercial fisheries in the Columbia River
- to adopt permanent and emergency regulations to implement these fisheries



# Policy C-3001 Recommendation

- Make no changes to the policy until completion of the Statewide Sturgeon Conservation Plan (anticipated completion in summer 2026).





# Thank you!



# Questions?

