

**OREGON AND WASHINGTON DEPARTMENTS OF FISH AND WILDLIFE
JOINT STAFF REPORT - STURGEON FISHERY UPDATE
February 7, 2023**

Detailed information on stock status and management guidelines for Columbia River fisheries are presented in Joint Staff Reports, which are produced annually and available on-line. The most recent report relevant to these fisheries is the 2023 Sturgeon/Smelt Report (January 13, 2023) available at:

<https://wdfw.wa.gov/fishing/management/columbia-river/reports> or
<https://www.dfw.state.or.us/fish/OSCRP/CRM/jsmreports.asp>

STOCK STATUS

Lower Columbia River White Sturgeon

- Abundance estimates for white sturgeon in the lower Columbia River (LCR) are derived from annual mark/recapture studies. Recent abundance estimates for legal-size fish (38-54 inches fork length (FL) or 96–137 centimeters FL) declined to a low of 72,700 fish in 2012 but increased steadily through 2016, reaching a peak of 224,000 fish (Figure 1). The 2018 and 2019 abundance estimates declined to 162,200 and 168,200 respectively, indicating growth of this population segment may have peaked in 2016–2017. The 2020 estimate of 199,500 legal-size fish is likely inflated due to reduced tag recovery efforts because of the COVID-19 pandemic, resulting in a less precise abundance estimate than usual. In 2021 and 2022, the legal-size abundance estimates showed a continued decline to 110,100 and 78,400, respectively (Figure 1). These results were consistent with ongoing low catch rates in the setline and gillnet sampling events.

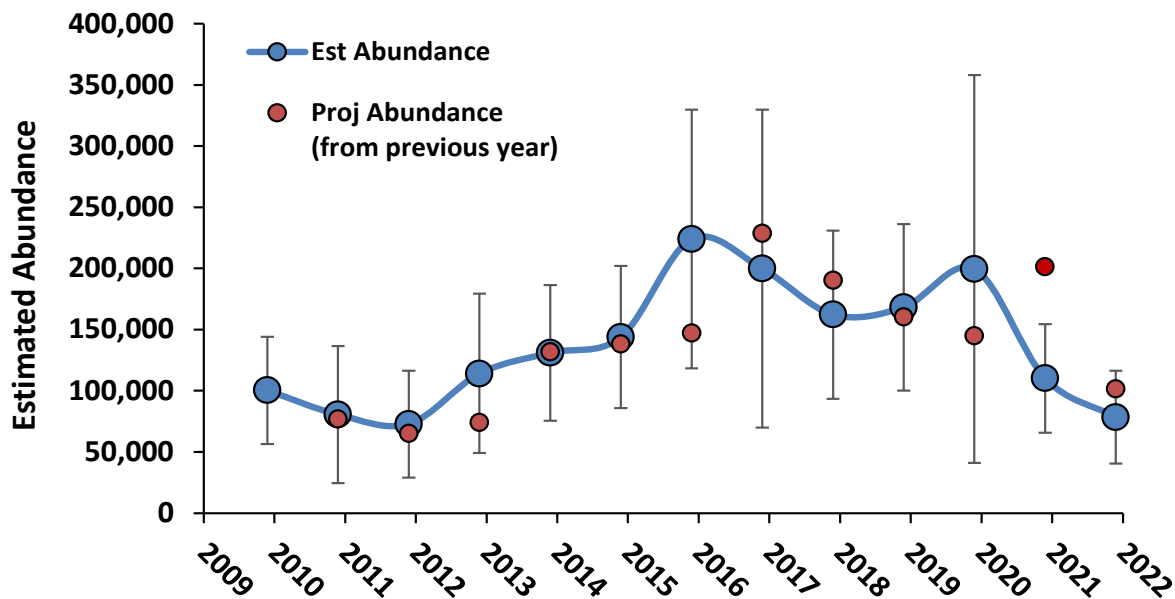


Figure 1. Estimated and projected abundance for 96–137 cm FL White Sturgeon from the LCR, 2010 – 2022. Error bars represent 95% CIs for the estimated abundance.

- Due to the low survival and recruitment of juvenile sturgeon (54–95 cm FL) over the past decade, the proportion of the population comprised of juvenile fish has continued to decline below the conservation status threshold (60% juveniles) for the fourth consecutive year (52% in 2019, 53% in 2020, 56% in 2021, and 40% in 2022; Figure 2).

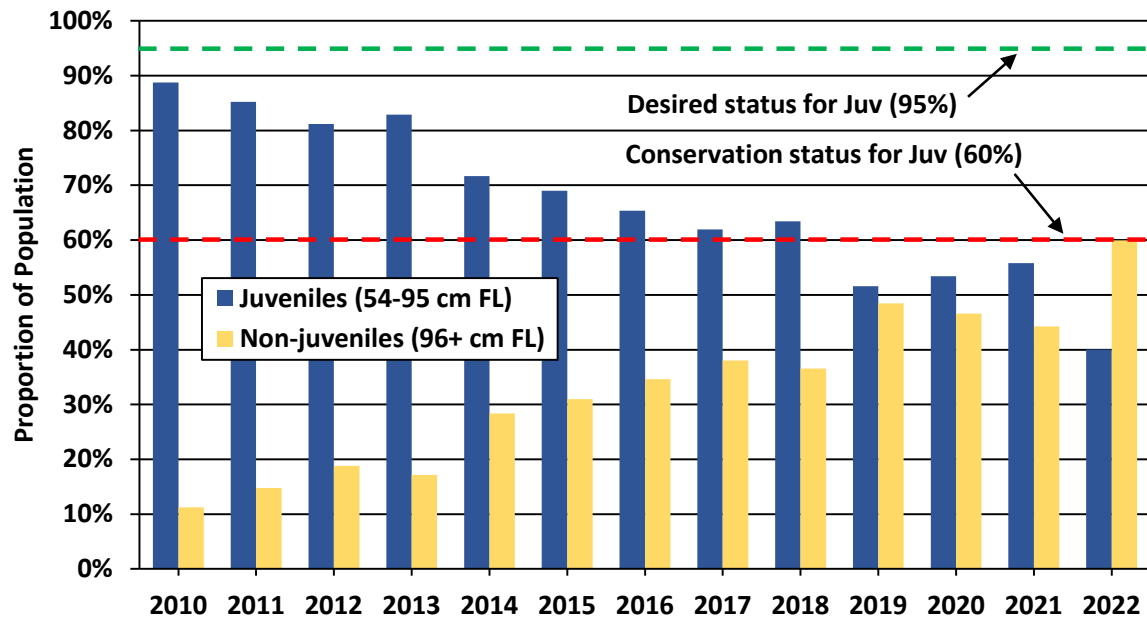


Figure 2. Lower Columbia River White Sturgeon population composition, 2010 – 2022.

- For anglers, a low juvenile abundance means fewer fish are available to grow into the legal-size range and directly impacts the legal-size abundance. This has resulted in fewer available fish available for harvest.
- Conversely, the 2012–2022 running average of adult-sized fish (≥ 167 cm FL) is 10,771 fish, which exceeds the desired status threshold of 9,250 adult fish identified in the Oregon White Sturgeon Conservation Plan (Figure 3). This data indicates that a sufficient recruitment potential is available within the population to rebuild the shortfall in juvenile abundance. However, ongoing issues within the ecosystem continue to constrain recruitment and limit Age-0 fish survival.

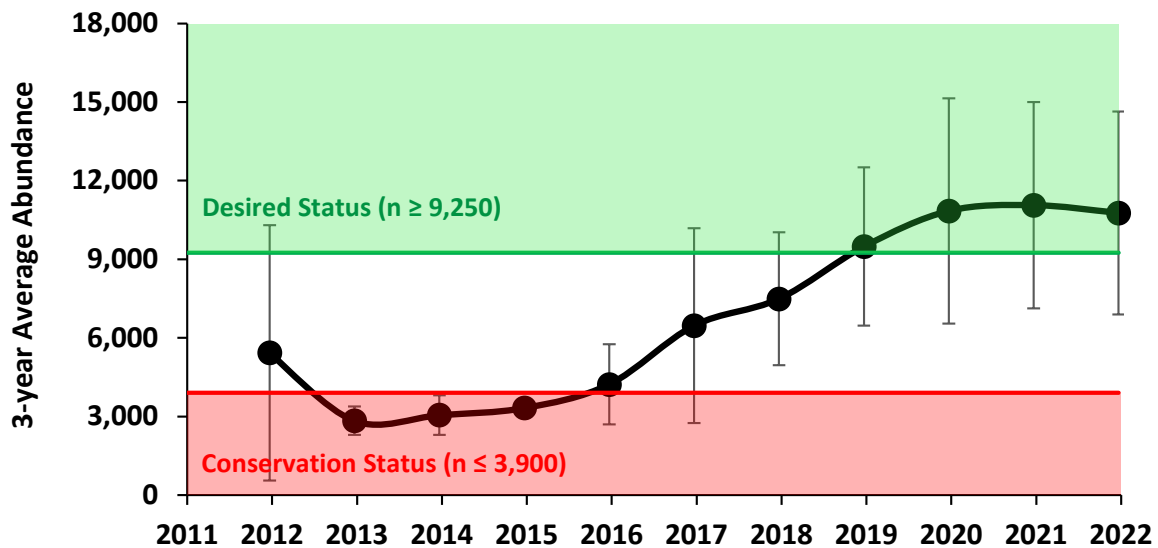


Figure 3. Three-year running average estimated abundance for White Sturgeon ≥ 167 cm FL from the LCR, 2012 – 2022. Less than three years of data were available prior to 2012, therefore no averages were calculated. Error bars represent one standard deviation.

- Since 2010, the overall population abundance estimate has decreased, driven by the decline in the juvenile portion of the population. However, the abundance of non-juvenile fish (96 cm and larger) has remained relatively stable, with estimates ranging from around 123,000 fish in 2010 to 108,000 fish in 2022. In 2010, the estimated total population abundance was estimated at just over 1,025,000 fish, of which more than 900,000 (88%) were juveniles. In 2022, the total abundance declined to a little over 180,000 fish, of which only about 72,100 fish (40%) were juveniles.

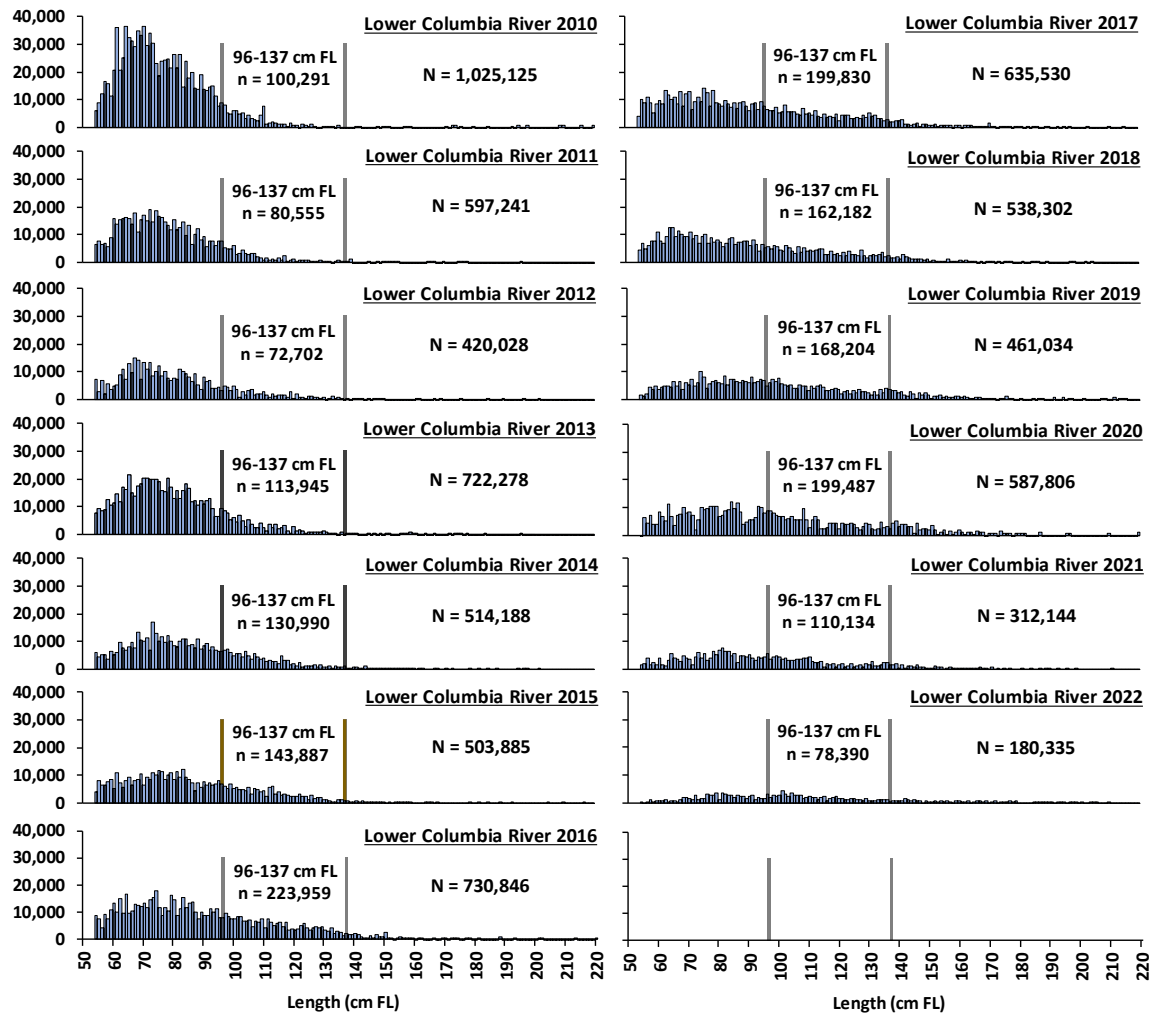


Figure 4. Estimated abundance by 1-cm length increments of White Sturgeon ≥ 54 cm FL from the LCR, 2010 – 2022.

MANAGEMENT GUIDELINES

- For years when white sturgeon retention is allowed downstream of Bonneville Dam, current Commission guidance on white sturgeon management includes:
 - Assign 80% of the white sturgeon available for harvest to recreational fisheries and 20% to commercial fisheries.
 - Oregon Commission guidance requires that a 10% conservation buffer be applied if the maximum harvest rate (16%) identified in WSCP is utilized.
 - Washington Commission guidance requires the fishery be managed with a precautionary approach due to uncertainties in population parameters.

2023 NON-TREATY FISHERIES

- Earlier this year, staff provided updates on the LCR white sturgeon status to the Columbia River Fishery Advisor groups. Advisors expressed some conservation concerns about population metrics. Additionally, advisors expressed concerns about a lack of meaningful fishing opportunities.
- While data supports the conclusion that the population could support limited harvest, it has become difficult to prosecute retention fisheries with meaningful harvest opportunity within the legal-size abundance. Therefore, joint state staff will not be recommending retention of white sturgeon for either commercial or recreational fisheries downstream of Bonneville Dam in 2023.
- Permanent regulations allow for recreational catch-and-release sturgeon angling all year, except angling for sturgeon is prohibited May 1 through August 31 within the sanctuary areas designated below Bonneville Dam and Willamette Falls.