

NEEF Report - NWSCC- April 2025 to March 2026



This marked the thirteenth year of operations at the Nechako White Sturgeon Conservation Centre (NWSCC), building on over a decade of successful work. It was a productive year, with key activities including broodstock capture and adult sampling, spawning and spawn monitoring, aquaculture rearing of juvenile white sturgeon, and juvenile indexing—all aimed at supporting the recovery of Nechako white sturgeon within the Nechako Watershed.

The year also featured strong collaboration with projects led by the Nechako White Sturgeon Recovery Initiative (NWSRI) Technical Working Group (TWG), including efforts focused on habitat restoration, habitat use, and thermal tolerance research.

Brood Capture Program

Brood capture and adult sampling was conducted from April 14 to May 16, totaling 27 days of field effort. Two primary techniques were used during this period: angling from April 14 to 29, and set lining from April 28 to May 16. A total of 87 capture events resulted in 79 individual sturgeon captured, including 8 seasonal recaptures. Of these, 16 were females and 30 were males, while 11 adults were of unknown sex and 30 were juveniles. Fourteen of the 87 sturgeon captured were new individuals.

Additionally, 6 females and 10 males were collected for spawning and transported back to the NWSCC.

A total of 24 radio tags operating on frequency 148.740 were implanted in adult fish.

Spawning

All spawning activities occurred on a single day during the reporting period. The spawning event took place on May 21, 2025, and involved 5 females crossed with 8 males, resulting in 40 basic familial crosses. The program also provided research support to the Nechako White Sturgeon Recovery Initiative (NWSRI), including the provision of eggs and milt to CSTC for fertilized egg placement, as well as eggs, milt, ovarian fluid, and DNA samples to UBC. In addition, larvae were

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supplied to UBC to support research on early developmental morphology of sturgeon skin and gills.

All sturgeon were released after spawning 3km downstream of the main spawning area near Vanderhoof, BC.

Spawn Monitoring Program

The NWSCC team participated in the 2025 Adult Spawn Monitoring Program from May 14 to June 9, 2025. During this period, staff collaborated with the Carrier Sekani Tribal Council (CSTC) and collectively collected 103 eggs, which were transported to the NWSCC hatchery for incubation. All eggs were collected between May 26 and June 9, 2025. These field-collected eggs are incorporated into the program to enhance genetic diversity. Of the 103 eggs collected, approximately 20 were viable, and 11 were successfully reared to the juvenile stage.

“D” ring frames with collection nets were procured and assembled for deployment in 2026. Although this method requires increased effort and oversight, it has the potential to improve egg collection efficiency and yield in future monitoring years.

Inventory

During this reporting period the NWSCC had three-year classes at the hatchery.

1. Brood Year 2023:
 - a. 300 were released in June 2025 at an average size of 2.81 Kgs and 71.1cm.
 - i. 85 juveniles were of “wild collected as egg” origin, and 215 were hatchery crosses.
 - ii. All were PIT Tagged, 70 radio tagged.
 - iii. Five release sites in total; 3 Nechako River sites, and 2 Fraser Lake sites.
2. Brood Year 2024:
 - a. 30 released in June 2025 at an average size of 752g and 49.3cm.
 - i. All PIT Tagged, All radio tagged.
 - ii. All hatchery crosses.
 - iii. 3 Nechako River release sites.
 - b. 300 for release in June 2026.
 - i. Reared during this period from approximately 10 months old to 22 months old. Approximately 13% are from “wild collected as egg” origin.
3. Brood Year 2025:
 - a. 300 for release in 2027. Spawning during this period, incubated, hatched, and reared for approximately 10 months. This group is growing well and is on target to meet release size goals. Approximately 4% are from “wild collected as egg” origin.

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Juvenile Indexing Program

From July 17 to August 24, 2025, the NWSCC participated in the juvenile indexing program led by the NWSRI, in collaboration with the Carrier Sekani Tribal Council (CSTC) and Lheidli T'enneh First Nation. Additional support was provided through the Rio Tinto Student Work Experience Program. Sampling efforts were confined to the Nechako River, as water temperatures in Fraser Lake and the Stuart River exceeded thresholds for safe sampling.

A total of 37 unique juvenile sturgeon were captured. Of these, 18 were of hatchery origin (wild parents), 5 were hatchery-origin fish derived from wild-collected eggs, 13 were classified as wild/experimental origin, and 1 was identified as a wild/experimental subadult. All individuals were processed at the capture location, with biological measurements and samples collected, and were subsequently released at their point of capture. Detailed biological data, including tag information and measurements, were submitted to the Nechako White Sturgeon Database managed by the Province of British Columbia. These results indicate a moderate level of juvenile survival attributable to the Conservation Fish Culture Program at NWSCC.

Capital Projects

We had two capital purchases this year:

1. SCADA Computer replaced and programmed by Technical Systems Inc. This computer is an interface to the PLC which operates all electrical equipment in the facility.
2. A Lotek wireless radio tag receiver was purchased. This unit has a logging feature that also incorporates gps location. This allows staff to cover much more area and acquire more meaningful data to support white sturgeon research and monitoring efforts.