OUTREACH PROGRAMS

There are many partners that helped make these projects happen this year, including Carrier Sekani Tribal Council, School District 91, Lheidli Tenneh Nation, Spruce City Wildlife Association, the District of Vanderhoof and many more.

- Annual Release Event: The NWSRI was very happy to be able to host the Sturgeon Release Event, which was held on June 3, 2022 at Riverside Park in Vanderhoof, for the first time since 2019. Over 800 students, teachers, partners and volunteers released 73 juvenile sturgeon and 1000 Chinook salmon fry at the event, plus learned about the watershed, biology, and more!
- Curriculum: Updated for the next school year is the school sturgeon calendar. Teachers and students were surveyed to see what new components they'd like to see created for years to come some great new ideas are brewing!
- Interpretive Signs: Two new signs at the Spruce City Wildlife Association salmon hatchery in Prince George, and a new sign for the Vanderhoof Museum site. Great ways to learn!
- **Storm Drains:** Again this year, students from Vanderhoof and Fort St. James painted over 50 storm drains in the two towns great work!
- Boat Kit Program: Salmon returned to the Nechako watershed in 2022, and with it, the Boat Kit Program was used to release 8 of 9 sturgeon caught in salmon gill nets safely. Over the 11 years of the Boat Kit Program 90% of sturgeon have been rleased live - a huge success!



LEFT: Tank of juvenile sturgeon for the release event in 2022, and LEFT BELOW a class releasing their sturgeon. BELOW: Painted salmon and sturgeon shapes at a storm drain in Vanderhoof

RIGHT MIDDLE: A sturgeon caught and then released as part of the Emergency Boat Kit Program in Stuart
Lake (Photo courtesy Peter Erickson).



Nechako White Sturgeon Recovery Initiative Year in Review

For more information about the Nechako White Sturgeon Recovery Initiative or to book a tour inside the hatchery please contact us:

> info@nechakowhitesturgeon.org www.nechakowhitesturgeon.org

Follow us on Facebook @NWSRI Find our video series on Youtube.







The Nechako White Sturgeon Recovery Initiative would like to thank all our partners and supporters that have contributed to recovery initiatives in 2022-2023. In particular, we would like to the Province of BC, Freshwater Fisheries Society of BC, and Fisheries and Oceans Canada.







Pêches et Océans Cenada

ABOUT THE NWSRI

The Technical Working Group conducts research and provides strategies for the recovery of Nechako White Sturgeon. The Community Working Group works to increase the awareness of Nechako White Sturgeon through outreach and education.

This brochure provides a brief overview of the work done by the Working Groups of the Nechako White Sturgeon Recovery Initiative in 2022-2023. The full report is available at: www.nechakowhitesturgeon.org/publications/annual-reports

NECHAKO WHITE STURGEON



TECHNICAL PROGRAMS

The Technical Working Group (TWG) partners with several agencies to carry out a number of ongoing research and monitoring programs in the watershed.

- Adult Spawn Monitoring: This program looks at the timing of spawning, incubation success, larval drift, and the physical parameters of the river that occur during spawning. The goal is to inform habitat restoration decisions. In 2022, spawning took place between approximately May 24th and June 2nd. A total of 433 eggs were recovered from egg mats.
- Predation: A new field study commenced in 2022, looking at hatchery raised sturgeon and the predation that occurs when released in lake verses river habitats. This is a multi-year project, with another field season planned for 2023. Apart from that, a total of 36 PIT tags were collected in otter latrine sites in 2022. Additionally, this work will also explore movement of young sturgeon in the lake environment, seeing if their movements are related to water temperature (at different depths) and the presence of prey species like rainbow trout and burbot. More to come!
- Juvenile Sturgeon Indexing: This program is done using set lines and angling to gain insight into hatchery-origin juvenile survival and growth rates, to monitor the presence of wild-origin juveniles, and to refine our knowledge of juvenile habitat use. In 2022, monitoring efforts were in core areas of the Nechako River as well as Fraser Lake and portions of the Upper Fraser River. Both hatchery and wild spawned sturgeon were captured during the indexing.
- Juvenile Telemetry: This program provides information on distribution, movement, and habitat use. In 2022, 50 radio-tagged juveniles were released into the Nechako River mainstem and Fraser Lake. All 30 of the river releases were detected, and one was detected in the Fraser River near Stove River.

- Habitat Restoration: A number of habitat related projects/experiments were conducted in the Nechako River near Vanderhoof in 2022. Unfortunately, due to high river flows, some of the experiments were cut short, but overall, new information was gathered on substrate infilling in the Nechako River at the spawning area, and the rate of retention by larval sturgeon in cleaned gravels. Another aspect of the work in 2022 looked at the effectiveness of egg mat capture methods. Final numbers are still being crunched on these projects and will be reported in 2023.
- Genetics: More work was done on exploring the genetic relatedness of sturgeon in the Nechako River comparing wild and hatchery raised sturgeon. This work is important to inform how the sturgeon hatchery will operate moving forward.



ABOVE: TWG member Steve McAdam and his team prepare to release larval sturgeon into the experimental channels to measure retention in clean gravels.

ABOVE RIGHT: Homeschoolers checking out adult sturgeon during a tour at the NWSCC.



NECHAKO WHITE STURGEON CONSERVATION CENTRE

The NWSRI continues to recognize that the Nechako White Sturgeon Conservation Centre (NWSCC) is a stop-gap for sturgeon recovery that will aid in providing more time for the TWG to continue to research, implement, and monitor the more permanent solutions required to achieve a self-sustaining sturgeon population.

The NWSCC continues to aid in the recovery of Nechako White Sturgeon by hatching sturgeon and rearing them to two years old. In 2022, eight females were each spawned with five males. Many more sturgeon were captured during the brood capture period (April 11 - May 20), one of which was a juvenile (now sub-adult) that was released in 2006 as part of the pilot hatchery program!

As of February 2023, there were 682 juvenile sturgeon in the hatchery (382 from brood year 2022, 300 from brood year 2021).

During the spring of 2022, 300 juvenile sturgeon were released into the watershed (73 as part of the sturgeon release event). Of those, 220 were released into the Nechako River and 80 into Fraser Lake.

Thankfully, tours have started again at the sturgeon hatchery after a long break due to the pandemic. Already, homeschool groups and classes have visited the hatchery to learn more about these incredible fish! Check the NWSRI website for tour times.