



Broodstock Program

- The capture of broodstock is vital to any hatchery related operations because captured broodstock is how we obtain eggs and milt.
- Each year we try to capture 12 males and 12 females (24 adults) for broodstock.
- The Nechako White Sturgeon Conservation Facility's goal is to produce, raise and release up to 12,000 juvenile sturgeon each year back into the Nechako River.
- This goal will be revised as the juvenile index provides new data on survival and growth each year.
- The tags placed in adult fish caught during this program allow us to monitor fish movement and collect biological data.

Adult Spawn Monitoring

- We use radio-telemetry to monitor the sturgeons' movements from over-wintering sites towards the spawning grounds and throughout the watershed.
- Capturing eggs provides information on the locations and timing of spawning events.
- We also have a number of permanent monitoring stations that allow us to determine when tagged fish swim past them and the direction of their travel.

Larvae Monitoring

- We use drift nets to catch sturgeon larvae emerging from spawning locations (near where eggs were detected).



Juvenile Index Program

The primary goal of the juvenile index program is to monitor juvenile habitat use and survival, particularly of hatchery fish so we can meet the recovery target of 1000 adults at maturity.

- Each September we capture and release juvenile sturgeon.
- This information allows us to provide an estimate of the number of young sturgeon in the Nechako watershed.
- It also allows us to monitor the long term abundance of wild and hatchery juveniles.
- Those findings are key to determining the degree of recruitment failure.
- Generally, the fewer young sturgeon caught, and the higher known fish are captured (recapture rate), the worse news that is for the population because that means few new juvenile sturgeon are surviving to replace the adults that die.

The data gathered is critical to help us determine the habitats that are important to sturgeon. Our hope is that one day we can restore the sturgeon habitat and sturgeon will once again become a self-sustaining population.

To learn more please visit us:
www.nechakowhitesturgeon.org

Visit Us on Facebook:
Nechako White Sturgeon Recovery Initiative



Save Our Sturgeon



www.nechakowhitesturgeon.org



Carrier Sekani Tribal Council
www.carriersekani.ca
250-562-6279

Did you know that the only known Nechako white sturgeon spawning grounds are surrounding the braided river reach (around the bridge) in Vanderhoof?

The Issue: A lack of sturgeon survival to adulthood, and most mortality appears to be at the egg/larval stage.

Sturgeon Life Cycle

- Sturgeon can live to be over 100 years old. Females reach maturity at 30 - 40 years of age, males reach maturity at 20-25 years old (estimated age ranges).
- Mature sturgeon spawn between mid- May -June.
- Spawning has been recorded in water temperatures 11 - 13C, and sturgeon can spawn in water temperatures up to 18C
- A single female can produce up to 800,000 eggs in the Nechako. They spawn every 3 to 6 yrs.
- Female sturgeon broadcast (release) their eggs into water, one or more male sturgeon fertilize the eggs.
- Once fertilized eggs sink to the bottom and adhere to plants and rocks in little spaces that make them hard to reach for predators.
- If there is too much sand it can cover the sticky eggs and then they cannot adhere allowing them to drift downstream which makes it easier for predators to eat them.
- The sand can also cover the entire egg and it cannot 'breathe' so they choke and die.

Spawning Habitat Manipulation Gravel Placement Project

- High-quality spawning habitat needs clean substrate of stones and gravel to large rocks, without excess sand.
- In 2011, the NWSRI added cleaned and sorted gravel substrate to the sturgeon spawning beds.
- Every year we monitor the sturgeon spawn, egg incubation and early larval rearing success (biological monitoring).
- We also monitor how fast the sediment in the River fills in the spaces between the clean gravel (physical monitoring).
- The gravel project is not a permanent solution but furthers our understanding of the problem for future habitat restoration.

