

NWSRI VIDEO SERIES

VIDEO 1 - CONSERVATION CENTRE

This video gives a general overview of the purpose of the Nechako White Sturgeon Conservation Centre, why it was built, how it works, and the main work that happens at the hatchery.

Total Length: 9:03 minutes. It is broken into several sections. Below are some key questions to think about in each section of the video.

Overview of the Conservation Centre: 00:00 to 01:36

- What is the problem with sturgeon in the Nechako River?
- Why did they build the Conservation Centre?
- What other work are they doing to help sturgeon?

Preservation of DNA: 01:36 to 02:54

- What is the overall goal of the conservation program?
- How does the Conservation Centre help conserve sturgeon for the long-term?

Recirculating Aquaculture System: 02:54 to 04:50

- What are the benefits of the RAS?
- What is the process of the RAS?
- How much water is recirculated?

Spawning Ground: 04:50 to 06:06

- Where do Nechako White Sturgeon spawn, and how many locations?
- Describe the habitat for successful sturgeon spawning.

Broodcapture: 06:06 to 07:59

- What are the methods of catching sturgeon and what are the unique details of each method?
- What is the favourite food of sturgeon?

Release after Spawning: 07:59 to 09:02

- How long are they kept at the hatchery?
- How are sturgeon tracked after release?

INQUIRY ACTIVITY:

Pick one of the topics that you found most interesting from the video, and do an Explore project to present to your class.

For example if you thought the Recirculating Aquaculture System was interesting, you can: research and draw out the RAS system in detail; present a poster on what chemical reactions are happening to make the process work; explore the coding and algorithms involved in managing the RAS system; determine the environmental benefits to having such a system and how that can be expanded to other areas... the ideas are endless!

DEFINITIONS

Throughout the video, the narrator uses scientific language. Here are some definitions to many of the terms.

INQUIRY OPPORTUNITY:

Expand on these definitions to learn more about what they mean and how they relate to fisheries research.

Recruitment: The number of young fish that reach maturity.

Natural Recruitment: Fish spawned in the river that survive to maturity.

Recruitment Failure: When fish do not reach maturity.

Stop-Gap Measure: A temporary solution, while you find a better solution.

Founder Population: Starting a new population from a small group of individuals.

Genetic Diversity: Individuals in a population that have a wide range of characteristics that helps them survive harsh changes in the environment.

Imprint: Every water system has a set of chemicals that gives it a unique 'scent'. A fish will 'learn' or imprint this scent at an early age. This is how they instinctively return to spawn in the same river from which they were hatched.

Effort: Is a measure of the amount of work or intensity of fishing put into catching fish. It is a mathematical calculation.

More available at:

www.nechakowhitesturgeon.org

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