

NWSRI VIDEO SERIES

VIDEO 2 - SPAWNING TO RELEASE STAGE

This video gives a general overview of the process of harvesting eggs and milt, the life cycle and the Sturgeon Release Event.

Total Length: 10:31 minutes. It is broken into several sections. Below are some key questions to think about in each section of the video.

Spawn Timing and Testing: 00:00 to 02:00

- Explain the process of testing eggs for maturity?
- What hormone gets given to females to induce spawning?

Harvesting Eggs and Milt for Fertilization: 02:00 to 04:14

- What is the process of harvesting eggs and milt?
- What happens to sturgeon eggs that are not released at spawning?
- What gets added to the eggs and milt to reduce stickiness? Why are sturgeon eggs sticky?

Family: 04:14 to 04:58

- What is a maternal family?
- Explain the typical genetic matrix used at the Conservation Centre?

Life Cycle: 04:58 to 07:22

- Why is a sturgeon egg black?
- Explain the life cycle of sturgeon and compare to that of a typical Pacific salmon species - what are the differences and similarities and why?

Sturgeon Release Event: 07:22 to 10:31

- Why is the Sturgeon Release Event an important event for students?
- Go to the [Where is My Fish](#) website and calculate the growth rate of the sturgeon that have been captured more than once. What does this information tell us?

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.

Germinal Vesicle: The enlarged nucleus of the egg before completion of meiosis.

Meiosis: The cellular process of separating genetic material.

LHRHA: Pituitary hormone that induces the release of eggs.

Docile: Calm.

Vent: The external opening of a fish that is used for both excretion and reproduction.

Milt: Sperm.

Maternal Family: Offspring related to one mother.

More available at:

www.nechakowhitesturgeon.org

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INQUIRY ACTIVITY:

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

For example, you can: delve deeper into gamete development and the scientific process of testing for maturity; draw the stages of a sturgeon's development from fertilization to larvae formation; do the math associated with having more maternal families and what size facility would be needed to house such a program; gather stories from students who have participated in the Sturgeon Release as a book, blog or video... the ideas are endless!

