

A large, light gray silhouette of a sturgeon is centered on the page. Behind the sturgeon is a faint, light gray outline of a globe with latitude and longitude lines. The text 'Sturgeon Sampling' is overlaid on the sturgeon's body in a bold, dark blue font.

Sturgeon Sampling

At Vancouver Island University



VANCOUVER ISLAND
UNIVERSITY

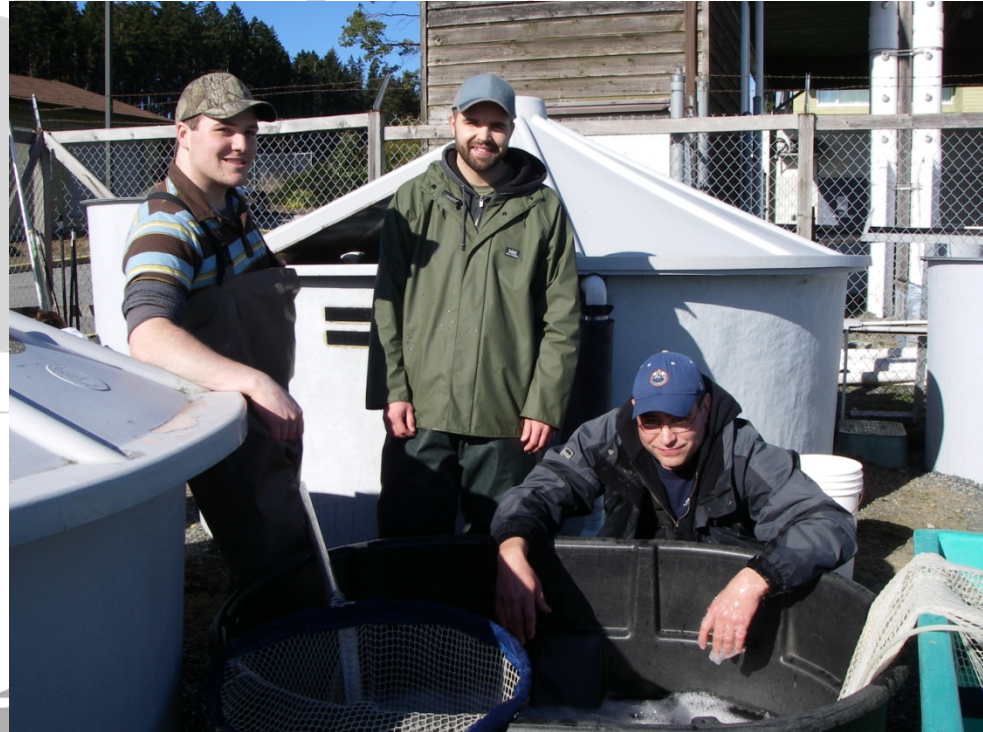
The Sampling Process

- Using an anesthetic bath, the fish are anaesthetized, and can then be handled without injury
- We then measure the fork length, which is from the tip of the snout to the middle of the tail, and the total length, which is from the tip of the snout to the end of the tail
- Finally, we weigh the fish and release them into fresh water to recover



Anaesthetics

- The VIU Fisheries and Aquaculture program primarily uses a 150ppm of Tricaine Methanesulfonate (TMS) and sodium bicarbonate to anaesthetize the sturgeon
- It takes around 5 minutes, depending on water temperature, before they can be handled safely



Why Sample?

- Sampling is done for inventories, to determine feed rates, for various faculty and student experiments, as well as to check on the general health of the fish
- Some fish have had a small (5mm) PIT tag (Passive Integrated Transponder) inserted into their back
- Each PIT tag has a unique number, which is scanned
- Information is then recorded in correspondence to each number



Brood Sampling

- Vancouver Island University (VIU) has 9 sturgeon in a 6m broodstock tank
- In order to sample these fish, the tank is drained to knee level so that the fish are easier to catch
- Due to their size, the fish are caught and placed into a specialized stretcher
- Once the fish is confined in the stretcher, length measurements can be safely recorded
- The fish can then be weighed by suspending the stretcher from a crane scale which is hung from the ceiling



Female Broodstock Sampling

- If it is suspected that a female is carrying eggs, she is removed from the tank in the stretcher and anaesthetized
- A small incision is then made in the belly of the fish, and a sample of eggs is taken to determine egg size and maturity
- The incision is then closed using an absorbable suture

