



# Salmon Siblings

## Recommended for Grades 4-6.

This activity is designed to complement the Atlantic Salmon Federation's Fish Friend's Program and The Suncor Energy Fluvarium's Life Cycle of a Salmon program.

## Materials

- Scissors
- Pencils
- Colouring pencils/art supplies
- Tape
- Construction paper
- Poster the size of the back of the aquarium
- Glue
- Laminating sheet

## Overview

*With the fish friends program, students will care for Atlantic salmon eggs and raise them to become fry. In this activity students take on the role of being big brothers and sisters to prepare for the salmon eggs' to arrive.*



## Objectives

- To learn about salmon biology.
- To learn about wetland salmon habitat.

## Background

Atlantic salmon vary in colour based on their habitat, age and sexual activity. Adults in freshwater are bronze to olive coloured with small black spots (and occasionally red spots) on the head back and sides. In saltwater, the salmon turn silvery, with a metallic green sheen.

Atlantic salmon spawn from mid-October to mid-November in Newfoundland. They choose spawning sites in streams with clean, well-oxygenated, gravel-bottom riffle areas above a pool or at the tail of a pool. They may also spawn in a lake and choose shallow sites along the shore with a gravel bottom.

Males will attempt to court a female and drive her towards a suitable spawning site. The female uses her tail to dig a nest or redd in the gravel. The female may rest frequently while digging a nest and while the male continues to drive away other male salmon. She and a male may spawn several times in one area, covering up the redd with gravel after each spawning. The female may also spawn with several different males of the spawning season.

The number of eggs deposited depends on the size of the female. Generally about 8 000-26 000 eggs are produced but only 74-91% will survive to hatch in the spring and only 10-30% will survive the first winter.

The eggs hatch around mid-April to early-May but



### At the Fluvarium

Join us for *Life Cycle of an Atlantic Salmon!* This program focuses on the life cycle of the mighty Atlantic salmon: its stages of development, its habitat, and the hazards and obstacles in its life. With this majestic fish making news headlines, what a time to introduce your class to an important environmental issue! A must for classes involved in the "Fish Friends" program!

remain buried in the gravel. The young trout are called **alevin** at this stage and take nourishment from their large yolk sacs.

After the yolk sac has been mostly absorbed and the water has warmed, the young fish emerge the gravel as **fry**.

The fry quickly grow into **parr**, a stage of rapid growth where parr marks or dark vertical bars appear on their sides.

It takes 3-4 years to for the fish reach sexual maturity. Some adults may stay in freshwater or migrate to the the ocean for their adult lives, but all Atlantic salmon return to freshwater to spawn.

### Procedure

1. *Discuss the Fish Friends program with the class.*

Discuss the upcoming Fish Friend's program with the class and their role and responsibilities. Tell them that they will be caring for baby fish for the next while like big brothers or sisters. Ask the students to share their experience in taking care of younger siblings or being taken care of by older siblings.

2. *Research salmon.*

As "big brothers and sisters" it is their job to learn what they can do to make the fish feel at home in the tank. Have the students research salmon:

- Food
- Habitat
- Water conditions
- Life cycle

You may assign half the class to research adult salmon and half the class to research baby salmon. What other plants and animals live in their habitat? Do they have some nice neighbours? Do they have some not so nice neighbours? What plants help make them feel at home?

3. *Have the students make a baby magazine/booklet.*

Ask the "big brothers and sisters" to make a baby care magazine/booklet about salmon to record their information and for others to use. They can come up with their own title or use something like "Caring for salmon siblings". Have the students report on the information they learned in the booklet. Ask the students to write instructions for caring for the salmon



babies (ie. “To provide the healthiest environment for your salmon fry...”). Have them draw various “baby” life stages on the cover (egg, yolk-sac fry, alevin).

4. *Decorate the incubator area with salmon siblings.*

Photocopy the salmon parr outline. As older siblings of the salmon, the students would be salmon parr. Ask the students to cut out the parr shapes and colour/decorate them to look like parr. Ask the students to write their name on it and tape it around the incubation area. Ask the students to pretend they are a salmon

5. *Create a stream habitat background to make your fish at home.*

Using their research on salmon habitat, have the students make a background for the fish tank that will house the salmon eggs. It should showcase young salmon habitat, plants to hide in, and freshwater neighbours in the area. They can make the various plants and animals out of construction paper and paste it on a piece of craft paper the same size as the tank. Laminate the finished product to keep it from getting wet and tape it to the back of the tank.

### Extensions

- Ask the students to research and compare other salmonids in Newfoundland (Arctic char, brook trout, brown trout, rainbow trout. Etc.).
- Make a baby book about the salmon fry (ie. yolk sac fry’s first swim...)

### Resources

#### Websites

*Atlantic Salmon Federation: About Salmon*

[http://www.asf.ca/about\\_salmon.php](http://www.asf.ca/about_salmon.php)

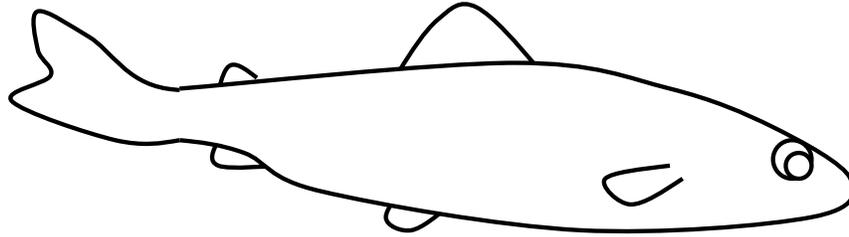
Information about the biology and ecology of salmon.

#### Books

*Selina an Atlantic salmon.* Downer, Don. Cape Breton University Press. 1999.



# Salmon Parr Outline

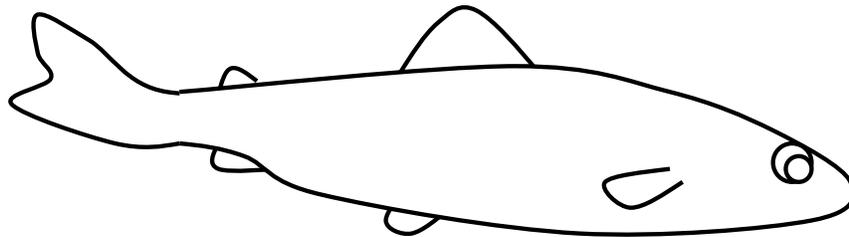


Name: \_\_\_\_\_

My favourite thing to do as a salmon is: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Name: \_\_\_\_\_

My favourite thing to do as a salmon is: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

