

“Swim for Cover!”

Similar activity framework to *Stormy Seas*

Activity Description:

The activity will focus on education relating to the importance of instream cover for native fish. The game will involve having some participants act as predators (taggers) and others act as native species. There will be site boundaries set up (stream banks) in which all participants must stay within while playing. During the first phase of the game, the native fish must travel from one side of the course to the other (upstream), trying to avoid the predators (taggers) that are spread throughout the course. If native fish are tagged, they then join the predators and become taggers. Once all native fish have advanced and either made it across safely or have been tagged and become predators, the native fish will then swim back downstream trying to avoid the predators once again. The scenario for game 1 will be a stream with little cover in the form of some large boulders (hula hoops) and potentially some small logs (yellow rope) sitting randomly in the stream. The cover in the form of hula hoops and yellow rope will be safe zones in which the predators cannot enter. To keep the native fish moving they cannot stay in a safe zone for more than 20 seconds before advancing through the course. Once game 1 has ended the participants will help install instream habitat improvement structures throughout the stream using yellow rope. After the instream structures have been installed game 2 will start and will have the same rules as game 1. Participants should notice quickly that it is much easier to pass through the course with the added cover; after a couple of rounds, the lead will get the participant's attention and ask what they're noticing about the increased amount of cover available.

Age Group: 6–12 years

Group Size: 10–30 participants

Setting: Outdoor field or gym (flat, open area)

Time Required: 20–30 minutes

Learning Focus: Stream ecology, habitat restoration, predator-prey relationships, human impacts

Background context: We're going to play a game called *Swim for Cover!* You'll be native freshwater fish trying to swim through a stream full of predators. Native fish are species that naturally live in a particular area or ecosystem. Native fish are an important part of their ecosystem; they help keep food webs balanced and are often indicators of healthy water. They have evolved there over thousands of years and are well adapted to the local environment, including the temperature, food sources, and other wildlife. Non-native fish are species that have been brought from somewhere else by people, either on purpose (for fishing, aquariums, or ponds) or by accident.

Briefly explain that instream cover provides shelter from predators, shade, and resting spots in fast water.

“In real life, fish depend on good habitat to hide, rest, and stay safe. When people remove logs, straighten streams, or clear vegetation, fish lose those safe spots. But when that

habitat is available to fish, or we restore streams with plants, rocks, and woody debris, fish populations can thrive!"

In this game, you are going to try to hide from predators in the ecosystem. Just like in real life, the fish that find good hiding places like under logs, behind rocks, or in plants...have a better chance of surviving!

- Native fish examples in Nova Scotia: Brook trout, Atlantic salmon, White sucker, American eel, Golden shiner, Atlantic whitefish, Gaspereau, White sucker, Yellow perch
- Nonnative fish examples in Nova Scotia: Smallmouth bass, Chain pickerel
- Predators of freshwater fishes: Birds, mammals, other fish, including humans!

Ask a few questions to engage the group:

- "What kinds of things do fish use for cover in streams?"
- "Why might cover be important for them?"

Rules of the Game

- Native fish must advance through the course each time the whistle is blown.
- If native fish are tagged outside of a safe zone, they must become a predator.
- All participants must always stay within the streambanks (white rope).
- Native fish cannot stay in the same safe zone for more than 20 seconds before advancing.
- Each round is over once all native fish have reached the other side or have been tagged.
- Once all native fish have been eaten the game ends.
- If a native fish is tagged without being fully into a safe zone, they become a predator (example; one foot in one foot out)

Closing

Ask:

- "What can we do to help protect fish habitats?"
- "Why is a healthy habitat important for all animals, not just fish?"
- Have kids share their favorite "cover" spot or what kind of fish they would want to be!
- Ask participants to draw a healthy stream with lots of cover.
- Have students brainstorm local stream restoration ideas.

Game Comparison: "*Swim for Cover!*" vs. *Stormy Seas*

Overview:

"*Swim for Cover!*" is an active, outdoor simulation game designed to teach participants about the importance of instream cover for native freshwater fish species. While it shares similarities with the well-known game *Stormy Seas*, it has been adapted to focus specifically on stream ecosystems and habitat restoration.

Similarities:

Both *Swim for Cover!* and *Stormy Seas*:

- Use tag-style gameplay to simulate predator-prey dynamics in aquatic ecosystems.
- Encourage physical movement, team participation, and strategic thinking.
- Provide a fun and experiential way to explore survival challenges faced by aquatic species.
- Use multiple rounds to show the impact of environmental conditions on species survival.

Educational Objectives of *Swim for Cover!*:

- Understand how instream structures like logs and rocks help fish hide from predators.
- Recognize the role of habitat in native fish survival and stream health.
- Experience how restoration efforts (like adding cover) positively impact wildlife.