

Fish Health Station Script

I. Objectives of the fish health station

- a. Explore how humans affect water quality and habitat in ways that affect fish health and actions that could be taken in the watershed to benefit fish health.
- b. Predict and measure sub-lethal effects to fish based on water quality and habitat conditions.
- c. Understand how water quality and fish habitat interact to affect fish health.
- d. Understand how fish behavior and use of habitat/cover can affect a fish's predation risk.
- e. Identify basic parts and function of internal and external fish anatomy.
- f. Identify potential effects to fish anatomy from contaminants and/or disease.

II. Activities within the fish health station

- a. Show and discuss videos that demonstrate the sub-lethal effects of contaminants to fish.
- b. Conduct experiments with four tanks that demonstrate how presence of contaminants and different types of habitat (i.e., complex versus simple habitat) can affect a fish's predation risk. Students will develop a hypothesis to test their experiments.
- c. Utilize fish dissection puzzles in conjunction with a fish health jeopardy game that demonstrates to students how contaminants and/or disease can affect various internal and external anatomy of a fish.

Intro: The Fish Health station builds upon information covered in "Habitat Sense" and "What's in my Water?" by giving a species perspective on possible environmental stressors that could compromise a fish's health in a watershed. Discussion on both direct and indirect impacts are addressed such as increased temp, decreased oxygen, exposure to chemicals, increased prevalence of bacteria, parasites and disease, decreased food supply and increased predation.

The objectives are: (try to summarize all objectives into 2-4 sentences?) Barb you had a great intro yesterday!

Once students arrive, 3 videos that demonstrate the sub-lethal effects of contaminants to fish are shown and discussed.

The group of students is then divided into 2 groups that rotate between 2 substations in Fish Health.

The 1st station is a habitat study that focuses on the importance of pristine habitat and survival of aquatic species. Four fish tanks with live fish are set up: ideal habitat, contaminated habitat, turbid habitat and no habitat. Students then play the role of a predator trying to net or “eat” the fish, while other students time and record how quickly the fish is caught.

The objective is to show the importance of habitat and water quality for fish’s health and survival. Also to predict and measure sub-lethal effects to fish based on water quality and habitat conditions.

The 2nd station utilizes 2 fish dissection puzzles in conjunction with a fish health jeopardy game to teach students how contaminants and/or disease can affect various internal and external anatomy of a fish.