Fishy Who's Who

Objectives

Students will: 1) recognize and identify the major species of freshwater or saltwater fish that live in their area; 2) describe various values of fish species in some aquatic communities; and 3) locate places where the fish species occur.

Method

Students complete an inventory of fish habitats that exist in their area, obtain information about the various fish species that occur in these habitats and locate the fish species on a map.

Materials

Paper; pencils; large piece of paper for wall map; map of the state; overhead projector; painting or drawing materials for illustrations; colored string or yarn; tape; thumb tacks or pushpins

Grade Level: 5-8

Subject Areas: Science, Language Arts, Expressive Arts, Social Studies, Environmental

Education

Duration: three 45-minute sessions

Group Size: small groups

Setting: indoors

Conceptual Framework Topic Reference:

WPID

Key Terms: biography, habitat, fish

Appendices: Local Resources, Agencies and Organizations, Aquarium, Animals in

the Classroom

Background

Fish play a variety of roles in aquatic ecosystems. Some are predators on other aquatic life, while others feed on plant material. Still others scavenge or feed on detritus. Some species deposit eggs in special nests, some have live young. Fish also exhibit a wide range of behaviors and have many different characteristics and adaptations. While some fish species are better known or seen more often, all fish species play important roles in freshwater and saltwater ecosystems.

Procedure

- 1. Ask the students what fish species they think inhabit the waters in their community, state or region. What different fish species have they seen, caught, heard of or read about? Make a list of these different kinds of fish and post it in the room.
- 2. Obtain a large map of the area or region.

 Make sure the map identifies landforms as well as such major bodies of water as lakes, rivers, large streams, bays and oceans. Identify each major kind of aquatic habitat located on the map as freshwater and/or saltwater. Identify a certain area to be studied more closely by the class. (A simple way of making a large wall map: 1) place a map on an overhead projector, projecting the image onto a wall where a piece of paper is taped to the wall; 2) trace around the part of the map to be studied.)
- 3. Divide the class into teams. Have each team identify possible sources of information about fish and fish habitats in the community, state or region and develop plans for obtaining the information. State wildlife

agency personnel, water-quality specialists and marine and aquatic biologists may be of assistance. Also contact state and federal agencies to obtain materials. Local wildlife clubs, state wildlife agencies and private groups and organizations often have publications. Other sources might include the school or public library and the Internet. Have each team use its sources and develop "biographies" for as many of the fish that occur in its study area as possible.

NOTE: Each "biography" could include the fish's name (common and scientific), where it lives and what its habits are. It could also include specific information about the kind of habitat (freshwater, estuarine or marine) the fish needs in order to survive. In addition to biological information about the fish and its habitat the "biographies" could include information about ecological, scientific, recreational, economic, political, cultural, aesthetic and intrinsic reasons for which fish are valuable.

- 4. Ask each team's members to create a set of paintings, sketches or other illustrations of the fish they have written about in their biographies, as well as an illustration of the fish's habitat. These should be drawn large enough to be seen easily in a wall display.
- 5. Have the teams meet and compare the research information from different sources. In some cases, the information they have found may not agree. If so, the students might try to determine why. Through this process of comparing research notes, the students might be able to improve the accuracy and comprehensiveness of their descriptions of the various fish and habitats.
- 6. Returning to the large wall map, ask the teams to post the biographies (on cards or other suitable format) and the artwork depictions of the fish and the habitats on the map near the locations where the fish occur. If the fish biographies begin to overlap, post the cards on the outer edges of the map and extend colored string or yarn from the cards

- and sketches to the areas where the various fish species live. Use tape, thumb tacks or push pins to attach the yarn to the artwork and map.
- 7. Finally, have the students compare their original list of fish from Step 1 with the current information on the map.

Extensions

- 1. Research why some fish species occur widely, in various habitats, while others are more restricted or specialized. What special needs do some fish have or what special abilities do they have?
- 2. Invite a local fish biologist to come and speak to the class about fish and fish habitat in the state.
- 3. Locate any local hatcheries, fish research stations or other places doing research with fish and fish habitats. If possible, arrange a tour of one of these facilities for the class or group.
- 4. Are there any special fish habitat "hot spots" in your state—places where fish are in danger because of human or natural actions? Note these on your wall map as well and describe the nature of the problem.
- 5. Conduct a "creel survey." This involves conducting interviews of people whom you find fishing—for example, along streams and rivers, in lakes, at the ocean shore, even at urban parks.

Evaluation

- 1. Identify five species of fish that live in your state.
- 2. Describe where in the state each of these fish is most apt to live and in what types of habitat.
- 3. List and describe a variety of reasons that fish are important.