

Fish SD: Where are the Fish?

Background: Review Chapters 4: *Fishing Techniques* and 5: *Fish Identification and Life History in Going Fishing*

Duration: 45 minutes

Materials: Fish Cards, Habitat Worksheet, hula hoops (or a method to delineate 3 separate areas)

Objectives: Students will learn how habitat preferences vary among fish species, and how knowledge of fish habitat preferences can improve fishing success.

Preparation: Print two sets of Fish Cards on different colored paper. (If you have a large class, you may want to print two double sets of cards). Cut paper into individual Fish Cards. Print enough lake habitat pages for the class. These can be shared by groups of several students.

Warm up: Begin with a basic review of habitat – food, water, shelter & space. Ask students if all fish eat the same food or occupy the same space. Point out that South Dakota fish species have a wide variety of shapes, sizes, fins and mouths. These adaptations indicate different habitat preferences.

Activity:

Divide class into two teams.

Each team lines up single file on one side of a gym or field. On the opposite end, place three hula hoops or create three distinct areas that are clearly labeled 'rocks and brush', 'deep pool' and 'aquatic vegetation'.

Each team receives a separate set of Fish Cards that will sit on the floor at the front of their line. On a cue, the relay race begins. The first student picks up the top card and from the information on the card determines which habitat the fish will occupy. The student should decide without help from teammates.

The student runs to the correct habitat, deposits the card and returns to the start of the line to tag the next student who does the same.

The race continues until a team finishes.

The winning team is determined by tallying points. The finishing team is awarded full points (12 points, one for each card (or 24 if playing with doubled sets) and the other teams points are subtracted by whatever remains in their pile.

Then, as a class, the fish in each habitat are studied to determine if they were placed in the appropriate habitat. (Some fish will be suited to two of the three habitat choices. An answer key is provided.)

Each card that was placed incorrectly results in a point loss for that team. Error checking allows for a team to win even if it doesn't finish first.

If time allows, shuffle the cards and play best out of three rounds. This will allow for all students to take a turn and for students to encounter a variety of fish species.

Wrap up: As a class, look at the communities of fish that occupy similar habitats. Identify the species that occupy multiple habitats. Discuss how knowledge of these habitat preferences will influence how the students fish. Have each student select one of the fish species from the game and using the lake habitat worksheet, indicate where they would fish for that species.

Fish Habitat

Bluegill – Aquatic Plants

Walleye – Deep Pool

Black Crappie – Aquatic Plants, Brush Piles

Northern Pike – Aquatic Plants, Brush Piles

Common Carp – Aquatic Plants

Black Bullhead – Aquatic Plants, Brush Piles

Smallmouth Bass - Aquatic Plants, Brush Piles

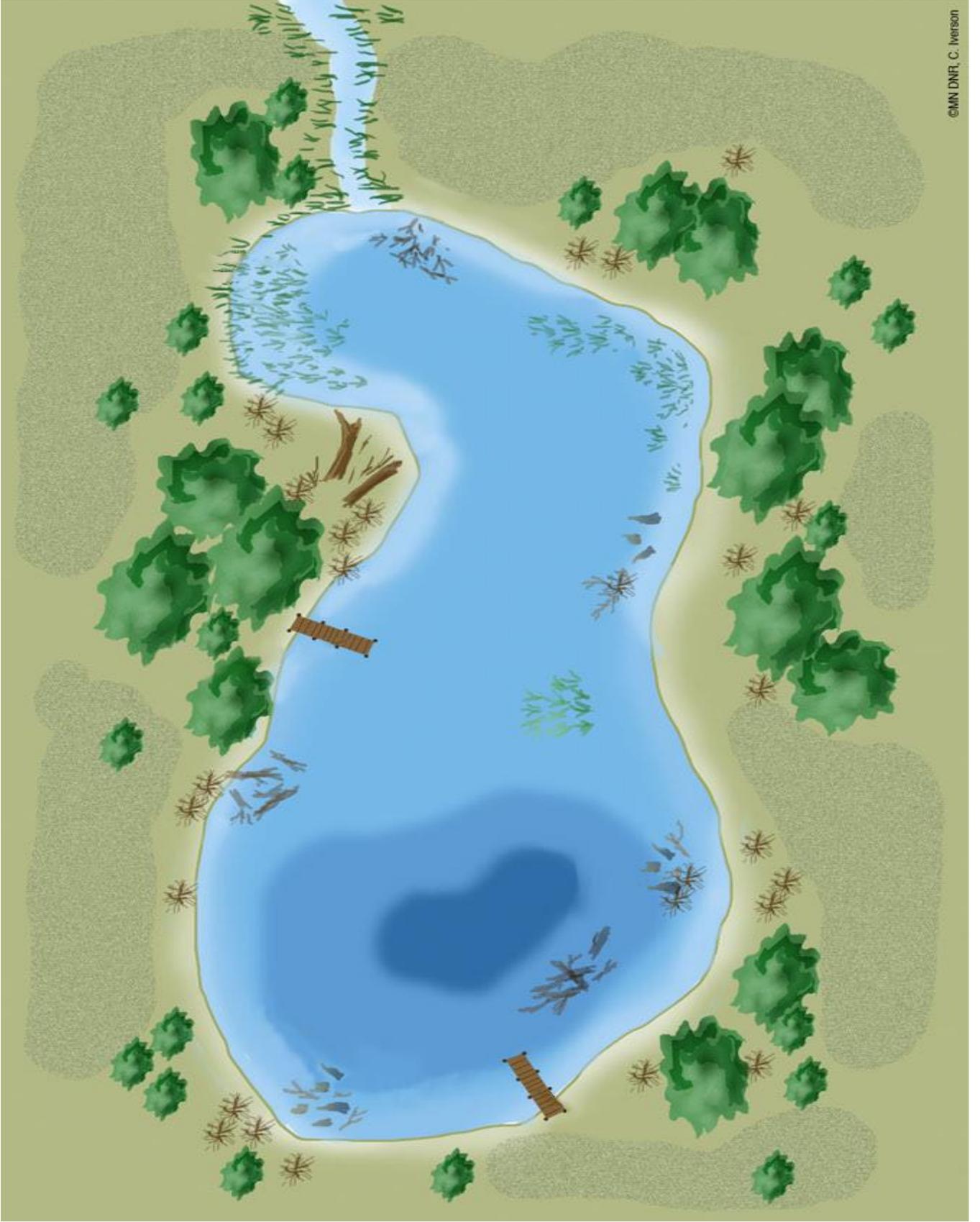
Largemouth Bass - Aquatic Plants, Brush Piles

Rainbow Trout – Deep Pool

Yellow Perch - Aquatic Plants

Channel Catfish – Deep Pool

Freshwater Drum – Deep Pool



Bluegill

Lepomis macrochirus



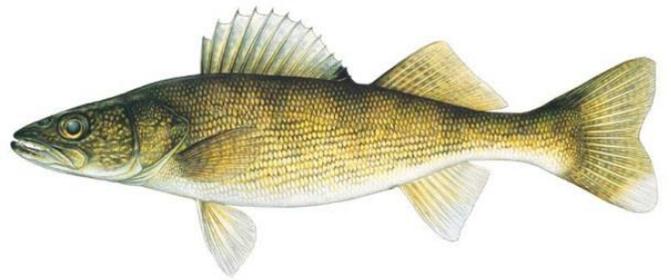
Habitat: in lakes and rivers, shallow water among aquatic plants

Behavior: stays in shade during the day; travels in loose schools

Food: aquatic insects, snails, zooplankton

Walleye

Sander vitreum



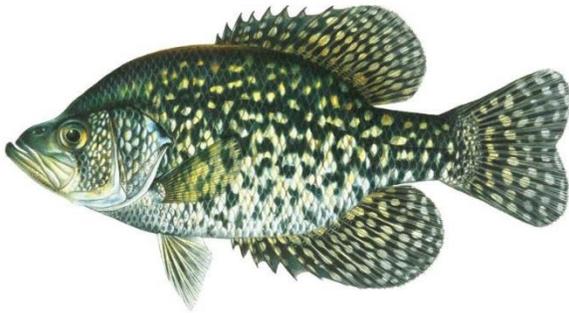
Habitat: lakes and rivers in deep water

Behavior: moves to shallower water on cloudy days or at night; travels in loose schools

Food: fish, crayfish

Black Crappie

Poxomis nigromaculatus



Habitat: lakes and rivers along aquatic plants and in the branches of fallen trees submerged woody debris

Behavior: gathers in loose groups around cover

Food: small fish, aquatic insects

Northern pike

Esox lucius



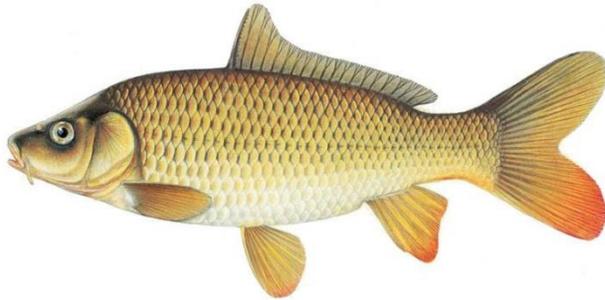
Habitat: lakes and rivers near aquatic plants

Behavior: hides from prey in brush or aquatic plants; very fast and aggressive when chasing prey fish

Food: smaller fish

Common Carp

Cyprinus carpio



Habitat: lakes and rivers

Behavior: feeds on bottom among aquatic plants

Food: aquatic insects, crayfish, aquatic plants,

Black Bullhead

Ameiurus melas



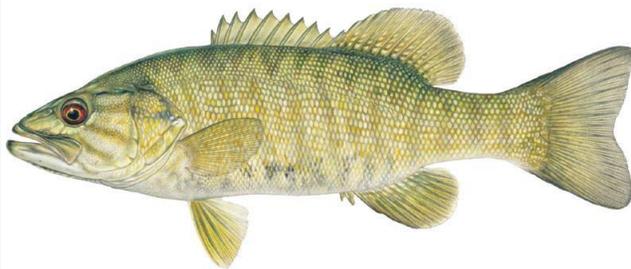
Habitat: lakes and rivers among aquatic plants or brush

Behavior: locates food using taste and smell; has tastebuds on barbels (whiskers) and on entire body

Food: fish, crayfish, aquatic plants and insects, frogs

Smallmouth Bass

Micropterus dolomieu



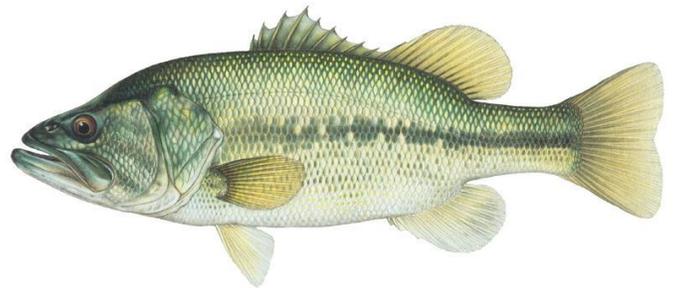
Habitat: lakes and rivers near rocks, brush and drop-offs

Behavior: ambush feeder; most active in morning and evening; highly territorial

Food: smaller fish, crayfish, leeches

Largemouth Bass

Micropterus salmoides



Habitat: lakes and rivers in brush and aquatic plants

Behavior: ambushes prey from a hiding spot in brush or plants; highly territorial

Food: smaller fish, crayfish, frogs

Rainbow Trout

Oncorhynchus mykiss



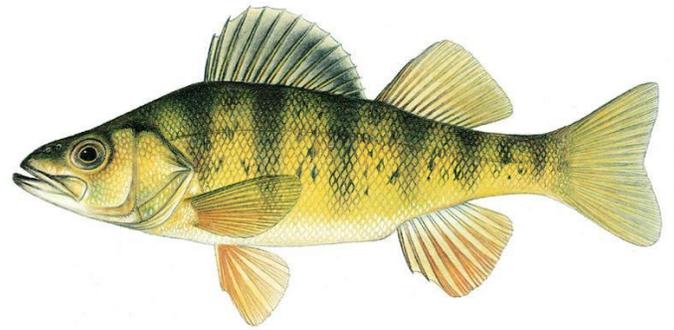
Habitat: cold water streams with deep pools and undercut banks

Behavior: rests in pools and undercut banks; feeds on organisms swept downstream

Food: small fish and aquatic invertebrates

Yellow Perch

Perca flavescens



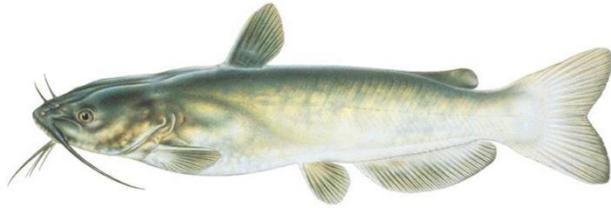
Habitat: lakes and rivers near rocks and aquatic plants

Behavior: Swims in large schools

Food: small fish, crayfish, zooplankton, aquatic invertebrates

Channel Catfish

Ictalurus punctatus



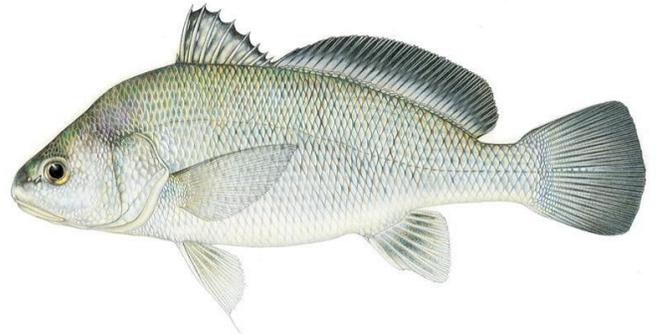
Habitat: lakes and rivers in undercut banks, pools, or among cover such as fallen trees or submerged woody debris

Behavior: locates food using taste and smell; has tastebuds on barbels (whiskers) and on entire body

Food: fish, crayfish, aquatic plants and insects, frogs

Freshwater Drum

Aplodinotus grunniens



Habitat: lakes and rivers

Behavior: Stays near bottom and in pools; makes croaking or booming sound using its swim bladder

Food: aquatic invertebrates