

## Habitat Cards

### Student Handout

## Habitat 1 **Your creature lives in a lake or pond.**

Characteristics of Yellowstone Lake:

- Deep (about 430 feet deep) and very cold (average summer water temperature is 45° F).
- Fed by more than 124 tributary streams.
- About 20 species of plants, including duckweed and pondweed, grow in shallow, protected areas.
- Freshwater shrimp, aquatic insects, worms, and tiny clams live in and among the rooted aquatic plants.
- Tiny plants and animals called phytoplankton and zooplankton are suspended in open water.
- Bottom-dwellers include flatworms and insect larvae.
- Otters, eagles, ospreys, bears, white pelicans, kingfishers, dippers, and other carnivores live in or near the lake.
- Because water is densest at temperatures above freezing, it is impossible for the lake to freeze from the bottom up.

## Habitat 2 **Your creature lives in a geyser basin.**

Characteristics of Norris Geyser Basin:

- Microbes tolerant of high temperatures grow in pools and thermal runoff channels.
- The water in some of the pools is more acidic than lemon juice.
- Winter snow accumulation is relatively shallow, due to the heat generated.
- The edges of pools and thermal runoff channels remain snow free all winter. In this microenvironment, plants can grow throughout the winter season.
- Dragonflies, spiders, tiger beetles, wasps, and other insectivores are common.
- Insectivorous birds, such as killdeer, lay eggs on cool, bare ground.
- Heat-tolerant microbes form long, intertwined filaments in runoff channels.
- Sparse vegetation includes various grasses and sedges, chickweed, and monkeyflowers.

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### Habitat 3 **Your creature lives in a river or stream.**

Characteristics of LeHardy Rapids on the Yellowstone River:

- Wide, shallow rapids in a relatively straight channel with few pools.
- Water temperatures about 50 to 55° F.
- Bottom covered with gravel, cobble, boulders, and woody debris.
- Conifers line the river, along with various herbaceous plants, including mosses and bryophytes.
- Rocks and woody debris in midstream and along the riverbank support communities of moss and algae.
- Tadpoles and aquatic insects, including salmonflies and caddis flies, are common.
- Spawning trout congregate during the spring.
- Kingfishers and dippers frequent the area.

### Habitat 4 **Your creature lives in a marsh.**

Characteristics of Swan Lake Flats in Gardner's Hole:

- Broad, flat area with one or two shallow ponds.
- Surrounding grassland is intermittently wet, particularly from melting snow in spring.
- Western chorus frogs, snails, and crayfish are common.
- Aquatic vegetation includes pondweed, pond lily, marehail, sedges, and others.
- Trumpeter swans sometimes visit the area during summer.
- Ducks and other water birds are occasionally seen in the marsh, along with yellow-headed blackbirds.
- Deer mice, meadow voles, and other small mammals find suitable habitat here.
- Elk, deer, bison, and moose occasionally move through the area.

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# Habitat 5

Your creature lives in a meadow.

Characteristics of Cascade Meadows near Canyon Village:

- Few trees; open to full sunlight.
- Dense covering of various species of grasses and sedges.
- Common wildflowers include Indian paintbrush, aster, penstemmon, lupine, monkeyflower, balsamroot, harebell, and Rocky Mountain fringed gentian.
- Traversed by small streams.
- Moose, elk, deer, and bison frequently are seen grazing in meadow.
- Supports a rich and diverse community of small mammals, including jumping mice, deer mice, and shrews and their predators such as great gray owls.
- Deep, rich organic soil.

