



Teacher Guide

UNIT 3 LESSON 3: HABITAT MANAGEMENT

Theme

Scientists, land managers, individuals, and communities can use scientific ideas to conserve birds and their habitats.

Missouri Science Standards: LS2.C.2; ESS3.C.2; ETS1.A.1

Vocabulary



Habitat Management - The techniques and practices used to improve the quality of a habitat for a particular species or a variety of species that are dependent upon that habitat. The purpose is to improve existing habitats to benefit wildlife. We can often increase the amount of wildlife in an area, improve their quality and health, and encourage them to use areas that they currently are not using just by working to improve the habitat.

Conservation - A careful preservation and protection of something; especially planned management of a natural resource to prevent exploitation, destruction, or neglect.

Land Manager - Any federal, state, local, or private entity that administers, directs, oversees, or controls the use of public or private land, including the application of fire to the land.

Video 1: Exploring the Big Muddy: A Virtual Field Trip

Video Summary (from website): All aboard! It's a virtual excursion on the Missouri River, where every moment brings a new experience. Our virtual field trip incorporates spectacular views of limestone bluffs, eagles' nests, and enduring artwork, as well as insider's knowledge about the river imparted by our crew. This virtual field trip is a unique tool for developing a deeper understanding of the Missouri River. Made by Missouri River Relief.

Total Video Length: 27:18

Clip for this Lesson: 15:56 – 22:26 (06:30 in length)

Link: <https://youtu.be/dKmOMWJZv2A>

Link to Full Resource: <https://riverrelief.org/resource/exploring-the-big-muddy-a-virtual-field-trip/>

Follow-up Questions:

- 1.Fill in the blank. The _____ of the Missouri River reduced the number of islands and shallow, slow-moving water where little fish would live.
- 2.True or False. After scientists and the Army Corps of Engineers built the chute for the Pallid Sturgeon, they let it go and didn't revisit.
- 3.What were the two things scientists learned when studying the fish and other wildlife in the chute?
- 4.What are some of your ideas to help endangered wildlife like the Pallid Sturgeon fish and Piping Plover bird?

Activity: Let's Improve the Habitat

Activity Summary: In this activity, the students will take what they have learned from the previous two lessons to create a plan for how an area around them could be improved as habitat for the King Rail while still meeting the needs of the community.

Video 2: What is Conservation?

Video Summary: This video acts as a summary of the main concepts the students have learned over the first three lessons. It covers the definitions of conservation and habitat management as well as how the students can get involved in conservation themselves.

Link: <https://youtu.be/B9ZubiZDZko>

Follow-Up Questions:

- 1.List four of the "players" or groups of people involved in the conservation of a species.
- 2.Fill in the blanks. The techniques and practices used to improve the quality of a habitat for a particular species or a variety of species that are dependent upon that habitat is called _____.
- 3.Describe one way that you can help the King Rail.

Concluding Questions/Assessment

*Student worksheet included in packet.

1. Describe in detail one way humans interact with our environment.
2. What does 'conservation' mean to you?
3. Describe one way scientists, land managers, individuals, and communities can use science ideas and math to conserve birds and their habitats.
4. What is community science and how can you contribute?

