



# Merry Lea Environmental Learning Center of Goshen College

## Wonderful Wetlands: 3<sup>rd</sup> -12<sup>th</sup>

P.O. Box 263, Wolf Lake, IN 46796 <https://www.goshen.edu/merrylea> 260-799-5869

### Quick Facts

**Season:** Spring (April-May), Summer (June), & Fall (Sept.-Nov.)

**Grades:** 3<sup>rd</sup> -12<sup>th</sup>

**Program length:** 4 hours

**Max # of students:** 80

#### Standards Connections:

##### 3<sup>rd</sup> Grade

**3.LS.3** Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

##### 4<sup>th</sup> Grade

**4.LS.2** Use evidence to support the explanation that a change in the environment may result in a plant or animal will survive and reproduce, move to a new location, or die.

##### 6<sup>th</sup> Grade:

**6.LS.3** Describe specific relationships (predator/prey, consumer/producer, parasite/host) and symbiotic relationships between organisms. Construct an explanation that predicts why patterns of interactions develop between organisms in an ecosystem. efficient.

##### 8<sup>th</sup> Grade:

**8.LS.9** Examine traits of individuals within a species that may give them an advantage or disadvantage to survive and reproduce in stable or changing environment.

##### 9<sup>th</sup>-12<sup>th</sup> Grade:

**B.3.2.** Design, evaluate, and refine a model which shows how human activities and natural phenomena can change the flow of matter and energy in an ecosystem and how those changes impact the environment and biodiversity of populations in ecosystems of different scales, as well as how these human impacts can be

### Program Description

This program will help participants learn about the importance of wetlands to larger ecosystems. Participants will also discover how humans can impact water quality and learn how to gather and interpret data.

### Program Objectives

Students will:

- Explore a marsh ecosystem and discover the plants and animals living there
- Sample for aquatic macroinvertebrates, learn to identify them, and utilize this data as indicators of water quality

### Program Outline

#### Activity Stations

Students will rotate in groups through four different stations. They will experience two stations before lunch and two after lunch. Stations include:

- a. Wetland Dipping: Students will use waders and nets to dip for aquatic macroinvertebrates in a lake ecosystem.
- b. Wetland Lab: Students will use microscopes and field guides to identify aquatic macroinvertebrates. This data is used to determine the water quality of the lake at the time of the program.
- c. Hike: Students will hike around the wetland participating in various age-appropriate activities.
- d. Game: Students will play a tag game to understand how water quality impacts macroinvertebrate populations.

### Vocabulary

- Wetland
- Macroinvertebrate
- Invasive Species
- Pollution Tolerance Index