



Merry Lea Environmental Learning Center of Goshen College

Biodiversity: 6th – 12th

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

Quick Facts

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

Grades: 6th – 12th

Program length: 4 hours

Max # of students: 35

Standards Connections:

6.LS.1: Investigate and describe how homeostasis is maintained as living things seek out their basic needs.

6.LS.3: Describe specific relationships and symbiotic relationships between organisms.

6.LS.4: Investigate and use data to explain how changes in biotic and abiotic components in a given habitat can be beneficial or detrimental to native plants and animals.

6.LS.5: Research invasive species and discuss their impact on ecosystems.

8.ESS.3: Research how human consumption of finite natural resources and human activities have had an impact on the environment.

8.LS.5: Explain how factors affecting natural selection increase or decrease a species' ability to survive and reproduce.

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.

B.3.3: Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms...

B.5.5: Construct an explanation based on evidence that the process of evolution primarily results from four factors...

Env.2.3: Recognize and explain that the amount of life any ecosystem can support is limited by the available energy, water, oxygen, nutrients, and minerals...

Env.5.5: Identify the indirect and direct threats to biodiversity...

Env.5.6: Identify and explain the three levels of biodiversity...

Env.6.4: Explain how the carrying capacity of an ecosystem may change as availability of resources changes.

Program Description

This program will introduce students to the concept of biodiversity and its importance. It will provide an opportunity for students to become aware of the diversity of organisms living at Merry Lea by exploring several ecosystems.

Program Objectives

Students will:

- Explain the concept of biodiversity including its importance
- Define the terms producer, consumer, decomposer, prey, predator, herbivore, carnivore, and omnivore
- Create a small food web using organisms at Merry Lea

Program Outline

1. Habitat Hike

Students will spend a large portion of the day hiking and exploring the different ecosystems at Merry Lea including prairie, meadow, wetland, forest, and lake. They will participate in several activities including:

- **Habitat Study:** Student will spend 5-7 minutes studying a chosen habitat and then fill out an Ecosystem Study Sheet. They will then compare it to one or two other ecosystems.
- **Forest Floor Diversity:** Students will observe and explain how invasive species impact the diversity found on a forest floor.
- **Field Guide Exercise:** Students will have an opportunity to practice using a variety of field guides to identify different plant and animal species.

2. Afternoon options include:

- Games
- Insect Search

Vocabulary

- Herbivore
- Carnivore
- Omnivore
- Prey
- Predator
- Producer
- Consumer
- Decomposer

Contact Katie Stoltzfus at kcstoltzfus@goshen.edu or 260-799-5869 with any questions.