Merry Lea
Environmental Learning Center of Goshen College

Biodiversity
9th - 12th

Program Description

Students discover the diversity of life at Merry Lea firsthand by exploring multiple ecosystems on our trails. In each habitat, students identify native organisms and discuss the interconnections of mammals, insects, plants, humans and more. Assess the importance of biodiversity by flipping logs, interpreting abiotic features, and meeting the flora and fauna of Merry Lea.

Program Outline

1. Habitat Hike

   Students spend a large portion of the day hiking and exploring the different ecosystems at Merry Lea including prairie, meadow, wetland, forest and lake. They participate in several activities including:
   - Habitat Study: Students spend several minutes observing and comparing different ecosystems while filling out an ecosystem study sheet.
   - Forest Floor Diversity: Students observe and explain how invasive species impact the diversity found on a forest floor.
   - Field Guide Exercise: Students 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

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

Vocabulary

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

Quick Facts

Season Fall: September - November
Spring: April - May
Summer: June

Grades 9th - 12th

Program Length 4 hours

Maximum # of Students 80 Students

Standards Correlation

9th-12th Grade

ESS3.C: Human Impacts on Earth Systems: The sustainability of human societies and the biodiversity that supports them requires responsible management of natural resources. (HS-ESS3-3)

LS2.C: Ecosystem Dynamics, Functioning, and Resilience: A complex set of interactions within an ecosystem can keep its numbers and types of organisms relatively constant over long periods of time under stable conditions. If a modest biological or physical disturbance to an ecosystem occurs, it may return to its more or less original status (i.e., the ecosystem is resilient), as opposed to becoming a very different ecosystem. Extreme fluctuations in conditions or the size of any population, however, can challenge the functioning of ecosystems in terms of resources and habitat availability. (HS-LS2-2),(HS-LS2-6)

LS2.C: Ecosystem Dynamics, Functioning, and Resilience: Anthropogenic changes (induced by human activity) in the environment—including habitat destruction, pollution, introduction of invasive species, overexploitation, and climate change—can disrupt an ecosystem and threaten the survival of some species. (HS-LS2-7)

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