

Welcome to Wonder



At the Catholic Ecology Center, the beauty of God's creation comes alive with hands-on, year-round ecology programs for all ages. Our diverse programming utilizes the amazing 60 acre property of the CEC which includes prairies, forest, wetlands, an organic farm, pond, creek and river. Our amazing indoor facilities allow for countless opportunities for programming. You can even combine our ecology programs with retreats, team building or service projects to make the most use of your time at the CEC.

We look forward to having you join us for an amazing, faith-filled experience your students will never forget!

Joe Meyer
Executive Director



**CATHOLIC
ECOLOGY
CENTER**



*But now ask the animals to teach you,
the birds of the air to tell you;
Or speak to the earth to instruct you,
and the fish of the sea to inform you.*

Job 12:7



SEASONAL ECOLOGY PROGRAMS

SPRING (MARCH - MAY)

- 6 Animal Ecology
- 6 Animal Encounters
- 6 Birding
- 7 Creatures of the Night
- 7 Ecosystems/Habitats
- 8 Endangered: Tragedy & Success
- 8 Foraged Ink: Chemistry & Art
- 8 Fun on the Farm
- 8 Fungus Among Us
- 9 Geology Rocks!
- 9 Growing Gardens
- 10 Invasive Species
- 10 Live Animal Program
- 10 Living Sustainably
- 11 Maple Syruping
- 11 Mighty Microbes
- 12 Orienteering
- 12 Predator & Prey: Energy in Ecosystems
- 13 Science Inquiry
- 13 Soil Science/Composting
- 13 Tracks & Traces
- 14 Tree Science
- 14 Water Quality Testing & Water Ecology
- 14 Weather & Meteorology
- 15 Weathering & Erosion
- 15 Wilderness Survival
- 15 Wildlife Monitoring

SUMMER (JUNE - AUG)

- 6 Amazing Insects
- 6 Animal Ecology
- 6 Animal Encounters
- 6 Birding
- 7 Colorful Creation
- 7 Creatures of the Night
- 7 Ecosystems/Habitats
- 8 Endangered: Tragedy & Success
- 8 Foraged Ink: Chemistry & Art
- 8 Fun on the Farm
- 8 Fungus Among Us
- 9 Geology Rocks!
- 9 Growing Gardens
- 9 Honey Bees & Pollinators
- 10 Invasive Species
- 10 Live Animal Program
- 10 Living Sustainably
- 11 Mighty Microbes
- 11 Monarch Butterfly Monitoring
- 11 Monarch Butterfly Tagging
- 12 Moth Mania
- 12 Orienteering
- 12 Patterns in Nature
- 12 Predator & Prey: Energy in Ecosystems
- 13 Science Inquiry
- 13 Soil Science/Composting
- 13 Tracks & Traces
- 14 Tree Science
- 14 Water Quality Testing & Water Ecology
- 14 Weather & Meteorology
- 15 Weathering & Erosion
- 15 Wilderness Survival
- 15 Wildlife Monitoring

FALL (SEPT - NOV)

- 6 Amazing Insects
- 6 Animal Ecology
- 6 Animal Encounters
- 6 Birding
- 7 Colorful Creation
- 7 Creatures of the Night
- 7 Ecosystems/Habitats
- 8 Endangered: Tragedy & Success
- 8 Foraged Ink: Chemistry & Art
- 8 Fun on the Farm
- 8 Fungus Among Us
- 9 Geology Rocks!
- 9 Honey Bees & Pollinators
- 10 Invasive Species
- 10 Live Animal Program
- 10 Living Sustainably
- 11 Mighty Microbes
- 11 Monarch Butterfly Tagging
- 12 Moth Mania
- 12 Orienteering
- 12 Patterns in Nature
- 12 Predator & Prey: Energy in Ecosystems
- 13 Science Inquiry
- 13 Soil Science/Composting
- 13 Tracks & Traces
- 14 Tree Science
- 14 Water Quality Testing & Water Ecology
- 14 Weather & Meteorology
- 15 Weathering & Erosion
- 15 Wilderness Survival
- 15 Wildlife Monitoring

WINTER (DEC - FEB)

- 6 Animal Ecology
- 6 Animal Encounters
- 7 Creatures of the Night
- 7 Cross Country Skiing
- 7 Ecosystems/Habitats
- 8 Endangered: Tragedy & Success
- 8 Foraged Ink: Chemistry & Art
- 8 Fun on the Farm
- 9 Geology Rocks!
- 10 Live Animal Program
- 10 Living Sustainably
- 11 Maple Syruping
- 11 Mighty Microbes
- 12 Predator & Prey: Energy in Ecosystems
- 13 Snowshoeing
- 13 Tracks & Traces
- 14 Tree Science
- 14 Weather & Meteorology
- 15 Weathering & Erosion
- 15 Winter Adaptations

Ecology programs may be combined with retreats, team building or service projects to create a robust experience.

For most programs where length varies, time will determine how much is covered.

AMAZING INSECTS (30 MINS - 1.5 HRS) ☀️🍂 JUNE - MID OCT

- In this class students will:
- Receive an overview of insect structure and the varied ecological niche of insects.
 - Explore the diverse adaptations insects utilize to survive.
 - Discuss threats to insects and the effects on ecosystem services.
 - Catch, identify and categorize insects.

ANIMAL ECOLOGY (1 - 2 HRS) 🌸☀️🍂❄️

- In this class students will:
- Learn about structural differences between herbivores and carnivores.
 - Observe animal skull variations to make hypotheses.
 - Use dental codes and skull measurements to identify skulls.
 - Discover how animal fur adaptations allow for increased survival in various biome types.

ANIMAL ENCOUNTERS (30 MIN) 🌸☀️🍂❄️

- In this class students will:
- Meet the animals at the CEC and learn about the individualized care they receive.
 - Have the opportunity to hold stick bugs and hissing cockroaches.

BIRDING (30 MIN - 1.5 HRS) 🌸☀️🍂

- In this class students will:
- Learn an overview of bird anatomy and the varied ecological niche of birds.
 - Identify common birds of Wisconsin, including endangered species.
 - Discuss threats to birds throughout migration by participating in a simulation.
 - Explore the diverse adaptations birds utilize to survive through an interactive simulation.
 - Participate in citizen science research through bird identification and data collection in the field.

COLORFUL CREATION (1 HR) ☀️🍂

- In this class students will:
- Learn about different colorful adaptations in nature including the role of camouflage, mimicry and bright colors.
 - Participate in a color scavenger hunt outdoors.
 - Play a camouflage game.

CREATURES OF THE NIGHT (1 HR) 🌸☀️🍂❄️

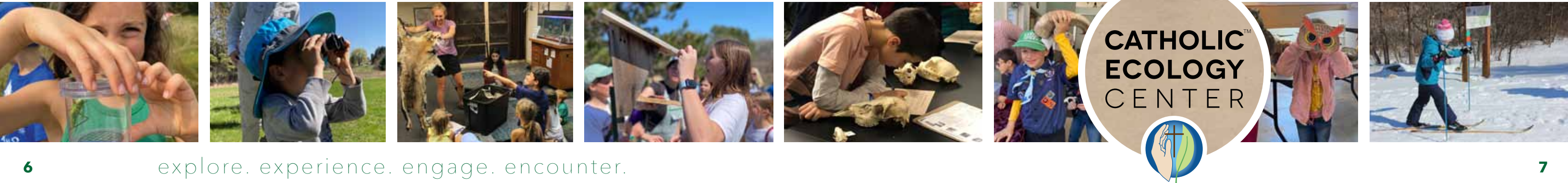
- In this class students will:
- Learn about nocturnal animals both in Wisconsin and worldwide.
 - Explore the physical characteristics unique to nocturnal animals and how these adaptations allow for their survival.
 - Discover how ultrasonic microphone equipment is used to monitor bats and how this data allows scientists to see population trends.
 - Discuss white-nose syndrome in Wisconsin and what is being done about it.

CROSS COUNTRY SKIING (1 - 1.5 HRS) ❄️

- In this class students will:
- Learn how to use cross country ski equipment.
 - Go on a guided cross country adventure to explore the ecology and beauty of the CEC winter landscape.
 - Group size dependent on sizes needed and gear availability (*general max capacity is about 12-15, although multiple sessions can happen in one day*).
 - Age range: 10 years old and up

ECOSYSTEMS/HABITATS (1 HR) 🌸☀️🍂❄️

- In this class students will:
- Learn about the characteristics of habitats.
 - Define and identify biotic and abiotic factors.
 - Visit woodland, prairie and wetland habitats on the CEC property.
 - Observe and nature journal a unique habitat at the CEC.



ENDANGERED: TRAGEDY AND SUCCESS (30 - 45 MIN) 🌸 ☀️ 🍂 ❄️

In this class students will:

- Learn about endangered species in Wisconsin and the history of their preservation and reintroduction efforts.
- Learn the common threats to endangered species.
- Discover best practices for aiding endangered species at home.

FORAGED INK: CHEMISTRY AND ART (1 - 2 HR) 🌸 ☀️ 🍂 ❄️

In this class students will:

- Learn how to identify useful plants to make ink.
- Learn the basic process of making ink.
- Experiment with mark making and color.
- Use simple chemistry to shift color.
- Go on a foraging hike and identify useful plants for making ink (*pending time*).
- Additional \$250 - \$350 fee depending on class length and size.
Pending facilitator's availability.

FUN ON THE FARM (45 MIN- 1 HR) 🌸 ☀️ 🍂 ❄️

In this class students will:

- Learn about the importance of farming and the role it plays in their daily lives.
- Visit Clare Gardens to see the growing in action (*may be limited due to season*).
- Visit and get the chance to meet our farm animals including: chickens, pigs and goats, and learn about their care.
- Visit the bee hives on the property to learn about beekeeping and the role of pollinators (*interaction may be limited due to season*).

FUNGUS AMONG US (45 MINS - 1.5 HRS) 🌸 ☀️ 🍂 MAY - OCT

In this class students will:

- Learn the anatomy, structure and function of fungi and their important role in Wisconsin ecosystems.
- Learn basic mushroom identification and safety for foraging in the field while taking part in guided mushroom foraging.

GEOLOGY ROCKS! (45 MIN - 1.5 HRS) 🌸 ☀️ 🍂 ❄️

In this class students will:

- Distinguish among three different types of rocks: igneous, metamorphic and sedimentary, and examine examples of each.
- Learn about the rock cycle and how rocks and minerals can change from one type to another.
- Play a game where they simulate the rock cycle.
- Test and identify rocks and minerals, using various tests such as hardness tests, streak tests, acid tests, and examining crystal form and luster.
- Learn about caves and the various types of processes used to form them.

GROWING GARDENS: (45 MIN - 1 HR) 🌸 ☀️

In this class students will:

- Tour Clare Gardens organic farm and greenhouse at the CEC and learn how they grow thousands of pounds of organic produce each year.
- Learn about requirements of various vegetable plants and plant their own vegetable seeds to take home.
- Tour the Holy Hen House to learn about raising sustainable chickens.
- Visit the Holy Honey Beehives and learn about bee ecology and making honey.
- Learn the importance of composting and how to do it at home.

HONEY BEES AND POLLINATORS (30 MIN - 1 HR) ☀️ 🍂

In this class students will:

- Receive an overview of honey bee structure and their importance as pollinators.
- Learn the work structure and yearly cycle within a beehive.
- Discuss threats to the honey bee and greater pollinator populations.
- Participate in a simulation to demonstrate the effects of pesticides, habitat loss and pests.



INVASIVE SPECIES (30 - 45 MIN) 🌸 ☀️ 🍂

In this class students will:

- Define native and non-native invasive species and discover their adverse effects and strategies for success.
- Learn an overview of invasive species in Wisconsin and their history of introduction as well as control efforts.
- Participate in a simulation to demonstrate the effects of invasive species on an ecosystem.
- Identify invasive species in the field and help with their removal. *(pending time allotted and time of year)*

LIVE ANIMAL PROGRAM (1 HR) 🌸 ☀️ 🍂 ❄️

In this class students will:

- See the live animals that make up Wisconsin ecosystems including mammals and birds of prey like hawks and owls.
- Discover the amazing adaptations that make Wisconsin birds and mammals suited for their ecological niches.
- Learn about wildlife rehabilitation and how to care for creation in your everyday life.
- *Additional \$175 fee. Pending facilitator's availability.*

LIVING SUSTAINABLY (45 MIN - 1.5 HRS) 🌸 ☀️ 🍂 ❄️

In this class students will:

- Learn the importance of composting and how to do it at home.
- Study the life cycles of common household items and their effects on the environment.
- Understand various sustainable food practices and how to make food choices that are good for human health and the environment.
- Learn to apply environmentally friendly practices in their own lives and how our faith calls us to be stewards of creation.

MAPLE SYRUPING (1 - 1.5 HRS) ❄️ 🌸 *ONLY MID FEB - LATE MARCH*

In this class students will:

- Identify various tree species and learn the anatomy and physiology of trees as it relates to sap flow.
- Tap trees and collect sap for maple syrup.
- Discover the history and process of syrup making.

MIGHTY MICROBES (1 - 2 HRS) 🌸 ☀️ 🍂 ❄️

In this class students will:

- Learn about common characteristics of microbes, what they are, what they do and how they can be both helpful and harmful.
- Examine organisms under the microscope.
- Go on a hike to find different examples of microbes at work on the CEC property.
- *Optional with additional cost:* Set up their own petri dish to bring back to the classroom and observe bacterial growth over the coming days.

MONARCH BUTTERFLY MONITORING (1 HR) ☀️

In this class students will:

- Learn the life cycle, host plants, food sources and migration patterns of monarch butterflies.
- Discuss threats to the monarch population.
- Learn to find monarch eggs, caterpillars and adults and raise them at home.

MONARCH BUTTERFLY TAGGING (1 HR) ☀️ 🍂 *MID AUG - EARLY SEPT*

In this class students will:

- Catch and tag monarch butterflies on their way to Mexico to assist scientists in tracking their migration and population.

*Let the earth bless the Lord;
let it sing praise to him and highly exalt him forever.*

Daniel 3:74



MOTH MANIA (1 HR) ☀️🍂 JUNE - LATE SEPT

- In this class students will:
- Learn the identifying characteristics of moths.
 - Discuss their nocturnal, diurnal and crepuscular habits.
 - Utilize a live trap to observe moths found on the CEC property (*evenings only*).
 - Participate in a simulation to demonstrate moth/bat interactions.

ORIENTEERING (30 - 45 MINS) 🌸☀️🍂

- In this class students will:
- Learn how to use a compass for directional and degree bearings.
 - Apply compass skills in the field.
 - Demonstrate understanding of using a compass through a scavenger hunt activity.

PATTERNS IN NATURE (1 - 1.5 HRS) ☀️🍂

- In this class students will:
- Learn about different patterns that are found in nature including symmetry, spirals, tessellations, fractals and the Fibonacci sequence.
 - Find examples of each kind of pattern on the CEC property.
 - Create a pattern based craft.

PREDATOR AND PREY: ENERGY IN ECOSYSTEMS (1 - 3 HRS) 🌸☀️🍂❄️

- In this class students will:
- Learn about the energy pyramid in ecosystems.
 - Make observations of animal adaptations determined by energy source.
 - Take part in a predator/prey simulation to measure population changes and demonstrate the effect of limiting factors (both density-dependent and density-independent).

SCIENCE INQUIRY (1 - 2 HRS) 🌸☀️🍂

- In this class students will:
- Learn the steps of the scientific method.
 - Demonstrate understanding of isolating variables when creating experiments in the field.
 - Option to measure and calculate animal and plant populations using quadrat and extrapolation.
 - Apply the scientific method to bird and habitat transect observations.

SNOWSHOEING (1 - 1.5 HRS) ❄️

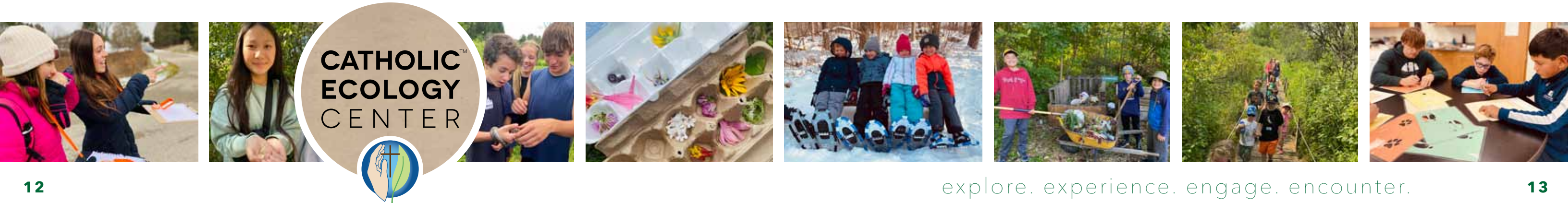
- In this class students will:
- Learn how to use snowshoeing equipment.
 - Go on a guided snowshoe hike to explore the ecology and beauty of the CEC winter landscape.
 - Group size dependent on sizes needed and gear availability (*general max capacity is about 12-15, although multiple sessions can happen in one day*)
 - Age range: 6 years old and up.

SOIL SCIENCE/COMPOSTING (1 HR) 🌸☀️🍂 APRIL - OCT

- In this class students will...
- Learn about characteristics of different types of soil including permeability, composition, porosity and saturation.
 - Participate in a demonstration where they learn about the filtration effects of soil.
 - Discover many of the important roles that soil plays in an ecosystem.
 - Take soil samples on CEC property.
 - Learn about composting and visit our vermicompost (worms) station.

TRACKS AND TRACES (1.5 HRS) 🌸☀️🍂❄️

- In this class students will:
- Identifying categories of animal tracks and patterns used for animal identification.
 - Apply classification of animal tracking in the field.
 - Identify other evidence of animal activity including galls, scat, burrows and nests.



TREE SCIENCE (2 - 2.5 HRS) 🌸 ☀️ 🍂 ❄️

In this class students will:

- Learn the anatomy and physiology of a tree and how different aspects work together to sustain life.
- Measure the ages of trees using tree rings, tree whorls and core samples.
- Utilize tree ring measurements to indicate the history of the surrounding environment throughout time and correlate growth with abiotic factors.
- Analyze tree growth, height and soil types as part of an ecological study.
- Identify several different trees on the CEC property using key features like bark, needles and leaves.

WATER QUALITY TESTING AND WATER ECOLOGY (3 - 5 HRS) 🌸 ☀️ 🍂
MARCH - OCT

In this class students will:

- Understand the distribution of Earth’s water and importance of clean water.
- Collect and evaluate water samples for pH, dissolved oxygen, temperature and turbidity while discovering how these physical tests interrelate and serve to evaluate water quality.
- Catch, identify and categorize aquatic macroinvertebrates and evaluate their role as biological indicators.
- Brainstorm ideas as to how they can reduce water waste in their lives.

WEATHER AND METEOROLOGY (45 MIN - 1.5 HRS) 🌸 ☀️ 🍂 ❄️

In this class students will:

- Learn about cloud types, create a chart and identify clouds outside.
- Learn about and collect data used in a weather report including temperature, humidity and wind speed.
- Identify natural markers that may indicate a shift in weather including animal and plant behavior.
- *Optional:* Demonstration on high and low pressure systems and/or cloud formation.

WEATHERING AND EROSION (1 - 1.5 HRS) 🌸 ☀️ 🍂 ❄️

In this class students will...

- Participate in simulation stations to observe how different types of weathering may change landscapes.
- Find instances of weathering and erosion on CEC property.
- Use water and sand (or snow) to recreate and experiment with how water can change a landscape over time.

WILDERNESS SURVIVAL (1 - 5 HRS) 🌸 ☀️ 🍂

Choose one or a combination of the following skills to work on during this class:

- Make shelters out of raw materials
- Find and filter water
- Identify wild edibles (varies by season)
- Make rope cordage
- Build a fire from flint and steel
- Basic wilderness first aid
- Orienteering

WILDLIFE MONITORING (2 HRS) 🌸 ☀️ 🍂

In this class students will:

- Utilize wildlife monitoring techniques which may include: snake boards, nest boxes, small mammal live traps and minnow funnel traps.
- Calculate species diversity, abundance and distribution.
- Learn how species are used as biological indicators of ecosystem health.

WINTER ADAPTATIONS (1 - 1.5 HRS) ❄️

In this class students will:

- Learn about different strategies animals employ to stay alive during the winter including migration, hibernation and overwintering.
- Participate in an interactive hike while simulate techniques animals use to stay warm.
- Examine different animal pelts to compare warm vs. cold habitat coverings.



Reserve Your Experiential Program

Want to combine an ecology program with elements of a retreat, team building or service project?

Have questions about schedule or pricing?

CONTACT OUR PROGRAM COORDINATOR

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