Ecosystem Terrarium
By: Justin Heslinga
Student Research Assistant

One of the highlights of a visit to the Bunker Interpretive Center is the 150 gallon terrarium, which houses 4 species of frogs and a painted turtle, all native to Michigan. The terrarium was built by two students over the summer, and the animals were collected from the preserve by summer staff. The plants in the terrarium include a variety of native grasses, but we are still experimenting with which plants will grow best indoors. The frogs eat fruit flies and crickets, as well as insects and earthworms collected around the preserve. During the winter, the animals in the terrarium follow their normal biological patterns: their metabolism slows, and they don’t eat or move around very much. But signs of spring are already showing — last week preserve staff heard one of the tree frogs trill. Across the hallway from the terrarium is an aquarium that contains fish collected from the ponds on the preserve last summer. As spring comes and the animals around the preserve start becoming active again, we hope to add to the collection of native animals in these living displays so visitors can see some of the native fauna found in our area up close.

Bird Migration Through the Preserve

By: Bill Sweetman

Many of the early migrants have already returned; American Robins, Red-winged Blackbirds, Eastern Bluebirds, Killdeer, Song Sparrows and Eastern Phoebes are already foraging our woods and fields. Great Blue Herons, Mallards, Black Ducks, Wood Ducks and Hooded Mergansers use our now ice-free ponds. But in terms of migration, what has happened so far is merely a shadow of what is to come.

From the first of April until early June literally millions of migrating birds will pass over our local area. Fields and woodlands like the Calvin Ecosystem Preserve provide vital feeding and resting areas as these birds press north to their breeding grounds. One such example is the Ruby-throated Hummingbird. These tiny birds, which arrive here around May, winter in Mexico and Central America. Breeding locally and well north of Grand Rapids, their success in a migration journey spanning thousand of miles depends on areas such as the preserve.

You are invited to enjoy the wonderful pageant of spring bird migration with us. Bird and animal observations are posted daily in the Bunker Interpretive Center for your benefit and for you to add to.
Educational Programs

Fall Season Education Programs Re-cap

By: Andrea Voss

This fall season brought many exciting new adventures at the Bunker Interpretive Center. As tour guides led groups through the preserve on educational tours, students discovered new things about using their senses, as well as about plants, animals, habitats, watersheds, and rocks. Students were also able to enjoy the beauty found in the preserve through the changing colors of the trees. At times, creatures were found in the preserve, including white-tailed deer, garter snakes, and a lot of chipmunks. These fun and age-appropriate programs allowed for the students to enjoy nature while they were learning about it. Most tours have booklets which the students either fill out during the tours or on their own time; this enhances the learning that occurs while they come to visit the Ecosystem Preserve.

We welcomed students at the Preserve during nine weeks in the fall, from September 19th through November 18th. During this year’s fall season, forty-two groups from eighteen schools and one home school group came. There are a variety of offerings for grades K-5, of which, the Kindergarten program “The Five Senses” was the most popular with twelve groups participating. In total, 958 people came to the Bunker Interpretive Center for the educational programs and 130 people came as outside groups through a special request.

We want to give thanks to Marge Hoogeboom, Tim Tyson, Laura Hoekstra, Bill Sweetman, and Carole Gaiser who volunteer at the Interpretive Center. Also, thank you to the sixteen students who worked as tour guides. All of these people put in a lot of work to make this fall session run smoothly and it would not have been possible without them.

Summer Program Schedule

Wetlands & Woodlands Camp
Campers will discover the diversity of life in wetlands and find out how everyone is connected to a watershed. Campers will look for and learn about insects and other things that creep and crawl in the soil, air, and water.

- See nature close-up in woods, wetlands, and fields
- Learn about animals and their habitats
- Discover how to re-use objects for nature study
- Create crafts with a nature theme

Registration will be taken through the Thursday of the week prior to the start of a session. Call Cheryl Hoogewind for information (616) 526-7601.

The cost for each child is $80 and checks or money orders can be made payable to Calvin College.

Registration forms are available at the Bunker Interpretive Center and completed forms and checks can be sent to:

Wetlands & Woods Camp
Bunker Interpretive Center
1750 E. Beltline Ave., SE
Grand Rapids, MI 49546-5949

<table>
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<tr>
<th>Dates:</th>
<th>Age Groups</th>
<th>Themes</th>
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<tr>
<td>June 19-23, 2006</td>
<td>4-5 years old</td>
<td>Our wet wild world</td>
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<td>9:00am– noon</td>
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<tr>
<td>June 26-30, 2006</td>
<td>6-8 years old</td>
<td>Our wet wild world</td>
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<tr>
<td>July 17-21, 2006</td>
<td>4-5 years old</td>
<td>Insects and creepy crawlies</td>
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<tr>
<td>July 24-28, 2006</td>
<td>6-8 years old</td>
<td>Insects and creepy crawlies</td>
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<td>9:00am– noon</td>
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First Saturdays in the Preserve

Every first Saturday of the month, we have a program that is free and open to the public. Advance registration is encouraged, but is not required. If you have any questions, contact us at: (616) 526-7601 or preserve@calvin.edu

April 1, 2006
10:00-11:00 AM,
“Gardening Adventures”
Featuring Myrna Anderson, staff writer for Calvin College and Laura Hoekstra, a landscape designer from Colorful Yards.
—> Learn some gardening tips and plan a garden of your own.

May 6, 2006
8:30-10:00 AM,
“Spring Migration in the Ecosystem Preserve”
Led by Bill Sweetman, a member of the Audubon Society.
—> Learn more about birds that fly through our area in the spring.
* Limited to ages 10 and older; no more than 20 people*

June 3, 2006
10:00-11:00 AM,
The Fred Knapp Trio
—> One of West Michigan’s finest jazz trios brings us a fun concert for all ages

Park or Preserve?

Since its inception, development and the use of the Ecosystem Preserve have sought to achieve four objectives:

1. To preserve a complex of West Michigan habitats (i.e. the ecosystem) on the site in the face of increased urbanization of the surrounding area;
2. To maintain the area as an academic and aesthetic resource for study by college courses and for individual research;
3. To provide a passive recreational resource for the Calvin College community;
4. To provide an educational and recreational resource for the larger community of southeast Grand Rapids.

So why is the Ecosystem Preserve called a preserve and not a park?

A park is a tract of land set aside for recreation, sports, or other human-centered activities. A preserve is a place set apart to maintain and protect natural ecosystems and the wildlife they contain.

The Ecosystem Preserve is a preserve, not a park. It was established to maintain examples of West Michigan ecosystems in a way that visitors can still study and enjoy them. Human beings are not the primary focus of this preserve; the creatures and the habitats of this part of creation take precedence. Therefore, we ask that you would please help us preserve the natural sights and sounds of the Ecosystem Preserve by observing the following rules while visiting:

• No dogs or other pets
• No running or jogging
• No bicycles or other vehicles
• No cross-country skiing or snowshoeing
• No large groups or loud activities

Thank you!

Seasonal Recipe

Barley and Lentil Stew

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<tr>
<th>Ingredient</th>
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<tr>
<td>1/2 cup lentils</td>
<td>1/2 cup chopped celery</td>
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<tr>
<td>1/4 cup butter</td>
<td>2 1/2 cups chopped tomato</td>
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<tr>
<td>1/3 cup whole barley</td>
<td>1 Tbsp Liquid Aminos (salt)</td>
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<tr>
<td>1/4 tsp black pepper</td>
<td>2 tsp crushed rosemary</td>
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<tr>
<td>2 cups vegetable stock</td>
<td>1/2 cup shredded carrots</td>
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<tr>
<td>1/4 cup chopped fresh parsley</td>
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Soak lentils in water several hours to shorten cooking time, if desired; drain. Meanwhile, in a large pan sauté celery in butter for 5 minutes. Add remaining ingredients except carrots, bring to a boil, cover and simmer for 30 minutes, stirring occasionally. Add carrots and cook 5 minutes longer. (Fresh mushrooms if available make another good last-minute addition). Serves 4
Calvin College Ecosystem Preserve

Come Visit Us!

Hours of operation:
The ecosystem preserve:
7am-dusk
The Bunker Interpretive Center:
9am-5pm from M-F
10am-2pm on Saturday

Call in for information:
Phone: (616) 526-7601
E-mail: preserve@calvin.edu
And visit our website at:
www.calvin.edu/academic/bunker

Map of Ecosystem Preserve Trails.
The full loop trail is 0.75 miles in length.
Visit the Bunker Interpretive Center to pick up information such as lists of birds and mammals that live in the preserve as well as information about native plant landscaping.
Parking is available north of the Preserve entrance.

Springtime in the Preserve

What can you find in the Ecosystem Preserve now?

*Wood Ducks, Hooded Mergansers, Eastern Phoebe, Eastern Bluebirds (building a nest), Killdeer
*Muskrats swimming in the ponds, Spring Peepers chirping outside and in the terrarium

*A pair of Great Horned Owls who are nesting and whose chicks will be coming out of the nest soon

*Wildflowers will be emerging as the weather gets warmer. Look for Trout Lily, Trillium, Spring Beauty, Canada Mayflower, Toothwort, and Pennsylvania Sedge

*Warbler migration begins in late April or early May. Come to the preserve then to see warblers, vireos, orioles, Scarlet Tanagers, and Rose-Breasted Grosbeaks.

Parking
Lot

Calvin College
Ecosystem Preserve
1750 East Beltline Ave. SE
Grand Rapids MI 49546-5949