

Spring/Summer 2011

# sanctuary

A Newsletter of The Ridges Sanctuary



Research



*The mission of the Ridges Sanctuary is to protect the Sanctuary and inspire stewardship of natural areas through programs of education, outreach and research.*



Photo by Paul Burton

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Cover photo of Calico Pennant dragonfly by:  
Paul Burton

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# From the Rangelight

## Research and Citizen Scientists

In our last newsletter, we emphasized the need for "Sustaining Lasting Connections" – the need to make informed decisions today so the Sanctuary lasts forever. To make these decisions, The Ridges Sanctuary has always supported research to develop an understanding to guide our decisions starting with the first flora survey (research) in 1935.

*"It's not just any natural area, it is the most biologically diverse and picturesque natural area in Wisconsin."*

The first survey was done by George Sieker for his master's thesis on the "The Bogs in Door County" and Albert Fuller surveyed the orchids and wildflowers on the ridges and swales. It gave our founders like Albert Fuller, Olivia Traven, Emma Toft, and others the knowledge to take action - to save the original forty acres. Ever since then, research projects have been supported by many universities to further our understanding of what makes The Ridges Sanctuary so unique: Flora Surveys; Breeding Bird Survey; Amphibian/Salamander Survey; Ram's Head Orchid Study; Aging of the Ridges and Swales; Butterfly Survey; Mapping the Ridges' Watershed; Hine's Emerald Dragonfly Survey; Importance of Cyanobacteria; and more... It's not just any natural area, it is the most biologically diverse and picturesque natural area in Wisconsin.

As children, we've all explored the outdoors – our curiosity got the best of us. We would turn over a rock and watch the ants scurry around protecting their homes - that was research. As we watched birds, frogs, snakes, and other animals and made guesses about what they were doing or where they were going – that was research. As children, we've all had experiences of discovery and learning that developed many connections and an appreciation for the natural world – for The Ridges Sanctuary.

Our natural connections, those personal stories of exploring the outdoors, are why



so many of us continue to help The Ridges Sanctuary and other natural areas in our own communities. People like you and I participate in scientific research as citizen scientists all the time. Ridges' volunteers help monitor frog populations, check streams for water quality, conduct bird and crane counts to determine species diversity and populations, and map invasive species populations as well as native plant populations. The Ridges Sanctuary is connecting with scores of volunteers who are involved in research at The Ridges Sanctuary and throughout Door County.

To support our research initiatives in citizen monitoring and provide a meaningful, learning experience, The Ridges Sanctuary is developing plans for a new interpretive center. We've spent several years investigating how best to build a new facility without impacting the most ecologically sensitive area of the Sanctuary – the original forty acres and the ridges and swales we've all come to treasure.

This summer, we will share with you our direction on the best, most efficient building for The Ridges' new facility and direction of The Ridges Sanctuary as a center for environmental stewardship. I look forward to sharing our vision with you.

Steve Leonard  
Executive Director  
steve@ridgessanctuary.org

# Quick Notes

## First in Our Hearts

Lee Traven was nominated for the Volunteer Center's Golden Heart – Lifetime of Service award. Lee has been involved with The Ridges Sanctuary since he was a little tot following his mom to Board meetings. We owe many thanks to Lee for his dedication to The Ridges that is exhibited in the many hours of volunteer time he donates each year.

## Flea Market Tickler

Last year's Flea Market raised over \$1,000 for The Ridges' operating fund. If you have any usable items (no furniture, electronics, clothing, or exercise equipment) please save them for our Flea Market this September 17. No room to store stuff – call us and we will try to work something out!

## 2nd Round and a'Round for The Ridges

**Food – Music – Fun – and the Best Silent Auction in Door County!** That what's in store for you at the Alpine's Yodel Inn on Sunday July 10 at 5:30 PM. Lots of wonderful donations are coming in from Door County businesses and artists. If you like to golf – there will be a 9-hole Scramble starting at 3:30 on the Alpine's upper nine! This is our BIG fundraiser for the year!

## The Ridges in Print!

Pick up a Philanthropy Issue of the *Door County Living* magazine. Pages 22 & 32 are focused on The Ridges Sanctuary. The article by Mariah Goode features historical background and the current programs of the Sanctuary.

## More Cookouts = More Connection

The Staff & Board are sponsoring five cookouts instead of one picnic this summer for volunteers AND members. We will supply the burgers, beverages and chips and we ask participants to bring something to share and their own table service. The hope is to connect with more of our members and volunteers. Please come to one or all: May 18, June 15, July 20, August 17, September 21 - all are from 11:30 AM to 1 PM.

## No Family Left Inside

Our program to get families outside exploring nature has been a huge success! Each of the programs had enthusiastic participants who enjoyed the natural areas of The Ridges – Some were across the highway in areas that are more disturbed and can accommodate kids going off the paths. The Door County Community Foundation – Green Fund provided partial funding. Watch for more outings this summer as we expand the program to one day a week during the summer with FunDay/Mondays!

## Early Birders Club

The first meeting of the Ridges' Early Birders Club drew a group of 17 kids with their families who are interested in learning more about the avian world around us. Meetings will usually be held the second Saturday of the month and will feature activities, crafts, snacks, presentations and other offerings to help us understand the colorful and active world of birds. Startup costs for the fledgling group are supported by the Raibrook Foundation and Willard Hartman.

## Moon Walks

Last year's moon walks were so popular, we are offering three this summer; June 15, July 13, & August 17 (all at 8 PM). Join the naturalist and experience the special sights and sounds of a summer evening.

## Discovery Bird Hikes and Not So Early Bird Hikes

The Ridges/Mud Lake area is a popular spot with birds and thus a popular spot for birders. The **Discovery Bird Hikes** are open to all abilities of birders with the idea of "let's learn together". Saturdays – May 14 & 21 and June 4 – through July 30 at 6:30 AM.

If you have trouble getting up to greet the dawn – consider the **Not So Early Bird Hikes** that start at 9 AM on May 14, June 11, July 9, & August 13.

*A young birder investigating hummingbirds.*



## The Wednesday Crew as a Salvage Crew

The intrepid Wednesday Crew has been busy this winter taking apart two dilapidated cabins on property The Ridges purchased on Highway Q. The crew is salvaging whatever they can. Some of the material went to make bluebird houses and other projects at The Ridges. What couldn't be used here was taken to the local Habitat for Humanity's ReStore.

## Memories of The Ridges

Share recollections of The Ridges Sanctuary from last summer or fifty years ago. Did you skate on the swales in winters past, build bridges, hike the paths with friends, or find solitude in its beauty? Don't leave these memories in your past.

If you share them they will live on in others' memories. The Ridges Sanctuary invites its friends and neighbors to participate in The Ridges' Memories Project, a collection of stories, remembrances, and reflections that relate the cultural history of The Ridges Sanctuary and celebrate the natural beauty and spirit of the land and community. This project will represent a history through the gathering of stories told by the voices of community members and visitors who have shared a common enjoyment and appreciation for this special place over the years.

No special writing skills are needed, only a willingness to reflect and then share in one form or another, what you remember, value, or

## 75th Anniversary in 2012

The Ridges Sanctuary will celebrate 75 years of education, preservation, and research. It is still vibrant with plans to improve its programming and projects. Send us your ideas for celebrating this milestone for the oldest non-profit nature preserve in Wisconsin and the most biodiverse area in the Midwest.

hope to preserve about The Ridges Sanctuary. Everyone who submits a memory or photo will have their name entered in a drawing for one of ten of the published books coming out in early 2012 for The Ridges' 75th Anniversary year. Deadline for submissions is June 1st, 2011.

Submit three lines or three pages. Poetry, sketches, and photos are also sought. We will return any photos that need to be scanned.

Contact Cathleen Haskins, volunteer coordinator for the Memories Project, 262-949-4617. Please submit electronically if you are able. [cathleenhaskins@yahoo.com](mailto:cathleenhaskins@yahoo.com). Or send hard copies to: Cathleen Haskins at PO Box 63, Baileys Harbor, WI 54202



# Summer is The Ridges' Showtime

by Paul Burton

The Ridges Sanctuary/Mud Lake area is a mecca for dragonfly watchers, not only because it is prime habitat for the endangered Hine's Emerald Dragonfly (*Somatochlora hineana* – Fig. 1), but also because many different kinds of dragonflies can be seen. The “hunting” season is from May through early October, although Hine's Emeralds are only seen from June through early August.

A main difference between bird and dragonfly watching is that dragonflies are smaller but just as colorful and often allow the viewer to watch them up close for long periods. Birds are mostly straight-line fliers but they are masters of aerobatic maneuvers. How often do you see a bird fly upside down or do a barrel roll or loop-the-loop?

For dragonfly watching a good pair of close-up binoculars is helpful. If you want extra incentive to watch dragonflies, take along a camera with at least a 200 mm telephoto lens. You would be surprised at the colorful images you can obtain with a

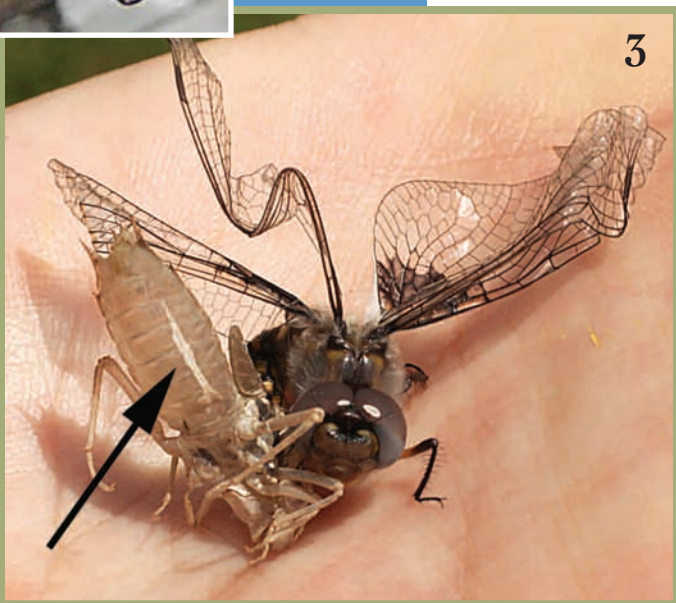
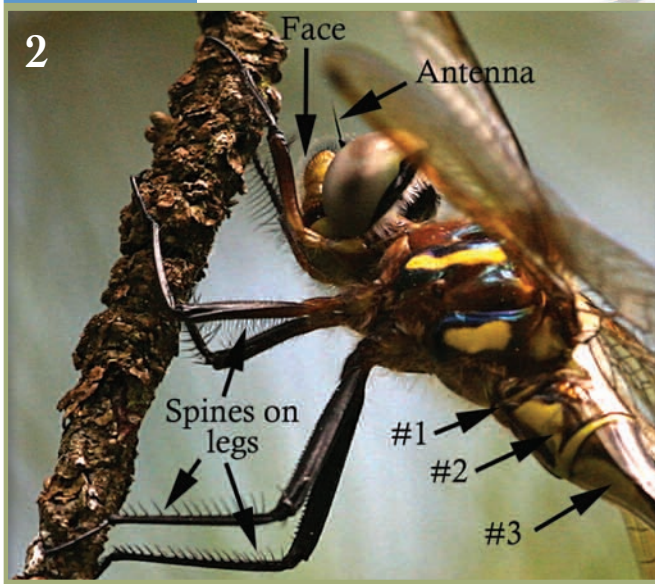
digital camera with a long lens. Sometimes a dragonfly will even pose for you — I have gotten to within 2-3 feet of certain dragonflies and I could see their heads move as they watched me. No doubt their large eyes were recording my image as I attempted to capture theirs. During one of my first dragonfly outings, an emerald dragonfly landed briefly on the end of my telephoto lens!

A dragonfly body is divided into a head, thorax, and long abdomen. The eyes, mouthparts, and antennae are part of the head. The thorax is divided into three segments, each stuffed with large muscles to operate the wings (a pair on segments 2 and 3) and the legs (a pair from each segment). Yellowish stripes on the sides of the second and third thoracic segments are characteristic of the Hine's

Emerald species (Figs. 1 and 2). The legs have sharp spines which help capture and convey prey to the mouth and jaws. Figure 2 shows the anterior end of a Hine's Emerald female. The first three segments of the abdomen are shown by the numbers. A dragonfly's abdomen is a counterbalance to the heavier front end of the body with its forward positioned legs.

The life-span of an adult dragonfly is typically brief, often only a couple of weeks. Most of their life is spent as an aquatic larva (or “nymph”). The larvae feed, grow, molt their rigid skins, grow some more, etc., until they reach sufficient size to crawl out of the water, free themselves from their larval exoskeleton and become adults. Figure 3 shows a Common Baskettail dragonfly (*Epiheba cynosura*) that has just emerged from its larval exoskeleton (arrow). It is shown waiting for its wings to dry and straighten out before flying away to eat and reproduce. Note the larvae of the Hine's Emerald dragonfly live for about three and a half years before emerging as adults.

The first dragonfly to appear in the spring, sometimes even in April, is the Common Green Darner (*Anax junius* – Fig. 4)).





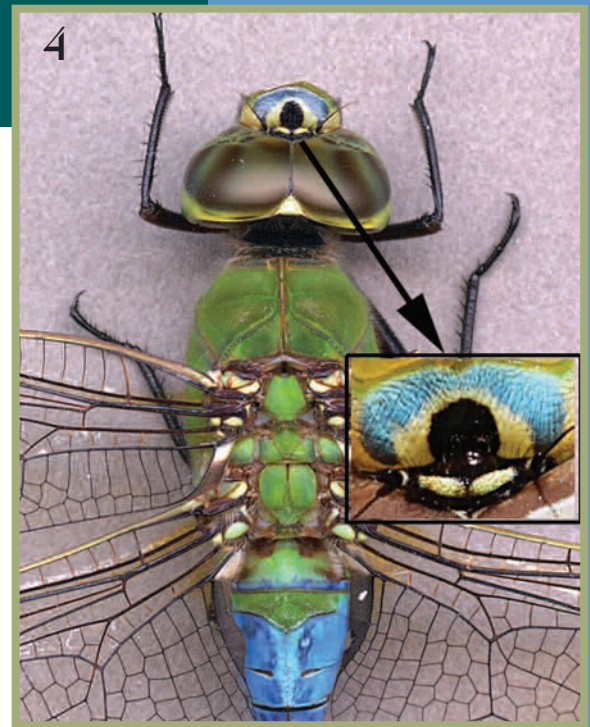
# for Dragonflies

These are strong-flying migrants from the south. Their bodies are about three inches long and their thorax is green; males have blue abdomens. These are beautiful dragonflies with a characteristic bulls-eye pattern on top of the head (Fig. 4).

Another dragonfly I enjoy seeing is the Wandering Glider (*Pantala flavescens* – Fig. 5). It has a yellowish-orange body and broad hindwings that make it a strong and agile flyer. This species is noted for making long migrations of several hundred miles. Often they are seen in swarms feeding over fields.

Figures 6-8 show a few of the more commonly seen dragonflies in the area. A favorite is the Chalk-Fronted Corporal (*Ladona Julia* – Fig. 6), which first appears at the Ridges near Solitude swale. Males are identified by the white “back-pack” on top of the thorax and a splash of white at the front end of the abdomen. Another often seen dragonfly is the Widow Skimmer (*Libellula luctosa* – Fig. 7). The base of the wings have a black band, and the males have additional white bands beside the black (see figure 7). Color comes in small packages as exemplified by the tiny Calico Pennant (*Celithemis elisa* – Fig. 8). With a body only about 1.2 inches long, its wings are characterized by subtle rusty-red patches, with a large patch at the base of the hindwing. Males have triangular red spots along the top of the abdomen.

The dragonflies described above are a small sample of those seen in the area. For example, in addition to the Hine’s Emerald, there are three or four other kinds of emeralds that might be seen. The Common Green Darner is not the only Darner cruising the Ridges and over twenty other kinds of dragonflies await the dragonfly watcher. When you go on a dragonfly hike, take along a good guidebook and begin to record the kinds you encounter. Better still, take a photograph of what you see and begin a collection of “common dragonflies” of The Ridges/Mud Lake area.



**Paul Burton** has been searching out dragonflies since moving to Door County in 1991. In that time, he has studied and photographed the many varieties of dragonflies that haunt the ridges and swales. The Ridges Sanctuary's Nature Center carries Paul's book of *Common Dragonflies of Northern Door County* illustrated with his beautiful photographs. On July 7 & 8, Paul will present a "Lake Lesson" on Dragonfly Drama on Thursday evening followed by an "in the field" dragonfly workshop on Friday morning. Call 920.859.2802 to sign up for Friday's workshop.



# The Ridges Elects To “Go LEED” For New Interpretive Center Building

The Ridges Sanctuary board has elected to use the US Green Building Council's (USGBC) process called Leadership in Energy and Environmental Management (LEED) as a process for completing a sustainably-designed, built, and operated building. By pursuing a LEED certified building, The Ridges Sanctuary will stand as an example for our greater community while minimizing the building's impact to Door County.

The USGBC is a Washington D.C. based 501(c)3 nonprofit organization. It is committed to a prosperous and sustainable future for our nation through cost-efficient and energy-saving green buildings and managing sustainable sites where the buildings exist. USGBC has adopted the triple bottom line of sustainability – community, environment, and economy.

LEED certification is a voluntary, consensus-based national rating system that includes over 32,000 projects. LEED levels are achieved by satisfying prerequisites and achieving optional points for each of the LEED categories that include Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials & Resources, Indoor Environmental Quality, Resources, Indoor Environmental Quality, Innovation in Design and Regional Priority. The certification levels include Certified (40-49pts), Silver (50-59pts), Gold (60-69pts), and Platinum (80pts), out of a total of 110 points.

LEED is not just about the building; it includes the land, the building, and the community working together to improve quality of life in a sustainable way. The entire project is developed using a team approach, involving the architects, builders, property owners, and community stakeholders. These team members collaborate on innovative approaches to the design, building, and protection of the project and its surroundings.

Using LEED aligns directly with The Ridges Sanctuary's mission “to protect the Sanctuary and inspire stewardship of natural areas through programs of education, outreach and research.” This includes the environment (sustainable land stewardship, and ecological preservation and protection), community (education, visitor experience, connections to the community, research, a sense of place), and economy (financially positive operations and management, employment, and fund-raising direction, examples for businesses and homes).

The benefit of using LEED includes green and sustainable practices that fulfill The Ridges Sanctuary's mission. A survey of 146 LEED-certified buildings showed that capital expenses were less than 2% higher than conventional constructed buildings (USGBC Manual). Other surveys have shown that for building operations LEED results in significant savings, such as an average 26% less energy use, 13% lower maintenance costs, 33% lower CO2 emissions (U.S. General Services Administration).

The use of LEED by The Ridges Sanctuary is groundbreaking in Door County and will result in a building and site that stands as an example of cost-effective sustainable practices, an interpretive and educational center, and a place of beauty and pride for the community.





Roger Kuhns





**What LEED measures:** 7 Main Categories (+more)



 <b>Sustainable Sites</b>	 <b>Location &amp; Linkage</b> (for schools & homes)
 <b>Water Efficiency</b>	 <b>Awareness &amp; Education</b> (for schools)
 <b>Energy &amp; Atmosphere</b>	 <b>Innovation in Design</b>
 <b>Materials &amp; Resources</b>	 <b>Regional Priority</b>
 <b>Indoor Environmental Quality</b>	

## Nature Notes

-  Snow came relatively late to The Ridges – the first measurable snowfall came in early December.
-  Our first blizzard arrived just as the Natural Christmas event was wrapping up. By the next morning we had received about a foot of snow.
-  In late December and early January, large flocks of Bohemian waxwings were being reported in Sister Bay and other areas.
-  On February 7, a Hermit thrush was spotted feeding on Bittersweet berries at the Nature Center.

-  Robins, Sandhill cranes and Eastern bluebirds were returning to Door County by mid March.
-  Most of the snow was gone by mid March. However, a big storm on March 23 changed that overnight - over a foot of heavy, wet snow.
-  First flowers of Dwarf Mistletoe were open on March 30.
-  On a quick hike on April 13, the wildlife was abundant. We saw a pair of Sandhill cranes, three Hooded Mergansers, two deer, a Snowshoe hare AND heard Wood frogs 'quacking'. Lots of buds on the Trailing arbutus also!

Wood Frog



## The Secret life of Ants! by Marge Trocki

Ants are team players. Have you ever wondered what goes on underground in their colony? Build your own "ant home" and find out for yourself!

### You will need:

- A large glass jar with a lid
- A smaller glass jar with a lid, to fit inside the larger jar, allowing about 1 inch of space between the two
- Ants and soil
- Sand
- Cottonball
- Honey or sugar
- Two pieces of dark colored construction paper
- Tape
- Markers or crayons

### Here's what you do:

1. Put the lid on the smaller jar and place it inside the larger jar.
2. Locate some ants outside. Try to find some larger ants, or a queen ant with wings, along with eggs and larvae. Scoop them up with some surrounding soil and place into the space between the two jars.
3. Fill the rest of the larger jar with sand and mix gently with the soil.
4. Wet the cottonball and place on top of the soil mixture to provide them with water.
5. Place a small bit of honey or sugar on top of the soil mixture.
6. Put the lid on the larger jar, being sure to punch small holes in it. (A piece of cheesecloth secured with a rubber band may be used instead of the lid)
7. Decorate your ant house. Make a paper sleeve to tape around the outside jar and a paper cone to fit over the top for a roof. Decorate with markers or crayons.

In a couple days slip the roof and sides of the house off. Look closely at the jar for tunnels the ants have made. Here are a few facts to consider while observing and caring for your ants.

- Ants communicate by touching each other with their antennae.
- Ants leave scent trails for other ants to follow.

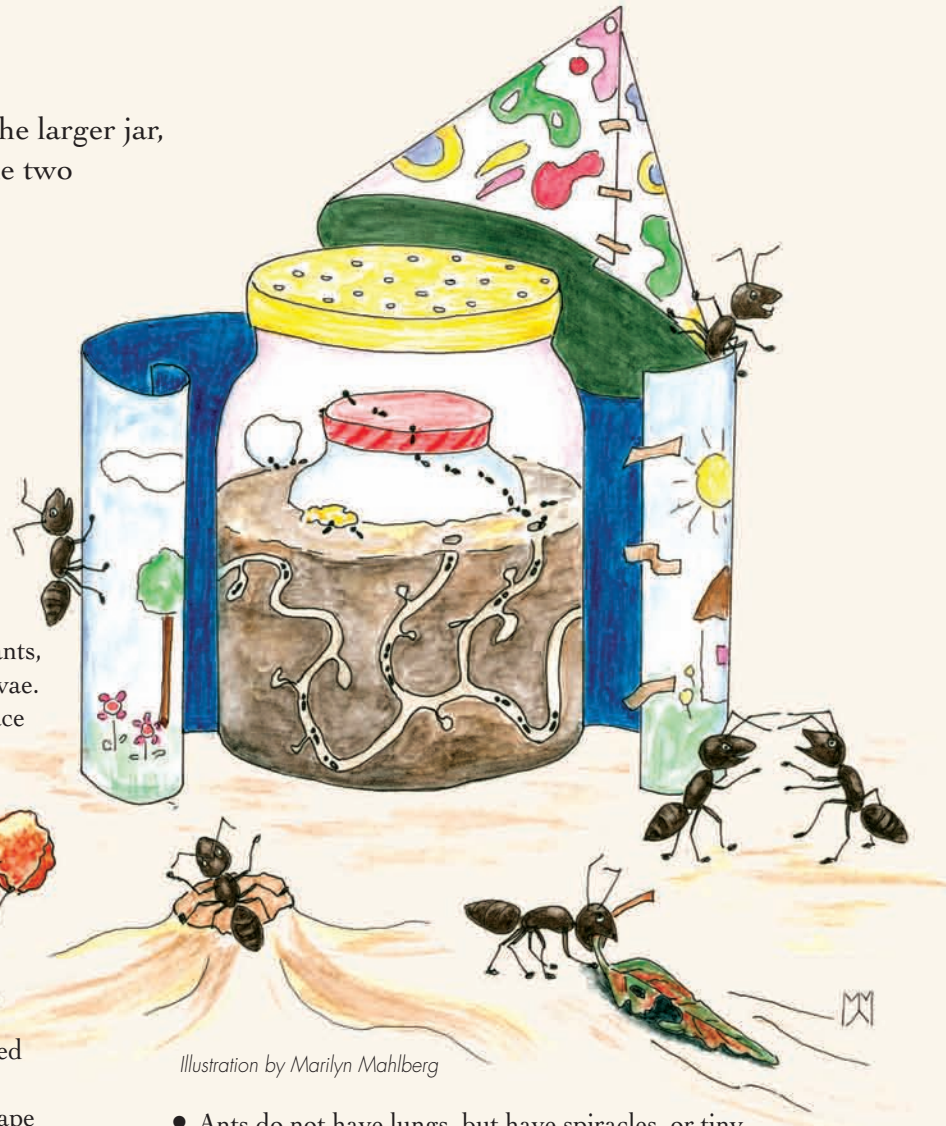


Illustration by Marilyn Mahlberg

- Ants do not have lungs, but have spiracles, or tiny holes, they breathe through.
- Ants have no ears, but can feel vibrations in the ground.
- Ants like sweets – honey, sugar, and small pieces of fruit. They also like bread crumbs.
- Ants can carry 20 times their own weight.

Be sure to put the sides and roof back on the ant house when you are done observing. Ants like it in the dark! Now have fun with those amazing ants!

All the observation activities we do as children are the beginnings of research. Careful observation is an important part of any good research project - and it is just fun to do. After you have watched your ant colony for a week or two, release them to the spot near or like the one you got them from. Sugar water does not have the proper nutrients to keep the ants healthy for more than a short time.





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# Restore the Range Light

For 100 years the Baileys Harbor Range Lights guided ships safely into the harbor. Since 1937 the Lower Range Light has served as an icon of the unique area of biodiversity that surrounds it and Sanctuary that protects the area. The Lower Range Light is in need of restoration to return it to its original state of 142 years ago. Please consider helping with this restoration effort. Work will begin this summer and be finished by Fall.

Donations of \$50 or more receive a Phil Austin Range Light poster.  
Call (920) 839-2802 or visit us online at <http://RidgesSanctuary.org>

