# CENTER LINE

A Publication of Waukesha County's Retzer Nature Center

Summer 2009

## In this issue...


- Wasp Watching
- Imagine!
- Wisconsin Railway
- Friends of Retzer News


## Upcoming Events:

- Morning Bird Hikes Fridays in May & June
- Breeding Bird Hike at Fox River Park, May 16
- ID & Ecology of SE WI Trees, June 13 & 20
- Twilight Delight, July 10 & Aug. 14
- Apple Harvest Festival, Sept. 19

Log on to www.waukeshacountyparks.com for more information.

Yours Naturally!

Waukesha County Park System

Recreation • Education • Preservation

## WASP WATCHING

In the Order of Hymenoptera, the family of Vespidae stands tall among the industrious architects with early 5,000 species. The name Hymenoptera, by the way, comes from two Greek words, meaning "membrane wings." Wasps in this order have two pairs of membranous wings, larger front wings and smaller hind wings. The smaller hind wings are attached to the front wings with hook-like structures. This special arrangement allows the wings to move together as a unit. Wasp wings are transparent and without setae – the bristle like fringes found on other insect wing surfaces. The body of the wasp is cylindrical. It has a rather large movable head, with two antennae and very strong jaws. A humpbacked body consists of a thorax and abdomen, attached by a very thin stalk called the petiole. One wonders how the body parts can stay together with such a skinny connection, especially during a busy building season. The Vespidae family is a work-in-progress, just by showing up at the job site.

Among the Vespid wasps is *Eumenes fraternus*. These unmistakable architects in the insect world are commonly known as Potter Wasps. You will find their creations

hanging from window frames, tree branches, even hanging under your porch, there probably will be several hanging in a row. The nests resemble tiny clay pots. Although most wasps are social and construct large colonies, this small Vespid (5/8 to 3/4 inch) remains a do-it-your-selfer. The female constructs her pots from mud. After making the clay nest, she attaches an egg inside the wall. Then it's off to do marketing. Flying off to find food, the Potter Wasp stings and paralyzes spiders, caterpillars, or sawfly larvae, and inters them within the nest. Provisions will become food on the table for a larva when it hatches. Everything in place, the nest in order, the Potter Wasp plugs the hole with a pellet of mud. When the larva later matures and becomes an adult wasp, it will make a hole in the pot and fly off. The Potter Wasp is black, and has yellow or white markings on the thorax and abdomen. The wings have a dark smoky hue. Potter Wasps don't guard their nests, so they rarely sting – a fine neighborly trait. Then too, the adults sip nectar as they buzz around, which helps to pollinate the flowers. The Potterers are fascinating to observe. Many believe Native Americans developed their pottery designs from observing the industrious Potter Wasps in action.

Members of the Vespid family include the Bald-faced Hornets (*Vespula maculata*). Small in size (5/8 to 3/4 inch), they are the most aggressive and inventive architects in the insect world. I would say they are the Frank Lloyd Wrights of their society, always using natural products, mainly working with wood and other plant materials. Using products close at hand, such as trees, branches, fence posts, barns, even telephone poles, this wasp uses its powerful mandibles to scrape wood fibers from these sources. When chewing on the fibers, and mixing them with their saliva, the wood becomes a soft and moist paper-like goo. With their mouth and legs (the

(Wasp... continued)

wasps have 6 legs, by the way), the construction material is architecturally formed into combs, that are perfectly molded into six-sided cells. Workers build several layers of combs. As the colony grows, the nest becomes larger. There could be 15,000 wasps around the nest — all seasonal workers. Finally the nest will be covered with layers of paper sheets, leaving a hold at the bottom for an entrance. The nest, large or small, will be dry and warm. Living in the nest is a single queen. Like the queen bee in the hive, the queen wasp in the nest has the solo job of laying eggs. Workers tend the eggs, larvae, and pupae in the cells. Unlike the Potter Wasps, who leave food on the table for the kids, the workers of a paper colony catch flying insects, chew them up, and feed the hungry kids until they reach maturity. In our Wisconsin climate, colonies usually last the year, dying at the onset of winter. New queens and male drones are produced before the cold season, and after mating, the queens will fly off and hibernate over the winter in a sheltered locale. With spring, home building will begin anew. A short comment concerning the Bald-faced Hornets; they belong to a strong union and they will defend their property fiercely. Wasps, beside bees and ants, are the only insects with stingers, and the sting of the Bald-faced Hornet is a sting to be reckoned with. Powerful muscles in the insect can drive the stinger deep into an intruder's flesh. From an inside sac, they can pump venom from the stinger into the wound. Not only once, like the bee, but as many times as they like, or see fit. If the whole colony feels threatened and attacks, you're the loser. When observing hornets at work, keep a fair distance while observing these architects.

Bald-faced Hornet

Among the truly social wasps are the black and yellow *Vespula maculifrons*, or to be more common, the Yellow Jackets. Yellow Jackets' social tendencies are well known in Wisconsin's community circles. The wasps frequently attend neighborhood festivities, and are eager to partake of the sweets and beverage served at outdoor events. However, the Yellow Jackets are serious paper-making architects, and their buildings could be dotting your own property. One construction site was found in a tree opposite my kitchen windows. I became an avid observer of this paper-maker wasp. They too, attended a few patio parties of mine as summer wore on into autumn. The Yellow Jackets' nest was started in spring by a mated queen. She had hibernated, and survived a miserable Wisconsin winter. The first few weeks she behaved like a solitary wasp as she started a new nest. Using her jaws, she chewed small pieces of wood, mixing it with her saliva. The paper-like goo was the start of the six-sided cells. There the eggs would be laid. When the first-born emerge as adults, they would become workers and as becomes a queen in her realm, the entourage does all the work under her demand. As the nest grew, it become about the size of a stuffed football. The paperers had nearly covered the outside with sheets of papery mix, and in the construction had left a hole at the bottom for an entrance. The architects, true to form, had finished the project — and it was finished on time. As spring and summer weathered into fall, cold weather approached, the job site was abandoned. New queens will mate with new male drones. The males will die, the queens will hibernate, and new colonies will start come spring. What an adventure to experience the Vespid wasps in action, right outside the kitchen window, and not be an intruder.

Two noted facts concerning Vespid wasps:

1. Wings of the Vespids are folded longitudinally when at rest.
2. Paper wasps, along with hornets, honey bees, and ants, live in societies that are more complex than any other insect society except termites.

With the second fact in mind, one may consider a change of pace. When hiking on your neighborhood trail, try to locate a Vespid family, and instead of bird watching, spend a beguiling time in wasp watching — from a safe distance.

See you on the trail,

*Shirley Blanchard*

References

Fickter, George S. (1993). *Bees, Wasps, and Ants.* Racine, WI: Western Publishing Co., Inc.

O'Toole, Christopher. (1986). *Discovering Bees and Wasps.* New York, NY: The Book Wright Press.

Miller, Sara Swan. (2003). *Ants, Bees and Wasps of North America.* New York: Franklin Watts.

Arnett, Jr., Dr. Ross H. and Dr. Richard L. Jacques, Jr. (1981). *Guide to Insects.* New York, NY: Simon & Schuster, Inc.

◆

# HEARTWOOD

## Imagine!

Nancy, our Office Manager here at Retzer, keeps us all on track.

She keeps us aware of upcoming deadlines, commitments, and schedule items.

She does her utmost to make us all look good.

One of Nancy's constant and enthusiastic roles is (as she calls it) her "think ahead action" toward the staff—gently nudging us (through tactful, humorous, and persistent reminders) to think ahead toward, programs, projects, and events whose deadlines are coming up.

Nancy challenges us to think ahead, to project our minds into a different time and place, to reach forward to a future season—to make that season's arrangements, to plan its programs, and to write its articles, and to do so in such a way that when that season arrives, everything is just as it should be. Of course, when that season does arrive, Nancy will again be making us think ahead to yet another future season (which she secretly enjoys making us do), rather than letting us enjoy the present.

Nancy keeps us on track, and makes sure that we think ahead…

But after 20 years as a naturalist at Retzer, and over 30 years as an educator, I've actually had lots of opportunities to project my mind into different times and places, and not just with regard to programs, projects, events, and schedules.

As naturalists exploring forest, field, or wetland, we get used to projecting our minds into the natural community's time and place, envisioning what happened there just before we arrived, or last night, or yesterday, or last year, or before the time of immigrant settlement, or during the ice age. We're like CSI investigators on TV, arriving at the scene of the crime—looking at the mystery of the particular pieces of evidence left behind, and using them to reason out inductively the big picture, the grand story. Groundwater springs and weathered rocks, plant production and growth, animal food and cover, tracks and dens and camouflage, bird songs and nests, bright flowers and pollinating insects, signs of feeding and predation, decomposition and rich soil, seed dispersal by wind and water and hitch-hiking… This whole process of observing and reasoning pays respect to the integrity of the natural community—first assuming and then proving that it is a place where something important is going on…not just a random mess of whatever happens to accidentally be there.

As teachers, we get used to projecting our minds into the students' time and place, envisioning how it feels to be the students, envisioning what the students know and like, planning for what the students will be doing. Students who are doing a learning activity that is hands-on, creative, engaged, and fun will learn and enjoy doing so—even if the teacher personally is having an off day. By the same token, great lecture notes and lofty understanding by the teacher make no difference, unless the students are doing something they find interesting and enjoyable.

It's what the students are doing that matters, not what the teacher's intentions are.

Projecting our minds into the time and place of the natural community, and into the time and place of students, are each useful activities on their own—but together, they are very powerful. To help create an authentic picture of how the natural community works, and to allow students access to that picture through direct experience, allows them the opportunity to powerfully (and unforgettably) imagine the natural community. Once they do this, it can become a model for a new capacity to learn about the land.

Our educational programming at Retzer Nature Center is based around direct hands-on experiences of student discovery outdoors. Our naturalists add value to these student experiences, through
—focusing attention;
—guided observation and questioning;
—summary and linkage with larger concepts;
—enthusiastic validation of student insights;
—effective group organization and management.

The result, we hope, is a melding of learning and enjoyment of the land—which will enrich the students' life experience, suggest new opportunities for learning and enjoying the land, and form the basis for a life-long value for land and its preservation.

*Larry*

◆

## Wisconsin Railway

In the summer of 1993 I helped a graduate student with her thesis research. We were looking for Mallard and Blue-winged Teal duck nests, using long and slender Aspen poles to thrash the vegetation as we walked through wetlands. This racket would flush a hen off her eggs, who would then return with her mate and proceed to barrage us with disapproving quacks. This technique flushed other things as well. Deer, bitterns and blackbirds all fled before us, and who can blame them? When we flushed any non-duck, we continued on our way quickly to allow the mother (if mother she was) to return and get back to her day.

Flushing things startles you. If you have ever hunted grouse, jumped a duck from an unseen pothole or inconsiderately bumped a hen turkey off her nest, you know just how unsettled one can become. It does not matter how often it happens, your heart always beats faster after a flush. The same was true of us. It took a month to even get used to the angry explosion of feathers, which did not help much but at least we were 'used' to it.

In the fifth week of our tour we experienced a rather unfruitful week. By the afternoon of the third day we began to relax, as humans tend to do when they have not received a 'reminder' in awhile. Talking about nothing in particular we worked our way through a vast sedge meadow, dry enough in places that willows and dogwoods dotted the landscape. If your transect traveled *through* one of these shrub islands, you traveled through the shrub island, no exception! One such tangle loomed before Sheri, the graduate student behind this project. I paid it no heed except to note that it was not my brush to deal with. Smiling and thinking of what wonderful phrase(s) Sheri might employ this time, I turned my gaze skyward and…

GRRRRUUUUUNNT! I whirled around, sturdy aspen staff in hand ready to deal with the wild boar that had obviously wandered into this Wisconsin sedge meadow. I was not aware of any wild boars in the state prior to this, but boars are unpredictable and devious as all of us are well aware. Who knows? Maybe the ducks hired some tusked security muscle; a mercenary to deal with the Aspen militia! None of that mattered now. All that mattered was making sure we got out of there alive!

After that first second passed, the next second brought more clarity, like the fact that we were probably going to live through this. Second number three brought a little embarrassment. Thoughts like "Boar? What Boar?!" and "Of course there are no boars in Wisconsin! Sheesh. What do you take me for? Some greenhorn college student?!" rapidly crossed my mind. At the tenth second, I realized that this internal conversation with no one is how the madness sets in, so I shook my head to clear it. A quick glance at my colleagues showed they were recovering from their own internal battles. We made an unspoken agreement on the spot to never ask questions about this. No good can come from such things. After the fifteenth second, we turned our attention back to the brush just in case there was some sort of threat in the middle. You never know! We studied, talked, discussed and planned. It was a full minute before Sheri went in.

With two of us positioned on the other side of the woody clump, our leader argued her way through the brambles. She was almost out; she was going to make it! Just two more steps and… FLUSH! This huge, monstrous seven… no, EIGHT-inch bird flew very slowly out of the cover. We all stared in horror as it came within twenty feet of our heads, not looking threatening in the slightest! Sheri was so scared she did not even see the terror she unleashed. "Did you see anything?" she asked in a calm voice. Her self-control was amazing! "Yeah!" we said, "We saw a little bird flying slowly and away from us! It had to be eight inches long!" Sheri was only mildly impressed. This was understandable, she did not have to stand there and witness the abomination fly out. In truth, we were all impressed but for different reasons than the creature led us to believe. The sight of it was simply not intimidating. How could such a little thing make such a big noise? We all confirmed what we saw, a small to medium bird with stubby wings and a long bill. Thinking Sheri may have missed something, we all looked through the woody material but turned up nothing. We allowed ourselves looks of disbelief before getting back to the ducks. I did not know it then, but this is where my love of rails began.

What we found over 15 years ago was the elusive Virginia Rail (*Rallus limicola*), a bird with a large variety of on-board calls and sounds to choose from. Rails in general are a very shy group and some are downright invisible. Even for avid birders, King Rails (*Rallus elegans*) and Yellow Rails (*Coturnicops noveboracensis*) are very rarely even heard. For actual sighting odds, look into these likely topics and headlines: "winning the lottery", "person struck by lightning", "cats and dogs sign equal rights treaty", "blank freezes over", "pigs fly" and "Vikings win the Big Game". Gallinules and Coots are also in the rail family and are quite visible, adopting the sometimes raucous and communal tendencies of ducks and geese. By contrast, rails emulate the habits of Not Official Cover NSA agents.

The two rails in Waukesha County are the aforementioned Virginia Rail and the Sora (*Porzana carolina*). Although both migrate many miles to Florida and the Gulf of Mexico coast, they are still considered poor fliers (Kaufman 1996). With all respect to rails everywhere, I second this. The few times I have seen these birds in flight, they looked like over-laden giant mosquitoes. Maybe when cruising at altitude they fly well, but they are the aerial laughing-stocks of their summertime marshes. They will move or escape on foot long before they take wing, sneaking through the tight vegetation like a cutpurse in the marketplace (without any underhanded objectives of course). Rails all over the world are simply not strong of wing. If they are isolated long enough without sufficient predation, they can become flightless. Many are now extinct. One sad example is the Wake Island Rail (*Gallirallus wakensis*). First discovered in 1903, this small bird lived on the strategically-located coral atoll that we fought with Japan for in World War II. When the United States cut off the supplies to Japan-occupied Wake Island, the soldiers turned to eating anything they could find. The poor creature survived all the bombing and fighting but still went extinct in 1945. There are three species of flightless rails left in the world, one each on the Solomon Islands, Okinawa and Guam (Reaka-Kudla et al 1997).

Rails rely on other qualities to ensure their survival and self-esteem. Outside of being just cool birds, they can walk on and through vegetation where passage should be and appears to be impossible. They create sounds that one would swear could only come from a Korg® synthesizer. If they do sound natural, they can sound much bigger than they actually are. The Virginia Rail is notorious for having many different sounds. The loud alarm grunt we heard all those years back is a very rare call. Some of the noises Virginias make have been wrongfully attributed to the Yellow Rail. This may seem daunting in a discipline where we need to identify by ear, and there are probably still some vocalizations we do not know about. Take care, there are the more common ones we can be fairly certain about. The repeated kiddick call of the Virginia Rail is a staple sound for the bird, and also the common grunts of wep wep wep wepwepwepprrr (Sibley 2001). Both sexes of the Sora sound the high whinny ko WEEee-e-e-e-e-e-e-e-e, the rising kooEE and the sharp keek (Sibley 2001).

The habits and habitat of both birds are quite similar. It is when you study feeding behavior that you see a big difference. This is likely due to bill shape and size. The snub-nosed Sora enjoys a few insects and snails but diets heavily on seeds. The long bill of the Virginia Rail is primarily for probing and hunting insects, snails, slugs and crayfish. It only eats a few seeds although seeds may be very important at times (Kaufman 1996). They both arrive around mid-April and depart mid-October (Temple and Cary 1987), laying eggs usually by mid-May in nests only 2-6 inches above the waterline (Robbins 1991). Again, in both species the male and the female share many responsibilities. They both build the nest, help incubate the young, provide food to the chicks and generally brood them together for about 2-3 weeks (Kaufman 1996). The best time to get a glimpse of either rail is July through early August when both the parents and the fledglings have left the breeding area. The youngsters are the easiest to spot because they seem to be less cautious than the parents (or 'stupid', if the term fits). If you do seek them, look for cattails. Both species select marshes about 75% of the time (Cutright et al 2006). A word to the wise, the dedicated and the insane; the only time I have seen rails is when the water was up to my knees and in dense cover, usually with herbicide in hand. Over a decade of summers controlling purple loosestrife and I can still only need my hands to count the number of rails seen during those hours. Good luck.

As you have worked out, this article is not about inexpensive mass transportation. I apologize to those of you expecting a train story. Even if you were, if you have read this far hopefully you have an elevated appreciation of these mysterious, miniscule marsh-dwellers. They are, like all avian families, my favorite group of birds (no seriously, rails are special).

*Mike*

References:

Cutright N J, Harriman BR, Howe RW, editors. (2006). *Atlas of the Breeding Birds of Wisconsin*. Waukesha, WI: The Wisconsin Society for Ornithology, Inc.

Kaufman, K. (1996). *Lives of North American Birds.* New York, NY: Houghton Mifflin.

Reaka-Kudia ML, DE Wilson, EO Wilson. (1997). *Biodiversity II: Understanding and Protecting Our Biological Resource.* Washington, DC: Joseph Henry Press.

Robbins, S. D. Jr. (1991). *Wisconsin Birdlife Population and Distribution · Past and Present*. Madison, WI: The University of Wisconsin Press.

Sibley, D. A. (2001). *The Sibley Guide to Birds.* New York, NY: Alfred A. Knopf, Inc.

Temple, S. and J. Cary. (1987). *Wisconsin Birds A Seasonal and Geographic Guide.* Madison, WI: The University of Wisconsin Press.

http://en.wikipedia.org/wiki/Wake_Island_Rail

◆

# Friends of Retzer

**Membership:**
The Friends of Retzer Nature Center are an active group dedicated to supporting the growth of Retzer Nature Center. There are many volunteer opportunities available to our members. If you would like to become a member or view some of our projects and activities, please visit our updated web site at http://FriendsOfRetzer.org.

We are also interested in starting more blog sites. Currently we have a bluebird blog and a Camera Club blog. If you would like to be a blog leader for blogs relating to nature topics contact the Friends at info@FriendsOfRetzer.org.

**Apple Fest:**
Mark your calendars for another great time at Retzer Nature Center. Apple Fest will be held on Saturday, September 19. The Friends will need your help in several areas including the booth at the entrance and the silent auction. Please call Retzer at 262-896-8007 if you can help out.

**WeCare Program:**
The Friends have joined the We Care Program at Pick 'n Save grocery stores. As a result we can all support the Friends of Retzer's program goals every time we shop at our local Pick 'n Save. Sign up for an Advantage card at the service counter or change your current Advantage card and designate the Friends of Retzer Nature Center as your charity of choice (you can only designate one charity). Our account number is 246125 or just indicate the Friends of Retzer Nature Center. A percentage of every dollar you spend will automatically be donated to the Friends.

**Fall Field Trip:**
Look for information in the next Center Line for an upcoming fall field trip sponsored by the Friends of Retzer. Last year we had a wonderful tour of the Aldo Leopold Center including the Shack. Click on our web site http://FriendsOfRetzer.org to see a video tour of our trip.

# Mark your calendar!

## Apple Harvest Festival

**Saturday, September 19th**
**9 am to 5 pm**

Sponsored by:
AppleTree Credit Union

**See insert for more detailed information.**

**RETZER NATURE CENTER**
WAUKESHA COUNTY PARKS & LAND USE
S14 W28167 MADISON STREET
WAUKESHA, WI 53188

**Return Service Requested**

## *A Sincere Thanks to All...*

*The following individuals or groups have donated to Retzer Nature Center since the last issue of CENTER LINE. Their support is greatly appreciated.*

- Terry Molter donated a photo of a tree frog.
- Jeff Natzke for a donation to our exhibit area of a Drake Mallard and Drake Wood Duck from the Estate of David W. Leitner.
- JoAnn Tiedemann cash donation in memory of Ann Bardeen Henschel
- Mr. & Mrs. James Picucci cash donation in memory of Ann Bardeen Henschel
- Mr. & Mrs. Harry Hancock cash donation in memory of Ann Bardeen Henschel
- John Harrington cash donation in memory of Ann Bardeen Henschel
- Gladys Edwards cash donation in memory of Ann Bardeen Henschel
- Mr. & Mrs. J. Himes cash donation in memory of Ann Bardeen Henschel
- Mr. & Mrs. James Bardeen cash donation in memory of Ann Bardeen Henschel
- Mr. & Mrs. Gordon Justice cash donation in memory of Ann Bardeen Henschel
- Mr. & Mrs. Thomas Wright cash donation in memory of Ann Bardeen Henschel
- Cheryl Maes cash donation in memory of Ann Bardeen Henschel
- Nancy Bonniwell cash donation in memory of Ann Bardeen Henschel
- Marsha Block cash donation in memory of Ann Bardeen Henschel
- Mr. & Mrs. Dave Duersteler cash donation in memory of Ann Bardeen Henschel
- Shelley King cash donation in memory of Ann Bardeen Henschel
- Nancy T. Hazard cash donation in memory of Ann Bardeen Henschel
- Karen Meier cash donation in memory of Ann Bardeen Henschel
- Nancy J. Hazard cash donation in memory of Ann Bardeen Henschel
- Mr. & Mrs. Patrick Moretti cash donation in memory of Ann Bardeen Henschel
- At Home Loving Care, LLC of Lou Nichols & Staff cash donation in memory of Ann Bardeen Henschel
- Dr. David C. Warltier of Froedtert Memerial Lutheran Hospital West cash donation in memory of Ann Bardeen Henschel