



# Nature Notes

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## PRESIDENT'S CORNER

Ann Earley

Our 89<sup>th</sup> annual spring banquet held on May 6 at Eden Seminary Commons provided a festive conclusion to the WGNSS program year. The WGNSS scholarship recipients were recognized, and the Lifetime Achievement Award was presented to Jim Adams and to Carl Darigo. Our keynote banquet speaker, Guy Sternberg of Starhill Forest Arboretum in Petersburg, Illinois, gave us a new appreciation of the oak trees of various climes in his presentation "The World of Oaks."

As always, the banquet could not happen without the assistance of many WGNSS members and friends. Many thanks to Second Vice President Jane Deschu, who coordinated the banquet arrangements. Thank you to the following members who helped in various ways to make the evening special:

Dennis Bozzay; Paul Brockland; Nels Holmberg; Anne McCormack; Michael Olson; Malinda Slagle; Father James Sullivan; Rich Thoma; George Van Brunt; George Yatskievych; and Jim Ziebol, who donated four pieces of his original artwork to honor our two Lifetime Achievement Award recipients, as well as Anne McCormack and Jack Harris, for their service to WGNSS.

At the April general membership meeting, Layne Van Brunt was re-elected as Society Secretary, and she was recognized at the banquet for her service. **We continue to seek a volunteer to serve as WGNSS Treasurer**, succeeding Mike Olson. Many thanks to Mike for his service to WGNSS and for his patience until a successor can be found. If you are

interested in helping WGNSS with the Treasurer duties, please contact me or Mike.

We were very fortunate to have Malinda Slagle volunteer in late 2008 to succeed Jim Adams as WGNSS newsletter editor, and we appreciate Malinda's good work on the newsletter during 2009. Unfortunately, due to a family job re-location, Malinda will be leaving the St. Louis area for Texas later this summer. As a result, **we are now looking for a newsletter editor** to succeed Malinda as soon as possible. If you are interested in being editor of *Nature Notes*, please contact me or Malinda.

As summer approaches, *Nature Notes* and our monthly program meetings will be taking a break until fall. Before you leave on summer vacation, please remember to renew your WGNSS membership for the coming year.

And if you have any program ideas (topics or speakers) you would like to recommend for our fall schedule, please provide those to Shawn Clubb. Thank you for your support of WGNSS, and enjoy your summer!

## TRIBUTE TO WGNSS LIFETIME ACHIEVEMENT AWARD RECIPIENT CARL DARIGO

Ann Earley, with comments from Father James Sullivan and Nels Holmberg

In browsing through those great annual summaries of each issue of *Nature Notes* which Jim Adams prepared, I stopped to more closely peruse the year 1991. In the fall of that year, among other items of interest, *Nature Notes* featured a report on September birding in the St. Louis area written by Rose Ann Bodman, noted

that Mary Wiese presented the November program on “Travels in Namibia and Botswana,” and also included a write-up by a certain botany reporter about an annual botany field trip to the West Plains, Missouri area. In the February 1992 issue, this same botany reporter wrote that at the Botany Group’s annual Christmas luncheon, no one scored 100% on Betty Nellums’ quiz to identify ten winter birds. (Who says there is no investigative reporting in *Nature Notes*?) From then on, through the years, he reported on the doings of the Botany Group and its travels through the seasons and also wrote book reviews and other articles. This botany reporter is, of course, Carl Darigo. In addition to all this, he also edited *Nature Notes* in Anne McCormack’s absence. Carl has been a WGNSS member for more than 40 years. One WGNSS member described Carl in this way—“He’s one of those folks that keep things running, without ever being in the spotlight.” To shine some more light on Carl we heard more about him from two of his fellow botanists, Nels Holmberg, and Father Sullivan, himself a WGNSS Lifetime Achievement Award recipient. <At this point, Father Sullivan and Nels shared their comments about Carl.>

Carl, your generosity with your time and talent in serving WGNSS, and your dedication to botany and the natural world personify the finest qualities of WGNSS and its members. Your many contributions to WGNSS have educated, informed and enlightened us.

### **TRIBUTE TO WGNSS LIFETIME ACHIEVEMENT AWARD RECIPIENT JIM ADAMS**

Ann Earley, with comments from Paul  
Brockland and Rich Thoma

Jim Adams has been a WGNSS member for more than 30 years and became very active with the Society in 2002. He initially joined the WGNSS Board to serve as Secretary, then became Newsletter Editor in 2005. He has also served as Historian during his time on the WGNSS Board, instigating the WGNSS Heritage Night in 2003, contributing many articles to *Nature Notes* about WGNSS history, and cataloging and indexing all issues of *Nature Notes* and overseeing their placement in the

Missouri Botanical Garden’s reference library. If this all sounds like a whirlwind of activity, that accurately describes Jim’s involvement with WGNSS. To continue our tribute to Jim, we heard from two of Jim’s fellow Board members and friends, Paul Brockland and Rich Thoma. <At this point, Paul and Rich shared their comments about Jim.>

Jim, your volunteer spirit, motivation, and energetic attitude are an inspiration to us all. WGNSS has greatly benefited from your many contributions.

### **MARCH BOTANY REPORT**

Compiled by George van Brunt

March 2, 2009 Botany Field Trip

Contributed by Wayne Clark

On a cold winter day nine botanists (Fr Jim Sullivan, George Van Brunt, John Oliver, Jeannie Moe, Jack Harris, Pat Harris, Wayne Clark, Nancy Clark, Michelle Lee) seeking more temperate and tropical climates descended on the Missouri Botanical Garden. The first stop was the Orchid Show. *Paphiopedilum* –the Asian Lady’s-Slipper Orchid, a genus of approximately 70 species, had many specimens in the show. Most of them, if not all, were hybrids. We saw a scattering of non- orchid plants like *Nepenthes* *sp.*, a carnivorous plant, and a ‘Bird-of-Paradise’ with an orange and purple blossom. The display was very beautiful. After the orchids reach their peak they are replaced with fresh plants at a rate of about 30 per day.

The next stop was the Linnean House. The camellias were at their peak two weeks earlier, but the *Camellia japonica* 'Professor Charles S. Sargent' was in full bloom. Other plants there are the *Dicksonia antarctica* (Tasmanian tree fern), *Ilex vomitoria* (yaupon holly 'Stokes'), *Selaginella kraussiana* (trailing selaginella 'Aurea'), and *Nephrolepis exaltata* (Boston fern 'Dallasii'). *Viola hederacea* (Australian violet), in bloom, has leaves that resemble those of *Glechoma*.

Next we went to the tropical climate of the Climatron where about 1500 species are housed. The first shrub we encountered that was in bloom was *Brunfelsia nitida*. It belongs to a genus where the flowers open lavender and change to white with age. *Hibiscus rosa-sinensis*

(Chinese hibiscus) was in glorious bloom. Further along the path we came to one of this writers favorite spots, the cycad grove. Cycads are plants that resemble palms, but are not related to palms, or anything else. They have a lineage of 300 million years. Cycad morphology: The stems are either arborescent or subterranean. The arborescent stems are topped by a crown of pinnately divided leaves. The stems often reach heights of 5 -10m (16 - 33 ft). The subterranean stems have crowns at ground level. Cycads are dioecious, i.e., individual plants are either male or female. Several months ago the *Encephalartos ferox* (holly-leaved cycad) grew two female cones at the top of the stem. The longest one was 40 cm (16 inches) long. They were bright orange and smooth. A couple of weeks later they became lumpy and resembled a pinecone. The cones are composed of highly modified leaves called sporophylls. The color of the cones darkened to a reddish orange as they aged. At maturity they started falling apart from the tip to the base over a period of several weeks. The leaf-like sporophylls were easily visible. A tropical American shrub, *Calliandra haematocephala* (red powderpuff) was in bloom. It was aptly named. Another shrub in bloom was *Brugmansia rosea* (datura tree) with 46cm (18 inch) long trumpet shaped blossoms. The blossoms of both shrubs were gone by 2-3 weeks later. The *Pandanus copelandii* (screw pine) tree from the Philippines is always fascinating.

Leaving the Climatron we went through the adjoining Temperate House. Since it was getting close to lunch time we didn't spend much time there. One planting group that attracted attention was the African daisy *Osteospermum* 'Balserswibli' (Serenity White Bliss).

Photos: *Encephalartos ferox* female cones in the Climatron. Almost mature cones and mature cone falling apart showing the sporophylls. Photos by Nancy Clark



March 9, 2009 Botany Field Trip Contributed by Nels Holmberg

The traditional first native wildflower of spring was celebrated by 12 hikers at Robertsville State Park. Harbinger of spring (*Erigenia bulbosa*) was found in great abundance and enjoyed around the parking lot, in the picnic area and in the woods. This little member of the carrot family grows from a supposedly edible tuber, but no one could bear to dig one up to taste. We did admire their bright reddish purple anthers which turn almost black after pollen release.

Three other small plants were found in bloom, two in a bank of *Hypnum* moss along the park road: short-pod whitlow grass (*Draba brachycarpa*) and least bluets (*Hedyotis*

*crassifolia*), and one in the Roberts family cemetery: Shepherd's purse (*Capsella bursa-pastoris*). Two trees were also noted in flower: silver maple (*Acer saccharinum*) and American elm (*Ulmus americana*). The whitlow grass and the Shepherd's purse are both members of the mustard (Brassicaceae) family, which has many early flowering species. Many species in this family spread widely in disturbed areas, as 56 of the 85 species listed in George Yatskievych's *Flora of Missouri* are not native to Missouri.

Two lichens found and taken to MOBOT for identification by Carl Darigo were *Parmotrema hypotropum* (parmotrema lichen), with black cilia hairs, and *Rimellia reticulata*.

The group had first assembled around WGNSS 2<sup>nd</sup> vice-president Jane Deschu who solicited the group's advice on the menu for the May 6 WGNSS banquet. The group was of no help as every choice sounded great. Next Jane passed around her show-and-tell exhibit: an emerald ash borer (*Agilus planipennis*). Jane's son, a forester, had the unfortunate honor of being the first person to find one in Missouri.

March 16, 2009 Botany Field Trip  
Contributed by Jeannie A. Moe

On a beautiful spring day ten botanists participated in a walk down the Mooner's Hollow Trail at St. Francois State Park. Perfoliate penny cress (*Microthlaspi perfoliatum*) was blooming in the grass by the parking lot. Spicebush (*Lindera benzoin*) was blooming by the stream on the edge of the parking lot. The liverwort (*Anemone acutiloba*) was blooming in abundance in the rocks along the trail. Other plants in bloom included: American elm (*Ulmus americana*), hazelnut (*Corylus americana*), spring beauty (*Claytonia virginica*), bloodroot (*Sanguinaria canadensis*), aromatic sumac (*Rhus aromatica*), toothwort (*Cardamine concatenata*), a paw paw (*Asimina triloba*) had flower buds that weren't quite open. A trillium had an unopened flower bud and it was impossible to decide if it was *Trillium sessile* or *T. recurvatum*. Fruits included wild yam (*Dioscorea quaternata*), wild senna (*Senna marilandica*), tall bell flower (*Campanula Americana*), and hydrangea (*Hydrangea arborescens*). Winter rosettes included leaf cup (*Polymnia canadensis*), celandine poppy

(*Stylophorum diphyllum*), lousewort (*Pedicularis Canadensis*), smooth rock cress (*Packera laevigata*), and columbine (*Aquilegia Canadensis*). Tree species included musclewood (*Carpinus caroliniana*), and hop hornbeam (*Ostrya virginiana*). In the creek was watercress (*Nasturtium officinale*). Ferns included Christmas fern (*Polystichum acrostichoides*), cliff brake fern (*Pellaea glabella*), maidenhair fern (*Adiantum pedatum*), ebony spleenwort (*Asplenium platyneuron*), and walking fern (*Asplenium rhizophyllum*).

On the glade on the Mooner's Hollow Trail, there were winter fruits of glade coneflower (*Echinacea simulata*) and glade onion (*Allium stellatum*). Flowering dogwood (*Cornus florida*) trees had flower buds waiting for spring to progress so they could open. Grasses on the glade included big bluestem (*Andropogon gerardii*) and Little Bluestem (*Schizachyrium scoparium*). Trees included shumard oak (*Quercus shumardii*) and eastern red cedar (*Juniperus virginiana*).

Snail shells found on the walk included oakwood liptooth (*Daedalochila dorfeuilliana*), toothed globe (*Mesodon zaletus*), flamed tiger snail (*Anguispira alternate*), brittle button (*Mesomphix friabilis*), and gray-foot lancetooth (*Haplotrema concavum*). The gray-foot lancetooth is a carnivorous snail that preys on other snails. The flamed tiger snail was a county record for St. Francois County. Birds on the walk included Tufted Tit-mouse, Robin and Red-shouldered Hawk. The only butterfly seen was a Spring Azure.

Below is a photo of hepatica (*Anemonella acutiloba*)



March 23, 2009 Botany Field Trip

Contributed by John Oliver

Nine botanists assembled on an overcast morning at St. Joe State Park in St. Francois County. This area, adjacent to Park Hills, Missouri, is one of the largest of Missouri's state parks encompassing 8,238 acres and includes a 2,000-acre off-road vehicle (ORV) riding area located on the old St. Joe mine tailings dumps. In fact, the terrain of this area and its history are inextricably connected to the lead mining activity which took place here. The pervasive dolomite substrate is riddled with galena deposits and has been since about 1720, the site of the most intensive lead mining in the world. More than 1,000 miles of abandoned multilevel mine tunnels, with 300 miles of underground mainline railroad tracks are testimony to 108 years of persistent mining operations in this area.

St. Joseph Lead Co. dominated ore production and became the heart of the Old Lead Belt, continuing operations in this district until 1972. In 1975, the company donated the 25 buildings of their largest mine-mill complex and the surrounding land to the Missouri Department of Natural Resources. These properties became Missouri Mines State Historic Site and St. Joe State Park. Although portions of the park have since been managed to encourage its return to a natural condition, large areas still bear the scars of human activity.

We began at the parking area for the Harris Branch Trailhead on the park's paved bicycle trail. In the lawn-like area around the parking lot, we observed several non-native species in bloom: *Draba verna* (vernal whitlow grass), *Lamium amplexicaule* (henbit), *Microthlaspi perfoliatum* (penny cress), *Taraxacum officinale* (common dandelion), and *Veronica polita* (wayside speedwell). These invaders are often found in our lawns at home also.

Next we explored the wooded area below the parking lot which is drained by a small stream. There we found a few early spring wildflowers in bloom: *Anemonella thalictroides* (rue anemone), *Cardamine concatenata* (toothwort), *Carex albicans* (a sedge), *Rhus aromatica* (fragrant sumac), and *Sanguinaria canadensis* (bloodroot). There was also non-blooming evidence of the presence of other species such as

the leaves of violets and *Silene csereii* (smooth catchfly) as well as a colony of *Swertia caroliniensis* (American columbo). We observed many emerging rosettes of the basal leaves of this interesting plant. It produces these basal leaves for several years before flowering, and then will die after shedding its seeds.

Moving up out of the stream bed, we entered an area which was apparently an old glade which had recently been burned. The removal of cedars was also a part of the glade restoration. There we found more fragrant sumac in bloom and numerous flowering specimens of *Glandularia canadensis* (rose verbena), some growing out of the charred fire scars from the burn. The presence of *Sideroxylon lanuginosum* (wooly buckthorn) trees seemed to confirm the identity of this area as a glade.

Finally, we walked for some distance along the bicycle/hiking trail in a generally south-southeast direction. The trail in this area follows the roadbed of the mining rail line, and in places has been literally built on the tailings from the lead mines. This degraded soil supports a paucity of native species and is often exploited by invasives. We observed one such area along the trail where the leaves of *Centaurea stoebe* (spotted knapweed) showed it to be the dominant plant. This is a plant which is allelopathic, meaning that their roots secrete chemicals that inhibit the growth and establishment of other plant species in the vicinity, and skin irritation has been reported in some people exposed to the plant. Other adaptations which also make spotted knapweed an aggressive competitor with native plants include its production of about 1,000 small seeds per plant and its ability to produce both a strong taproot and a shallow mat of fibrous roots extending from the plant for several feet from which some sprouting occurs.

Few new species were added to our list in walking this portion of the trail. *Draba cuneifolia* (whitlow grass) and fading flowers on *Corylus americana* (American hazelnut) were observed. However, many signs of the approach of spring were noted, including fruits on *Ulmus americana* (American elm) and the developing flower buds on some trees and shrubs: *Cornus florida* (flowering dogwood), *Sassafras albidum* (sassafras), male catkins of *Ostrya virginiana* (hop hornbeam), and opening leaf buds on

*Rhamnus caroliniana* (Carolina buckthorn), showed spring is definitely in progress.

(After leaving the group, I drove along Pimville road between the trailheads and observed *Amelanchier arborea* (shad bush) and *Corydalis flavula* (pale corydalis) in bloom.)

March 30, 2009 Botany Field Trip

Contributed by George Van Brunt

Nine botanists (Fr. Sullivan, Wayne Clark, Nancy Clark, Jack Harris, Pat Harris, Larry Morrison, Tina Mathes, John Oliver, Jean Clauson, and George Van Brunt) met on a windy but sunny morning at the Missouri Research Park Access to the Katy Trail in St. Charles County. At the start of our walk, the temperature was about 40° F but quickly warmed to 60° F. A dramatic attention shift among the botanists from winter buds and twigs of woody plants to spring herbaceous plants and flowers took place as it always does at this time of year.

The paved trail from the parking lot to the Katy Trail, The Missouri Research Park Trail, is about three quarters of a mile long and winds through disturbed but rich Missouri River bottomland. Flowering species we identified included *Thalictrum thalictroides* (rue anemone), *Phlox divaricata* (wild sweet William), *Claytonia virginica* (spring beauty), *Carex albicans* (whitening sedge), *Dicentra cucullaria* (Dutchman's breeches), *Viola sororia* (common violet), *Antennaria parlinii* (Parlin's pussytoes), *Rhus aromatica* (aromatic sumac), *Corydalis flavula* (pale corydalis), *Lindera benzoin* (spicebush), *Cardamine concatenata* (toothwort), *Veronica polita* (speedwell), *Sanguinaria canadensis* (bloodroot), *Glechoma hederacea* (ground ivy), *Lamium purpureum* (deadnettle), and *Stellaria media* (common chickweed). Other plants not yet in flower included *Polemonium reptans* (Jacob's ladder), *Aplectrum hyemale* (Adam-and-Eve orchid), *Galium aparine* (cleavers), *Packera obovata* (round-leaf ragwort), *Packera glabella* (butterweed), and *Hackelia virginiana* (stickseed). We also found a considerable number of *Cystopteris protrusa* (fragile fern) on the forest floor. Carl Darigo identified a moss sample we collected as *Physcomitrium pyriforme* (urn moss) of the family Funariaceae

When we arrived at the Katy Trail, we walked west some distance and then returned the same way. Along the Katy Trail, we found *Capsella bursa-pastoris* (shepherd's purse), *Cercis canadensis* (redbud), *Ranunculus abortivus* (small-flowered crowfoot), *Ribes missouriensis* (Missouri gooseberry), *Microthlaspi perfoliatum* (claspleaf pennycress), *Viola pubescens* (yellow violet), and *Trillium viride* (green trillium) all in bloom. Non-blooming species included *Polymnia canadensis* (leaf-cup), *Urtica dioica* ssp. *gracilis* (stinging nettle), and *Podophyllum peltatum* (mayapple). Unfortunately, we also found lots of the invasive exotics *Lonicera maackii* (bush honeysuckle) and *Alliaria petiolata* (garlic mustard).

The group took considerable interest in the *Trillium viride* plants which in some places were growing in small groups. In one of the groups, we found flowering plants with the typical whorl of three leaves and also some plants with a single heart-shaped leaf. John stated that he thought that the single-leaved plants were young plants that had not yet matured. Some research on-line and in the MOBOT library produced the following information. *Trillium* seeds have a fatty structure, an elaiosome, attached to them which attracts ants and enlists them to plant the seeds. Ants collect the seeds, carry them underground, eat the elaiosomes, and abandon the seeds. In the first year, living on stored food, the seed germinates forming a root and an underground stem called a rhizome. In the second year, the seedling sends up its one seed-leaf or cotyledon which is photosynthetic. In the third year, the plant becomes a juvenile and the rhizome sends up one heart-shaped true leaf. The juvenile stage may continue for several years; if growing conditions are good, each year the rhizome gets larger and so does the area of the leaf. Eventually the juvenile stage ends and the rhizome sends up a sterile scape (a peduncle arising from ground level – a flower stalk) with a whorl of 3 bracts at the tip but no flower. Bracts differ from true leaves in that they are located on flower stalks while leaves are located on stems. The plant may continue to send up a sterile scape for a few years, but eventually, the rhizome sends up a fertile scape bearing a whorl of 3 bracts and a solitary flower. The size of the rhizome seems to be more important than the age

of the plant in determining when the plant advances to the next stage. If a plant suffers physical damage or other stressful conditions, it may revert to an earlier stage until it can build enough reserve to advance to the next stage again. *Trillium* species are long-lived plants attaining ages of 30 years or more. There are approximately 43 species of *Trillium*, all but 5 in North America; the 5 exceptions occur in eastern Asia. The genus *Trillium* is divided into two subgenera, subgenus *Trillium* and subgenus *Phyllantherum*. The species in subgenus *Trillium* are pedicellate, having the flower on a 1 to 6 cm long stalk rising above the level of the three bracts. This subgenus is thought to be pleisomorphic or "primitive". The subgenus *Phyllantherum* includes species in which the flower is sessile, lacking a pedicel; the flower is attached to the scape at the level of the bracts. These species are considered to be apomorphic or "derived".

#### **APRIL BIRD REPORT**

Jim Ziebol & Yvonne Homeyer

#### EARLY BIRD ARRIVAL DATES

2/15 Franklin's Gull, Horseshoe Lake, Frank Holmes. 2/21 Horned Grebe, Horseshoe Lake, Frank Holmes; Slaty-backed Gull, Carlyle Lake, Dan Kassebaum. 2/25 Pied-billed Grebe, Forest Park, Sherry McCowan. 3/6 Pine Warbler, Forest Park, Chris Ferree; Woodcock, Forest Park, Chris Ferree; Snipe, Forest Park, Chris Ferree. 3/7 Blue-winged Teal, Horseshoe Lake, Frank Holmes; Lesser Yellowlegs, Riverlands, Connie Alwood; Louisiana Waterthrush, Castlewood, David Marjamaa. 3/8 Greater Yellowlegs, Horseshoe Lake, Frank Holmes, Jim Ziebol; Bonaparte's Gulls, Horseshoe Lake, Frank Holmes; Tree Swallows, Horseshoe Lake, Frank Holmes, Jim Ziebol; Tree Swallows, Blue Grosbeak Tr., Marc Lund. 3/12 Northern Shrike, Columbia Bottom, Joe Pinnell. 3/13 Pectoral Sandpiper, BK Leach, David Rogles; Brewer's Blackbird, BK Leach, David Rogles; Dowitcher sp. (Short-billed), BK Leach, David Rogles; American Pipit, BK Leach, David Rogles. 3/14 Am. Golden Plover, Riverlands, Bill Rudden. 3/15 Purple Finch, Busch, Jackie Chain; Red-breasted Nuthatch, Busch, Jackie Chain. 3/17

Common Redpoll, Powder Valley, Jane Fitzgerald, Tom Mills. 3/19 Winter Wren, Tower Grove Park, Jim Ziebol. 3/21 Loggerhead Shrike, Firma Road, Pat Lueders. 3/22 Least Sandpiper, Firma Road, Shawn Clubb; Baird's Sandpiper, Riverlands, Tom Bormann, David Rogles. 3/23 Cinnamon Teal, Riverlands, Bill Rudden; Purple Martin, Horseshoe Lake, Jim Ziebol; Vesper Sparrow, Horseshoe Lake, Jim Ziebol; Lapland Longspur, Schoolhouse Road, Shawn Clubb. 3/27 Blue-gray Gnatcatcher, Castlewood, Mike Brady; Chipping Sparrow, Tower Grove Park, Gail Ahumada; 3/28 Yellow-throated Warbler, Castlewood, Tom Bormann, Marc Lund. 4/1 N. Rough-winged Swallow, Castlewood, Mike Brady; American Bittern, Little Creve Coeur, Paul & Barbara Johnson; Cattle Egret, Cahokia Mound, Frank Holmes; Barn Swallow, Horseshoe Lake, Frank Holmes; Ovenbird, Babler, Eugenia Larson; 4/2 Lincoln's Sparrow, Tower Grove Park, Eugenia Larson. 4/5 N. Parula, Castlewood, David Becher; Willet, Riverlands, David Becher. 4/7 Lark Sparrow, near Horseshoe Lake, Jackie Chain. 4/8 Sharp-shinned Hawk, Horseshoe Lake, Jim Ziebol. 4/9 Black-necked Stilt, BK Leach, David Rogles. 4/10 Black-and-white Warbler, Stimler Cave Woods, Shawn Clubb; Chimney Swift, Granite City, Frank Holmes. 4/16 LeConte's Sparrow, Shaw Nature Reserve, Brad Jacobs; Henslow's Sparrow, Shaw Nature Reserve, Staff. 4/17 Marsh Wren, Riverlands, Jim & Charlene Malone. 4/18 Sora, Horseshoe Lake, David Becher; E. Kingbird, Horseshoe Lake, David Becher; Marbled Godwit, Columbia Bottom, Loy Barber, Jim & Charlene Malone; Long-billed Dowitcher, Stonehenge, David Becher; Wilson's Phalarope, Stonehenge, David Becher; Semipalmated Plover, Columbia Bottom, David Rogles, Jim & Charlene Malone; Prothonotary Warbler, Shaw Nature Res., Peter Keyel; Orange-crowned Warbler, Tower Grove Park, many observers; Cliff Swallow, Riverlands, Jim & Charlene Malone; Swainson's Thrush, Tower Grove Park, Peter Keyel, Babler, Jim & Charlene Malone; Grasshopper Sparrow, Columbia Bottom, Jim & Charlene Malone; Solitary Sandpiper, Columbia Bottom, Jim & Charlene Malone; Warbling Vireo, Carlyle Lake, Mike Thelen; Tennessee Warbler, Carlyle Lake Sewage, Mike Thelen; Broad-winged Hawk,

Castlewood, Mike Brady; Whip-poor-will, Castlewood, Mike Brady; Yellow-throated Vireo, Castlewood, Mike Brady; 4/19 Goshawk, Tyson, Nick Barber; Scarlet Tanager, Tyson, Nick Barber; Cerulean Warbler, Babler, Jim & Charlene Malone; Gray Catbird, Horseshoe Lake, Frank Holmes; Ruby-throated Hummingbird, Shaw Nature Res., David Becher; House Wren, Shaw Nature Res., David Becher; Dunlin, BK Leach, David Rogles; Short-billed Dowitcher, BK Leach, David Rogles; Stilt Sandpiper, BK Leach, David Rogles; Worm-eating Warbler, Babler, Charlene Malone. 4/23 Blue-winged Warbler, Tower Grove Park, Jim Rathert; Redstart, Tower Grove Park, Jim Rathert, Forest Park, Chris Ferree; Northern Waterthrush, Tower Grove Park, Mike Treffert; Least Flycatcher, Tower Grove Park, Jim Ziebol; Hooded Warbler, Riverlands, John Solodar; Indigo Bunting, Jefferson County, Bill Rudden; Baltimore Oriole, Shaw Nature Res., Don Hays; Summer Tanager, Shaw Nature Res., Don Hays; Blackpoll Warbler, Shaw Nature Res., Don Hays; Kentucky Warbler, Shaw Nature Res., Don Hays; Prairie Warbler, Shaw Nature Res., Don Hays; Common Yellowthroat, Shaw Nature Res., Don Hays; Red-eyed Vireo, Shaw Nature Res., Don Hays; Philadelphia Vireo, Shaw Nature Res., Don Hays; Great-crested Flycatcher, Shaw Nature Res., Don Hays. 4/24 Mississippi Kite, Webster Groves, Pat Lueders, Olivette, Dave Faintich; Golden-winged Warbler, Horseshoe Lake, Shawn Clubb; Yellow Warbler, Horseshoe Lake, Shawn Clubb, Lost Valley Trail, Jim Hickner, Young C.A., Jim Ziebol; Rose-breasted Grosbeak, Forest Park, Nick Barber; Blue-headed Vireo, Forest Park, Nick Barber; Wood Thrush, Forest Park, Nick Barber; Nashville Warbler, Forest Park, Nick Barber; Hudsonian Godwit, Stonehenge, Dick Coles; Orchard Oriole, Horseshoe Lake, Jack Cowan, Lost Valley Trail, Paul & Barbara Johnson; Chestnut-sided Warbler, Forest Park, Chris Ferree; Yellow-breasted Chat, Lost Valley Trail, Paul & Barbara Johnson. 4/25 Forster's Tern, Busch, David Becher; Black-bellied Plover, Riverlands, Josh Uffman. 4/26 Veery, Tower Grove Park, David Becher; Gray-cheeked Thrush, Tower Grove Park, David Becher; Cape May Warbler, Tower Grove Park, many observers; Osprey, Busch, Marc Lund; White-



Cape May Warbler on Pawpaw flowers, Photo at [http://en.wikipedia.org/wiki/File:Dendroica\\_tigrina\\_FWS.jpg](http://en.wikipedia.org/wiki/File:Dendroica_tigrina_FWS.jpg)

4/26 White-faced Ibis, Cahokia Mounds, Frank Holmes; Bay-breasted Warbler, Castlewood, Tom Bormann. 4/27 Caspian Tern, Riverlands, Charlene Malone, Bill Rudden; Bobolink, Powers Road & H, Charlene Malone; Avocet, Clarence Cannon, Josh Uffman; Blue Grosbeak, Cahokia Mounds, Shawn Clubb. 4/28 Blackburnian Warbler, Blackburn Park, Bob Bailey; Glossy Ibis, Little Creve Coeur, Paul & Barbara Johnson. 4/29 Yellow-billed Cuckoo, Blackburn Park, Nick Barber. 4/30 Surf Scoter, Horseshoe Lake, Keith McMullen; Sedge Wren, Shaw Nature Res., Don Hays; Wilson's Warbler, Tower Grove Park, Bill Heady. 5/1 Clay-colored Sparrow, Shaw Nature Res., Debbie Trowbridge; Common Nighthawk, Granite City, Frank Holmes. 5/2 Dickcissel, Cahokia Mounds, David Becher, Horseshoe Lake, Sherry McCowan; Bell's Vireo, Horseshoe Lake, Sherry McCowan; Bewick's Wren, Busch CA, Jack Cowan; Common Tern, Horseshoe Lake, David Becher.

April Sightings: Common Loons were scarce, with only 4 present on 3 different days at HL (FH, JZ). Great Egret, Snowy Egret, and Kingfisher were found in FP (CZ). At the end of April, Frank Holmes counted 16 Yellow-crowned Night Herons at Wilson Park in Granite City. An American Bittern, seen at Little Creve Coeur on 4/1, was a good find by Paul & Barbara Johnson. On 4/14, Shawn Clubb counted

36 Little Blue Herons and 25 Cattle Egrets at Frank Holten State Park in East St. Louis. Two White-faced Ibis located at Cahokia Mounds in 4/26 by Frank Holmes and a Glossy Ibis seen at Little Creve Coeur on 4/28 by Paul & Barbara Johnson were very good finds.. A flock of 125+ Blue-winged Teal was seen at Bruns Road on 4/19 (FH, JZ). Four Black Scoters and a Willet were found at Riverlands on 4/5 (D Becher). David Rogles visited BK Leach on 4/8 and reported Black-necked Stilt, 400 Pectoral Sandpipers, 30 Greater Yellowlegs, 70 Lesser Yellowlegs, 25 Snipe, 6 Baird's Sandpipers, and 5 Golden Plovers. Frank Holmes discovered 17 Greater Yellowlegs, 2 Lesser Yellowlegs, and 2 Snipe on Bischoff Road on 4/10. Late sightings of Willets included 1 at Little Creve Coeur on 4/28 (Paul & Barbara Johnson), 1 at Stonehenge on 4/30 (Dick Coles), and 2 at Columbia Bottom on 4/30 (Joe Pinnell). Two Bonaparte's Gulls seen at HL on 4/19 were somewhat late (FH). On 4/29, 2 Caspian Terns were seen at Lincoln Shields (B Rudden). A remarkably tame Sharp-shinned Hawk, seen walking around the ground on Bischoff Road on 4/3, was truly amazing (JZ). Jim Ziebol also reported a Sharp-shinned Hawk at BCA on 4/11. A N. Harrier was found at CBCA by Les Jenkins on 4/3. On 4/18, Mike Brady reported the following at CSP: Whip-poor-will, Yellow-throated Vireo, Broad-winged Hawk, Blue-winged Teal, Shoveler, and Wood Duck. Mark Peters noted that Whip-poor-wills and Screech Owls are no longer being seen or heard on his Jefferson County prairie. On 4/2, Gail Ahumada watched a branchling Great Horned Owl at TGP.

On 4/19, thousands of Tree Swallows were battling cold temperatures and north winds at HL (FH). A Sapsucker and a pair of Pileated Woodpeckers were seen at Tyson on 4/11 by Scott Marshall. A large flock of about 150 American Pipits was found at CL on 4/18 (MT). Shawn Clubb located 2 Prairie Warblers at Lost Valley Trail on 4/28. The first Cerulean Warbler was seen at Babler on 4/19 (J&CM); another migrating Cerulean Warbler was found by Nick Barber at Tyson. Cerulean Warblers also returned to their traditional nesting sites at Lost Valley Trail and Castlewood, where they were reported by many observers in April. On 4/24, Rose Ann Bodman saw a Worm-eating Warbler

June 2009 www.WGNSS.org

at TGP and Jean Cook found a pair of Hooded Warblers there on the same date. Lark Sparrow, Vesper Sparrow, and 7 Cattle Egrets were seen in the HL area on 4/7 (J Chain). Swamp Sparrows migrating on 4/18 were seen at Blue Grosbeak Trail (JZ, YH), at Busch (J Chain), and Blackburn Park (NB). A trip to TGP on 4/23 yielded Redstart, Tennessee, Blue-winged, N. Waterthrush, Ovenbird, Least Flycatcher, Rose-breasted Grosbeak, Swainson's Thrush, Purple Finch, White-eyed Vireo, and Yellow-throated Vireo (Jim Rathert, JZ); a Scarlet Tanager was also seen (Mike Treffert). On 4/4, the Saturday Group saw Ross's Goose, American Bittern, Bonaparte's Gulls, and all three Merganser species at Riverlands, while Vesper Sparrows were seen near HL (D Becher). Sherry McCowan went to Lafayette Park on 4/26, where she observed Blue-headed Vireo, Orange-crowned Warbler, several Nashville Warblers, Black-and-white, Ruby-crowned Kinglet, House Wren, and E. Towhee.



Blue-headed Vireo. Photo from [http://en.wikipedia.org/wiki/Blue-headed\\_vireo](http://en.wikipedia.org/wiki/Blue-headed_vireo)

A typical day at Lost Valley Trail on 4/18 included Spotted Towhee, several N. Parulas, Yellow-throated Warbler, Louisiana Waterthrush, 2 Black-and-whites, 4 White-eyed Vireos, and 2 Red-headed Woodpeckers (Jack Cowan, Shawn Clubb). A typical day at TGP on 4/26 included Blackpoll, Tennessee, Yellow-rumped, Nashville, N. Parula, and Black-throated Green Warblers, Warbling Vireo, White-eyed Vireo, Blue-headed Vireo, Rose-breasted Grosbeak, Summer Tanager, Indigo Bunting, Great-crested and Least Flycatchers, Swainson's

and Gray-cheeked Thrush, Lincoln's, White-crowned, and Field Sparrow, E. Towhee, 2 Cooper's Hawks, and a dozen Great Blue Heron flyovers (BB, Sue Gustafson).

Backyard Birds: Josh Uffman reported both Veery and Gray-cheeked Thrush at his bubbler on 4/26. Good birds for Margy Terpstra included Ruby-throated Hummingbird on 4/23, Cerulean Warbler on 4/24, Indigo Bunting on 4/24, Northern Waterthrush, Nashville, Tennessee, Great-crested Flycatcher, and Warbling Vireo on 4/25; Margy also reported a pair of Mallard ducks feeding and swimming in her natural wetland and pond for several days.

Contributors: Gail Ahumada, Connie Alwood, Nick Barber, David Becher, Torrey Berger, Rose Ann Bodman, Tom Bormann, Mike Brady, Jackie Chain, Shawn Clubb, Dick Coles, Steve Faintich, Chris Ferree, Frank Holmes, Yvonne Homeyer, Les Jenkins, Dan Kassebaum, Ann Kirkpatrick, Chris Kirmaier, Pat Lueders, Marc Lund, Charlene & Jim Malone, David Marjamaa, Scott Marshall, Anne McCormack, Sherry McCowan, Joe Pinnell, Jim Rathert, David Rogles, Bill Rudden, John Solodar, Mike Thelen, Josh Uffman, Clarence Zacher, Jim Ziebol.

Abbreviations: BCA, Busch Conservation Area; CBCA, Columbia Bottom Conservation Area; CC, Clarence Cannon NWR; CL, Carlyle Lake; CSP, Castlewood State Park; FP, Forest Park; HL, Horseshoe Lake; LCCL, Little Creve Coeur Lake; MBG, Missouri Botanical Garden; MTC, Marais Temps Clair; RMBS, Riverlands Migratory Bird Sanctuary; SNR, Shaw Nature Reserve; TGP, Tower Grove Park.

## A UNIQUE POPULATION OF FESTIVE TIGER BEETLE IN SOUTHEASTERN MISSOURI

Ted C. MacRae

The festive tiger beetle (*Cicindela scutellaris*, right) is widely distributed in the U.S., having been recorded from most areas east of the Rocky Mountains except Appalachia, the lower Mississippi River delta, and south Florida. Within this range, the species occupies deep, dry sand habitats without standing water. It is often

found in the company of the big sand tiger beetle (*C. formosa*), whose range largely coincides with that of *C. scutellaris* (except the southeastern Coastal Plain). More than any other North American *Cicindela*, populations of this species show extraordinary variability in color across its range of distribution. Seven geographically recognizable subspecies are generally accepted, with considerable variation evident within some of these and along zones of contact between them.

The greatest portion of the species' range is occupied by the nominotypical subspecies in the Great Plains and subspecies *lecontei* in the Midwest and northeast. A broad zone of intergradation occurs between these two subspecies along the upper Missouri River. Other subspecies occupy more limited ranges along the upper Atlantic Coast (*rugifrons*), southeastern Coastal Plain (*unicolor*), eastern Texas and adjacent areas of northwestern Louisiana and southwestern Arkansas (*rugata*), and north-central Texas (*flavoviridis*), and the highly restricted and disjunct *yampae* is found only in a small area of northwestern Colorado. Populations in the upper Midwest and Canadian prairie are sometimes regarded as distinct from *lecontei* (designated as subspecies *criddlei*) due to their broadly coalesced marginal elytral maculations, and an apparently disjunct population of small, blue individuals in south Texas may also be regarded as subspecifically distinct.





Although Missouri lies well within the boundaries of its range, this species has been found in only three widely-separated parts of the state – near the Missouri River in the northwest part of the state, near the Mississippi River in the extreme northeast corner, and in the southeastern lowlands (formally known as the Mississippi River Alluvial Basin). The two northern Missouri populations are assignable to and typical of *lecontei*, with their uniform dull maroon to olive green coloration and continuous to near-continuous ivory-colored border around the outer edge of the elytra. Additional dry sand habitats occur along the lower Missouri River in central and east-central Missouri and along some of the larger rivers that drain the Ozark Highlands; however, this species has not been located in these habitats despite their apparent suitability and occurrence of *C. formosa* with which it frequently co-occurs. The reasons for this distributional gap between the northern and southern populations – some 400 miles in width – remain a mystery. The southeastern Missouri population is not clearly assignable to any subspecies, apparently representing an intergrade between *lecontei* to the north and *unicolor* to the south. Accordingly, individuals from this area are known by the unwieldy appellation “*Cicindela scutellaris lecontei* x *scutellaris unicolor* intergrade.” Pearson et al. (2005) states that intergrades between *lecontei* and *unicolor* are evident only in northern “Missouri” (an obvious error for Mississippi) and Tennessee. Thus, the existence of intergrades in southeastern

Missouri suggests that the zone of intergradation extends further north than previously realized.



Prior to this season, my colleague Chris Brown and I had located two main population centers in the southeastern lowlands – one at [Holly Ridge Conservation Area](#) in Stoddard County, and another at [Sand Pond Conservation Area](#) in Ripley County. Holly Ridge is located on Crowley’s Ridge – an erosional remnant of Tertiary sand and aggregate sediments left behind by the late Pleistocene glacial meltwaters whose scouring action formed the surrounding lowlands, while the sandy sediments at Sand Pond were deposited west of Crowley’s Ridge along the southeastern escarpment of the Ozark Highlands during that same period. These erosional and depositional events created the deep, dry sand habitats that *Cicindela scutellaris* requires. I had known also about the Sikeston Sand Ridge further to the east – another erosional remnant of Tertiary sands deposited by the ancient Ohio River – but had not explored it closely until this season when I initiated my surveys at [Sand Prairie Conservation Area](#). I expected *C. scutellaris* might occur here, and in my first fall visit in early September I found two individuals in the sand barrens (alongside *C. formosa*). Another individual was seen here in early October, but more robust populations were observed at a small, high-quality sand prairie remnant (last photo) further to the south along the Sikeston Ridge, and around eroded sand barrens behind private residences still further to the south. Clearly, the species is well-established in the southeastern lowlands wherever open dry sand habitats (such as the below) can be found.



The individuals shown here exemplify the range of variation exhibited by *C. scutellaris* populations in southeast Missouri. They greatly resemble subspecies *unicolor* by their uniform shiny blue-green coloration. Indeed, the individual in the first photo might well be classified as such due to the complete absence of white maculations along the elytral border. Most individuals, however, show varying development of such maculations, ranging from small disconnected spots to the more developed apical “C”-shaped mark – clearly an influence from subspecies *lecontei*. Another apparent *lecontei* influence is the suffusion of wine-red or maroon coloration that can be seen on the head, pronotum, and elytra of the individuals in photos 2 and 4. These characters make this population divergent from the typically monochromic *unicolor* (as its name suggests). Because of their bright green coloration and white maculations, individuals in this population greatly resemble subspecies *rugifrons*, but that subspecies is limited to the northern Atlantic seaboard. They also resemble the common and widespread *Cicindela sexguttata* (six-spotted tiger beetle) but can be distinguished from that species by the more noticeably domed profile of the elytra, rounded rather than tapered elytral apex, and dark labrum of the female (both sexes of *C. sexguttata* have a white labrum).

There is one additional sand ridge in Missouri’s southeastern lowlands – the Malden Ridge. This sand ridge occurs south of Crowley’s Ridge and is much smaller than the Sikeston Ridge. No significant remnant habitats remain on the Malden Ridge, but it is possible

that sufficient areas of open sand remain that might support populations of *C. scutellaris*. Determining whether this is true will require some time studying Google Earth and even more time on the ground to search them out. If they do exist, however, it will be interesting to see what level of influence by *lecontei* is exhibited in this most southerly of Missouri populations. Only spring will tell!

**Read more of Ted’s insect musings on his blog:** <http://beetlesinthebush.wordpress.com/>

## **EXTINCTION MEANS GONE FOREVER**

Paul Bauer

The book *Birds of the St. Louis Area: Where and When to Find Them* will soon become extinct—no longer existing! All printed copies will have been sold.

The initial printing of 3000 copies was sold out in 18 months. The 1998 Revised Edition of 2100 copies with 80 revisions is nearly gone. A push is on to sell the remaining copies. Reprinting without another revision is not practical, nor is it financially sensible. Any new revisions for a few new bird species, or several added birding locations, can be provided on the WGNSS web site at no cost to WGNSS or to the birder.

This spring may be the last chance to obtain a copy if you are a new birder, or new to the St. Louis area. For experienced birders with well-worn copies, now is your final chance to get a fresh copy of the 17 color maps, 343 bar graphs of seasonal abundance, and 380 species accounts with rare dates and likely locations. Did I forget to mention detailed directions to 125 birding locations all within 50 miles of the St. Louis city limits? Consider buying a spare copy to offer to future new birders!!

**Where can you obtain a copy of this unique regional bird book?**

The best locations are the Missouri Botanical Garden and Shaw Nature Reserve gift shops, or by mail from: American Birding Association, 1-800-634-7736, item 308.

Other sources include the MDC Powder Valley and MDC Busch Conservation Area gift shops; Wild Bird Center at 5438 Southfield Center, 314-842-1496; Wild Birds Unlimited at 9987 Manchester Road, 314-821-2266. If your local wild bird store doesn't have copies, ask them to contact Randy Korotev of WGNSS at 314-993-0055.

Decide quickly if you need a new copy of this exceptional local birding resource. Remember, **out of print = extinction.**

### **ATTEND THE DRAGONFLY SOCIETY OF THE AMERICAS MEETING IN SULLIVAN**

The Dragonfly Society of the Americas is comprised of several hundred members from North and South America (most members are from the U.S. and Canada). Identification skills range from novices to those with global expertise. This year's event is headquartered out of Sullivan. There is no fee to attend and membership to the society is not mandatory. So if you would like to learn more about dragonflies, you are most welcome to attend at any point (pre-trip meeting, formal meeting and post-trip meeting.) Formal presentations will be given on **Saturday, June 20**. The following link has all of the relevant information-  
<http://www.odonatacentral.org/index.php/PageAction.get/name/DSAAnnualMeeting>

Paul McKenzie and Jane Walker are handling the logistics. Any questions you might have can be addressed to them. Contacts: Paul McKenzie <paul\_mckenzie@fws.gov> (573-445-3019 H and 573-234-2132 ext. 107 W) and Jane Walker <j.walker\_smentowski@yahoo.com> (314-965-6522)

General information about the society can be found at:

<http://www.odonatacentral.org/index.php/PageAction.get/name/DSAHomePage>

### **BEES AND POLLINATORS: THE CONSERVATION OF OUR NATIVE POLLINATORS DINNER AND FIELD PROGRAM**

Discover the buzz about native pollinators and bees with Ed Spevak, Curator of Invertebrates and Jim Jordan, bee keeper. About

90 percent of all flowering plants need the help of animals to move pollen from flower to flower for the production of fruits and seeds. Native bees are the most important group of pollinators. These informative programs take place during National Pollinator week and include an evening dinner and a field program experience on the weekend.

### **Pollinator Dinner**

Join us for a special Pollinator Dinner on Tuesday evening **June 23** from 6-9 pm and sample the many foods brought to you by bees. Mead will also be part of the dinner fare. Tables and displays will be set up for your perusal during a happy hour including a honey tasting. After dinner a presentation about pollinators will focus on the current situation and what you can do to help. \$29.95/person includes dinner and program. Call (314) 646-4857 for reservations and payment by credit card.

Come for an in-depth look at native pollinators on **Saturday June 27** from 9 am-noon as we observe them in the Zoo's Missouri Meadow. In North America there are over 4,000 species of bees with around 20,000 species worldwide. In fact there are more species of bees in the world than all mammals and bird species combined. Native bees, along with the European honey bee, are essential for pollinating our crops, and maintaining plant communities that provide food and shelter for other animals. Discover how important these species are to the planet and to humans, how they are threatened and how to help their conservation. There will also be a honey tasting as part of the program. Program participants meet in the Living World.

Instructor: Ed Spevak and Jim Jordan

Fee: ZFA Members \$35/General Public \$40

### **WGNSS MEMBERSHIP DUES ARE DUE!!**

The enclosed envelope should serve as a reminder that over the summer, your WGNSS membership dues are due. Official expiration dates are on your mailing label. Send in your dues, your address, your phone number, your email (if applicable), and let us know what format you prefer for the receipt of the newsletter.

**SAVE A TREE, CHANGE YOUR  
NEWSLETTER SUBSCRIPTION TO  
EMAIL!**

WGNSS from anyone, member or not is welcome.

A paperless version of the newsletter is available over email. Not only will this version save paper, it will allow you to see the included photos in color. If you are interested, please email me at [malinda.slagle@mobot.org](mailto:malinda.slagle@mobot.org). You can choose to also still receive the paper version of the newsletter, no need to contact me about that, or even both if you would like. Email me your preference.

**CALL FOR ARTICLES,  
ANNOUNCEMENTS, AND REPORTS**

Please submit announcements of nature-related events in the St. Louis area to the editor's email [malinda.slagle@mobot.org](mailto:malinda.slagle@mobot.org). Also, original articles regarding nature, particularly local nature are encouraged (not reprints from elsewhere unless you have permission to reprint them). Some suggestions might be accounts of nature-oriented trips you have taken, information about local natural areas, reviews of nature books, or interesting nature sightings. I also always appreciate group reports. Anything pertinent to

## GROUP ACTIVITY/WALK SCHEDULES

June 2009 Update

**ORNITHOLOGY – SATURDAY Bird Walks**  
– David Becher (314-576-1146)  
(If destination not given, it's "Where the Birds Are". Always bring lunch.)

There are no Saturday bird walks in the summer.

**ORNITHOLOGY – THURSDAY BIRD WALKS** – Jackie Chain – Leader (314-644-5998)

Thursday birding trips will resume meeting at 8am at Des Peres Park parking lot off Ballas Rd north of Manchester Rd from June 4 through the month and again August 6 through August and into the fall.

For July dates, please check with Jackie Chain at 314-644-5998 before coming to the park.

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**BOTANY WALKS** – Jeannie Moe – Co-Chair, Co-Leader (636) 946-9802  
George van Brunt – Co-Chair (314) 993-2725  
Leader – Fr. James Sullivan (starting his 43rd yr. in January, 2009)

Botany walks are on Monday. The Botany group visits many of the same locations as the Bird group: Busch Conservation Area, Shaw Nature Preserve, the Missouri Botanical Garden, Babler State Park and Cuivre River State Park. Learning plants will help you learn butterfly host plants. Sign up for Botany Group emails from Jack Harris ([jahar@mac.com](mailto:jahar@mac.com)) or 314-368-0655 and receive an email every Sunday, sometimes earlier, about the next Monday's trip.

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**ENTOMOLOGY GROUP ACTIVITIES** – Rich Thoma, Chair (314) 965-6744

There are no entomology meetings schedules during the summer. However, entomology members can look forward to periodic e-mail updates throughout the summer. If anyone would like to get on the e-mail list, feel free to

contact Richard Thoma at [thomarkas4@sbcglobal.net](mailto:thomarkas4@sbcglobal.net). If you have anything insect related you would like to post, you can send the information to this e-mail address and it will be forwarded on to the group. Likewise, if you are planning an insect collecting field trip and would like some companions, this information too can be sent to the above e-mail address and it will be posted to the entomology group. Have a great summer.

For general information about WGNSS, contact Membership Chairman Paul Brockland at 314-961-4661.