



Nature Notes

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PRESIDENT'S CORNER

Ann Earley

Many thanks to our April general program meeting speaker Bob Bailey, who presented a very helpful and informative program on "Birding by Ear" to conclude our general program meeting year for 2008-09. We appreciate all of our program meeting speakers who have shared their knowledge, experiences and time with WGNSS during the past months. Planning is already underway for our WGNSS program meetings to be held in September and the following months. **Please consider sharing your adventures and insights from your travels and experiences in the field with fellow WGNSS members and nature enthusiasts at a future program meeting.** If you would like to present a program, or have suggestions for speakers or topics of interest, please contact First Vice President/Program Chair Shawn Clubb. His contact information, along with that of other WGNSS Board members, can be found near the end of this newsletter.

At the April program meeting, our annual election of officers and Board members was held. Layne Van Brunt was re-elected to serve a full term as Society Secretary. **We continue to seek a volunteer to serve as WGNSS Treasurer to replace Mike Olson.** If you are interested in this office, know someone who might be interested, or would like more information about what is involved, please contact me or Mike. Thank you to all who have volunteered to serve WGNSS as officers and Board members!

This year's **banquet** will be held on **Wednesday, May 6** at Eden Seminary Commons, with a cash bar and social time beginning at 5:30, followed by dinner shortly after 6:00 p.m. Botanist, plant explorer and author **Guy Sternberg** will be our featured speaker. You won't want to miss his presentation featuring "The World of Oaks." You will also hear about the research being conducted by this year's WGNSS scholarship recipients. If you have questions about the banquet or your reservations, please contact Second Vice President Jane Deschu. At the banquet, we will be honoring the recipients of the **2009 Lifetime Achievement Award**; this year the WGNSS Board voted to honor two of our members, **Carl Darigo** and **Jim Adams**, with this award. We hope you plan to join us on May 6 to honor Carl and Jim and thank them for their many contributions to WGNSS.

As our WGNSS program year draws to a close, we want to remind members that dues renewal time is approaching. More information will appear in subsequent newsletters, but we hope you will plan to promptly renew your membership. We value our members and appreciate your support of WGNSS!

WGNSS WELCOMES A NEW MEMBER!

WGNSS extends a hearty welcome to new member Ryan Fairbanks of Maryland Heights.

OLIVE GENTILE BOOK SIGNING AND BIRDING OPPORTUNITY

Olive Gentile, author of the new biography of Phoebe Snetsinger, *Life List: A Woman's Quest for the World's Most Amazing Birds*, will be doing a book signing and birding with the Saturday group on May 16 at 8 am at Castlewood State Park.

As newsletter editor, I received an advance copy of the book to review, which was very engaging. Snetsinger, as many of you already know, was a longtime member of WGNSS. She was a housewife and mother of four but felt trapped in her home, like it was a tomb. A friend showed her a warbler one day in her binoculars and it was a revelation to her. After she was diagnosed with terminal cancer, she traveled around the world to try to see as many birds as possible and eventually had a longer life list than anyone else, more than 6000 birds! Those interested should attend the event to find out more!

FEBRUARY BOTANY REPORT Compiled by George van Brunt

February 2, 2009 Botany Field Trip Submitted by Nels Holmberg

Ground Hog Day was celebrated by 7 hikers revisiting an old favorite site at Babler State Park. We didn't find a ground hog, but we saw tracks in the snow of deer, turkey and rabbits. And we did find dried fruit on an old favorite at the site, strawberry shrub or Carolina allspice (*Calycanthus floridus*). The plant was first found at this site by Art Christ and Fr. Sullivan in about 1985, and was vouchered by Carl Darigo during a WGNSS trip on April 20, 1995. Although not native to Missouri, it has been found growing wild in the state in at least 4 other locations. It is native to the moist woods of southeast U. S., and is cultivated for its unusual maroon flower. It has been selected as a Plant of Merit by the Missouri Botanical Garden. It is in its own small family, Calycanthaceae, with other members found in China and Australia.

No plants were found in bloom on this trip, but the bulging buds of a slippery elm (*Ulmus rubra*) showed there was hope of some soon. Also found were buds on spice bush (*Lindera*
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benzoin) and catkins on Eastern hop hornbeam (*Ostrya virginiana*).

Many grasses were identifiable from last year's growth, including bottlebrush grass (*Elymus hystrix*), beakgrass or woodchuck grass (*Diarrhena obovata*), river oats or spangle grass (*Chasmanthium latifolium*), Virginia wild rye (*Elymus virginicus*), purpletop or grease grass (*Tridens flavus*), and deer-tongue grass (*Panicum clandestinum*).

The group spent some time examining and discussing white ash (*Fraxinus americana*) buds and leaf scars. Again it was confirmed it has 2 forms: 1 with light brown buds and flat topped leaf scars and 1 with dark brown buds and deeply notched leaf scars. The group discussed the possibility of getting a molecular evaluation made of the 2 forms, thinking there might be 2 species, and naming the new one *Fraxinus wgnssata*.



Fraxinus americana buds
Photo by Joseph O'Brien, USDA Forest Service
At <http://commons.wikipedia.org>

February 9, 2009 Botany Field Trip
Contributed by John Oliver

Nine botanists (Fr. Sullivan, Wayne and Nancy Clark, Bob Coffing, Tom Kullman, George Van Brunt, Jack Harris, Jeannie Moe, and John Oliver) assembled on a cool but mostly sunny morning at Pea Ridge Conservation Area in Washington County. This area, a few miles southeast of Meramec State Park, is well known

among plant-lovers for its population of *Hamamelis vernalis* (Ozark witch hazel) trees along Indian Creek. This is the first woody species to blossom each year in Missouri, and we were happy to find several of the trees already in fragrant bloom. Other trees and shrubs associated with the witch hazel along the creek included *Platanus occidentalis* (sycamore), *Lindera benzoin* (spicebush; w/ flower buds), *Aesculus glabra* (Ohio buckeye), *Carpinus caroliniana* (musclewood), *Fraxinus americana* (white ash) and two species of black haw, *Viburnum rufidulum* and *Viburnum prunifolium*.

Crossing the creek and examining the low bluffs on its north bank, early, non-blooming evidence of *Aquilegia canadensis* (columbine) and *Anemone acutiloba* (hepatica) were observed, as well as a colony of *Asplenium rhizophyllum* (walking fern).

The Conservation Area also includes a large open area which is in the process of being reclaimed from agricultural use. Walking around this area and its wooded border, we identified the following plants (mostly from seed heads or dried foliage): *Hypericum perforatum* (Klamath weed), *Pycnanthemum tenuifolium* (slender mountain mint), *Ratibida pinnata* (grayhead coneflower), *Daucus carota* (Queen Anne's lace), *Andropogon gyrans* (Elliott's broomsedge), *Carex glaucoidea* (blue sedge), *Penstemon digitalis* (smooth beard-tongue), *Solidago gigantea* (late goldenrod), *Solidago altissima* (tall goldenrod), *Cirsium discolor* (field thistle), and *Cirsium altissimum* (tall thistle). There were several young trees of *Pinus echinata* (short-leaf pine) in this area also. This is the only pine native to Missouri and caused us to take a second look to verify its identity because it seemed unusual in this habitat. There were also specimens of *Pinus strobus* (eastern white pine) along the road near the parking area. Other woody species observed included *Asimina triloba* (pawpaw), *Ulmus rubra* (slippery elm; w/ flower buds), *Cercis canadensis* (eastern redud), *Sambucus canadensis* (common elderberry), *Acer saccharum* (sugar maple), *Acer negundo* (box elder), *Gleditsia triacanthos* (honey locust), *Rhus aromatica* (aromatic sumac; w/ flower buds), *Rhus glabra* (smooth sumac), *Celtis occidentalis* (hackberry), *Diospyros virginiana* (persimmon), *Ostrya virginiana* (hop hornbeam),
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Sassafras albidum (sassafras), *Cornus florida* (flowering dogwood; w/ flower buds), *Euonymus atropurpureus* (wahoo), *Quercus imbricaria* (shingle oak), *Quercus alba* (white oak), *Carya tomentosa* (mockernut hickory), *Carya ovata* (shagbark hickory), and *Carya cordiformis* (bitternut hickory).

February 16, 2009 Botany Field Trip

Contributed by Jack Harris

St. Francois State Park, MO

A calm and frigid (27 degrees) day under clear skies likely contributed to the small turnout of seven (7) WGNSS botany group members: Fr. Sullivan, George Van Brunt, John Oliver, Wayne & Nancy Clark, Nels Holmberg, and Jack Harris. As the group crunched over the frozen ground, they headed south from the St. Francois State Park Mooner's Hollow parking area. The plan was to explore in the natural shelter of the land below the high south facing slopes and the leafless forest on the floodplain of the Big River. From there we would soon welcome the sun's thawing rays.

After only a hundred yards or so from the cars, the surprise of the day was the discovery of a small population of frost flowers along the edge of a closely tended recreation area. We determined that these were derived from the remnant stems of *Verbesina virginica* (white crownbeard) plants that had encroached on the mowed recreation area and had been whacked off about 4 - 5 centimeters above ground level. There was just enough stem left to produce a variety of short, clumpy, curly shapes of extruded ice tissues that glistened conspicuously white. These fragile phenomena would soon be evaporated under the power of the sun's rays.



Close-up of frost flower
Photo by Kostian at <http://www.wikipedia.org>

Nearby Fr. Sullivan spotted the only live flower of the day, a single, diminutive blue *Veronica sp.* (speedwell) nestled in the mowed grass area.

Entering the edge of the wooded area, we encountered *Asimina triloba* (pawpaw). The long, slim brown paintbrush-shaped buds at the tips of the twigs would emerge as new leaves, while the nearby small globular brown buds along the side of the twig would soon be components of the spring wildflower display. The winter botany forms of *Verbesina virginica* (white crownbeard) and *Verbesina alternifolia* (yellow ironweed), found in a mixed population, prompted a comparison of the remnant inflorescence (receptacle, bracts, pappus, et al) shapes. The yellow ironweed is clearly spherical, while the white crownbeard is of a prominent "V" profile. And on the ground here were many large acorn caps. These had a coarse, rough outer surface and a shaggy, wiry fringe around the edge - revealing the presence of nearby *Quercus macrocarpa* (bur oak), the largest acorn among the North American oaks. Farther along the way were the remnant stems of *Blephilia hirsuta* (wood mint). These stems with tiered increments of flower clusters around the stem remind some of a multi-storied pagoda-like structure. Traditionally pagodas have an odd number of floors. Does *Blephilia sp.* adhere to these construction practices? Perhaps next time we will remember to count?

While most of the group was seeking even the slightest signs of spring wildflowers, Nels Holmberg engaged in exploration of the nooks and crannies along the bluffs and talus for interesting looking bryophytes.

Around the bottomland, sparse scattered occurrences of green were peeking through the continuous brown leaf cover on the ground. Closer examination led to the identification of the basal leaves of *Polymnia canadensis* (pale-flowered leaf-cup), *Claytonia virginica* (spring beauty) and *Phacelia purshii* (Miami mist). Last but not least, a couple of robust leaf clusters of the exotic *Ornithogalum umbellatum* (star of Bethlehem) seemed to be sending a strong signal of spring - a message in which all members of the botany group would be happy to concur.

February 23, 2009 Botany Field Trip

Contributed by George Van Brunt

Nine late-winter botanists met at Queeny Park near the Greensfelder Recreation Complex. The sky was blue with temperatures in the low thirties and, fortunately, no wind. We set off into a densely forested hillside, which to our chagrin, had an understory comprised almost entirely of *Lonicera maackii* (bush honeysuckle). The hillside was a good example of what this invasive exotic can do to the native plant population. The only diversity in this area was provided by trees which certainly were present before the invasion. They included *Maclura pomifera* (Osage orange), *Gleditsia triacanthos* (honeylocust), *Celtis occidentalis* (hackberry), and *Diospyros virginiana* (persimmon). We had to fight our way through the dense underbrush to reach the trail on the other side.

After we left the hillside of horrors, we were able to find more diversity, both native and exotic. Senescent plants we found included *Verbena urticifolia* (white vervain), *Teucrium canadense* (American germander), *Hackelia virginiana* (sticktight), *Elephantopus carolinianus* (Carolina elephant's foot), *Perilla frutescens* (beefsteak plant), and *Agastache nepetoides* (yellow giant hyssop). Dormant plants were *Cornus florida* (flowering dogwood), *Ailanthus altissima* (tree-of-heaven), *Carya cordiformis* (bitternut hickory), *Ampelopsis cordata* (raccoon grape), *Vitis aestivalis* (summer grape), *Acer negundo* (box elder), *Gymnocladus dioica* (Kentucky coffee tree), *Betula nigra* (river birch), *Taxodium distichum* (bald cypress), and *Populus deltoides* (eastern cottonwood).

We did not see much green on this trip, but we did find one green leaf of *Geum canadense* (white avens) and some green shoots of *Ornithogalum umbellatum* (Star-of-Bethlehem). The genus name, *Ornithogalum*, originates from the Greek words ορνις (ornis) meaning "bird" and γαλα (gala) meaning "milk"; "bird milk" refers to the white flowers. The classical Romans used the word ornithogale, their name for *Ornithogalum umbellatum*, as an expression of something wonderful, much like we might use "awesome", "cool" or "fantastic". This species is native to North Africa, Europe, and Western Asia and some scholars have suggested that the

bulbs of Star-of-Bethlehem were the Biblical dove's dung of which one fourth of a cab (one half of a pint) was sold for 5 shekels of silver during the siege of Samaria (see Second Kings 6:25). Some sources state that people have dried and roasted the bulbs for food since ancient times, using them to make a flour or just eating them like nuts. Other sources claim that *Ornithogalum umbellatum*, despite its reported use as a food, is a poisonous plant and should not be eaten. All plant parts, especially the bulbs, contain cardiac glycosides which can cause difficulty breathing, diarrhea, and abdominal pain. It is best to err on the side of caution.



Ornithogalum umbellatum
Photo by Ulf Eliasson at <http://www.wikipedia.org>

MARCH BIRD REPORT

Jim Ziebol & Yvonne Homeyer

Announcement: There will be an Ornithology program on Tuesday, April 28, at 7:00 p.m. at Powder Valley. The presenters will be – you! Birders are invited to bring digital media (CDs, DVDs, jump drives) and talk about their birding experiences here or on a trip.

February Sightings, Addendum: Anne McCormack had several flocks of migrating Snow Geese over her Kirkwood home on 2/7 through 2/12. Mike Thelen noted 1 White-winged Scoter at Riverlands on 2/1, a Red-shouldered Hawk at Cuivre River SP on 2/7, and 5 Red-headed Woodpeckers at CCNWR on 2/7.

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March Sightings: A Common Loon and 3 Horned Grebes were seen at HL on 3/16 (FH). On 3/8, 8 Horned Grebes were seen there (FH) and on 3/9, Connie Alwood saw 17 Horned Grebes at Riverlands. Two Snowy Egrets were seen along with Spotted and Pectoral Sandpipers at HL on 3/23 (FH). Reports of Greater White-fronted Geese included about 80 at HL on 3/8 (FH, JZ) and about 17 at CBCA on 3/22 (SC). Sightings of Ross's Goose included 1 at the HL causeway on 3/8 (JZ), 1 at Riverlands with 2 Snow Geese on 3/16 (CA), and 1 at Simpson County Park on 3/16. The first Blue-winged Teal were spotted on 3/7 (FH) and 100+ were counted at CBCA on 3/9 (CA). A young male Common Goldeneye, seen in FP on 3/13 by Sherry McCowan, may be a park record. The White-winged Scoter at Riverlands, first seen in December, remained there until 3/9 (CA). A female Cinnamon Teal was photographed, along with Blue-winged Teal, at Lincoln Shields/Riverlands on 3/23 (B Rudden). Other waterfowl at HL reported by Frank Holmes included 150 Buffleheads on 3/8; 1,550 Ruddy Ducks on 3/9; and 25 Lesser Scaup, 3500 Coots, 2 Black Ducks, and a Trumpeter Swan on 3/2. On 3/7, 2 Lesser Yellowlegs were reported at Riverlands (CA, CK). A Greater Yellowlegs and 7 Snipe were seen near Nichols Pond, HL, on 3/8 (FH, JZ). On 3/13, 200 Killdeer, 250 Snipe, 16 Lesser Yellowlegs, 2 Greater Yellowlegs, a Dowitcher species (probably Short-billed), 50 Pectorals, plus 100 Pipits and 6 Brewer's Blackbirds, were found at BK Leach (D Rogles). Pat Lueders led a SLAS field trip to BK Leach on 3/21 and found 100 Golden Plovers, a few Pecs, and a few Brewer's Blackbirds. Only about 20 Golden Plovers were seen at HL on 3/15 (FH) and a few were seen at Riverlands on 3/14 (B Rudden). On 3/22, Shawn Clubb reported Least Sandpiper, 9 Pecs, and 3 Great Egrets at Firma Road. Shawn also observed 200 Golden Plovers at Keeteman Road on 3/22. The first Baird's Sandpiper was seen at Riverlands on 3/22 (T Bormann, D Rogles). On 3/8, a few Bonaparte's Gulls had returned to HL (FH) and on 3/9, Connie Alwood saw a few Bonaparte's at Riverlands. The high count, however, was 42 Bonaparte's at HL on 3/22 (FH). Bill Rudden photographed a first winter Thayer's Gull at

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Riverlands on 3/25 and a first winter Glaucous on 3/21. Also on 3/21, Bill Rudden encountered what could have been the Greenland race of Greater White-fronted Goose. Mike Thelen visited Route 66 SP on 3/22 and observed 6 Red-shouldered Hawks kettling with talons touching (courtship behavior); he also saw both Kinglets. Bill Rudden photographed a dark phase Western Red-tailed Hawk near Hazlett SP on 3/13. The Harlan's Hawk that overwinters on Sand Prairie Lane near HL was last seen on 3/23 (FH).

The Great Horned Owls in TGP were being seen in early March (J Chain); by 3/22, Shawn Clubb and Julie Randle spotted two owlets with an adult. On 3/11, a pair of Great Horned Owls had fledged 2 young at N. County Rec. Area (K Paradise). Connie Alwood reported Great Horned Owls at FP on 3/17 and a Great Horned Owl nest at Busch. Phoebes were seen in good numbers this spring, including one at HL on 3/2 (FH), one at BCA on 3/7 (RAB), one at Route 66 on 3/8 (JZ), one at Wilson Park on 3/9 (FH), and one at Spanish Lake Park on 3/10 (KP). Tree Swallows were seen at Blue Grosbeak Trail on 3/8 (Marc Lund), at HL on 3/8 (FH), and at FP on 3/11 (Chris Ferree). Purple Martins returned to FP on 3/24 (SM). Fish Crows were observed at Castlewood on 3/8 (MB) and at HL on 3/16 (FH). About 50 Brown Creepers and a female Rusty Blackbird were seen in TGP on 3/25 (SF). Jim Ziebol filmed a Winter Wren in TGP on 3/19. On 3/11 in FP, Sherry McCowan noted a Ruby-crowned Kinglet displaying its red crown patch. On 3/27, a Blue-gray Gnatcatcher was seen with several Ruby-crowned Kinglets and Winter Wrens at Castlewood (MB). The Northern Shrike that overwintered at Blue Grosbeak Trail was still present on 3/7 (D Becher, Saturday Group). Al Smith photographed the Northern Shrike and a Harris' Sparrow on 3/14 at Blue Grosbeak Trail. Jackie Chain also found the Shrike and the Harris's Sparrow on 3/15, along with Purple Finch, Red-breasted Nuthatch, and several singing Field Sparrow in Busch. Another Northern Shrike was seen at CBCA on 3/12 by Joe Pinnell. Pat Lueders reported a Loggerhead Shrike at Hwy. 79 and Forma Road on 3/21. Pine Warbler, Snipe, Woodcock, and American Tree Sparrow were seen in FP on 3/6 (CF).



American Woodcock
Photo at <http://www.wikipedia.org>

On 3/7, the Saturday Group found Pine Warbler on the Fallen Oak Trail at Busch (RAB). Two singing male Pine Warblers were found at Busch on 3/22 (KP, J Moe). On 3/28, 2 Yellow-throated Warblers first appeared at Castlewood (T Bormann, ML). David Marjamaa had a Louisiana Waterthrush at Castlewood on 3/7. Another Louisiana Waterthrush was seen at LVT on 3/20 (J Moe). Chipping Sparrows came in across the area on 3/27, with several appearing at the east end of TGP (GA). Sherry McCowan counted 5 Swamp Sparrows in FP on 3/17. Bill Rudden located a Gambel's race of White-crowned Sparrow at Hazlett SP on 3/13. On 3/10, several Fox Sparrows were singing at Mo. Botanical Garden (AK). Jim Ziebol found several Vesper Sparrows on 3/23 at HL. Shawn Clubb reported 2 Lapland Longspurs on Schoolhouse Road near HL on 3/23. Connie Alwood refound the Spotted Towhee at LVT on 3/24 (first reported in February). The Thursday Group observed Pine Warbler, 2 Harris' Sparrows, Pileated Woodpecker, Fox Sparrow, Swamp Sparrow, and 2 male N. Harriers at various locations (J Chain). On 3/17, a Common Redpoll was seen at Powder Valley by Jane Fitzgerald and Tom Mills.



Pine warbler
Photo by Ken Thomas at <http://www.wikipedia.org>

A typical day at HL on 3/15 included 1,000+ Pelicans, 50 Cormorants, 8 Black-crowned Night Herons, 7 Great Egrets, 20 Green-winged Teal, 20 Wood Ducks, 30 Red-breasted Mergansers, 20 Hooded Mergansers, 20 Golden Plovers, 20 Snipe, 2 Harriers, a Merlin, Fish Crow, 35 Song Sparrows, 10 Am. Tree, a Rusty Blackbird (FH, JZ). A typical day at CBCA on 3/15 included Harlan's Hawk, Sharp-shinned Hawk, Greater Scaup, 16 White-fronted Geese, 2 Western Meadowlarks, Tree Swallow (MT). A typical day at Blue Grosbeak Trail on 3/15 included E. Phoebe, N. Shrike, Harris's Sparrow, and Fox Sparrow (MT).



Harris's Sparrow

Photo by Bob Hines, USFWS, in *Migration of Birds*, USFWS 1979.

Backyard Birds: Linda Virga reported 2 White-crowned Sparrows and a Hairy Woodpecker at her Affton home on 31. On 3/29, she saw a Chipping Sparrow, the first sighting in her yard since 1997. Dennis Bozzay reported Pine Siskins at his Crestwood yard on 3/6 and they were still present as of 4/13. Connie Alwood also reported a Pine Siskin on 3/10. On 3/14, Sherry McCowan saw a male E. Towhee, 2 Song Sparrows, and 3 Red-winged Blackbirds in her Soulard yard. A Field Sparrow was present on 3/21. Les Jenkins had a flyover Red-shouldered Hawk on 3/25. Clarence Zacher reported that a Yellow-bellied Sapsucker spent the winter in his yard. Margy Terpstra reported Brown Creeper on 3/24, a Phoebe and a Barred Owl on 3/25, and Winter Wren and Chipping Sparrow on 3/27.

Contributors: Gail Ahumada, Connie Alwood, David Becher, Torrey Berger, Rose Ann Bodman, Tom Bormann, Mike Brady, Jackie Chain, Shawn Clubb, Steve Faintich, Chris Ferree, Frank Holmes, Les Jenkins, Dan

Kassebaum, Ann Kirkpatrick, Chris Kirmaier, Pat Lueders, Marc Lund, Charlene & Jim Malone, David Marjamaa, Anne McCormack, Sherry McCowan, Jeannie Moe, Kraig Paradise, 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.

***CICINDELA CURSITANS* IN MISSOURI** **Ted C. MacRae**

Last summer, my colleagues Chris Brown, Kent Fothergill and I conducted additional surveys for selected tiger beetle species in Missouri. We placed 50 pitfall traps in western Missouri and 75 in the southeastern lowlands in mid-June and checked them weekly for several weeks. It was a frenetic schedule for all of us - working regular jobs all week and covering two different parts of the state during weekends. Add to that spouses, children, and the desire to watch television coverage of two little sporting events called Wimbledon and the Tour de France, and you have the makings of a severe case of sleep deprivation.

Even with such a focused, dedicated effort success is not assured. Our previous work over the past several years has generated copious data on the more common, widespread species of tiger beetles occurring in the state. The distributions and habitats of these species are well documented now - the low hanging fruit has been picked. We're now focusing on the last few, rare species - the critically imperiled *Cicindela circumpecta johnsonii*, found in the equally critically imperiled saline spring habitats of central Missouri; *Cicindela pruinina* in western Missouri, normally associated with grasslands habitats further west; and the enigmatic *Cicindela cursitans*, until last year known in Missouri from just a single specimen

collected somewhere “nr. Portageville” in the Mississippi lowlands of extreme southeast Missouri.



Cicindela cursitans

I am happy to report that robust populations of *Cicindela cursitans* were located at several spots along the Mississippi River. Many dozens of individuals were observed at two locations in Mississippi County, and another new population was located further south in New Madrid County. Combined with the sites discovered the previous year, this gives five confirmed sites for the species within the state. All of these sites share similar features - bottomland forest immediately adjacent to the Mississippi River, with an open understory dominated by poison ivy (*Toxicodendron radicans*) and trumpet creeper (*Campsis radicans*) (a ‘radical’ understory to say the least) on a ridge and swale topography of sandy loam soil. The beetles favor the relatively drier, more openly vegetated ridges but avoid areas of excessive sand. None were seen in the wetter sand beach areas leading down to the water’s edge, nor were any observed on the relatively sand-free soils found further away from the river. Unusual for tiger beetles, adults were never found in open sunny areas, being entirely restricted to forest habitats where they darted through the open understory from one poison ivy plant to another. This is in distinct contrast to the wet meadow habitats reported by [Brust et al. \(2005\)](#) for populations of this species in Nebraska. Their small size and rapid running capabilities made them quite difficult to capture or even to notice at first - appearing more like ants or small spiders.

Of equal interest are the sites where the species was not observed, which include sites along the St. Francois River (western side of the Mississippi lowlands) and along the Arkansas border in between the two river systems. All of these sites offered similar bottomland forest, open understory, and ridge and swale soil topography, but they differ from the sites along the Mississippi River where the species was observed in that the soils are a heavy clay and contain no sand. It’s difficult to say conclusively that the species does not occur in these habitats, but the abundance with which we have observed it in the Mississippi River habitats is strongly suggestive.

The Mississippi Lowlands of Missouri, once a vast assemblage of bald cypress (*Taxodium distichum*) and tupelo gum (*Nyssa aquatica*) swamps and mixed deciduous bottomland forest, have been almost completely drained, cleared, and converted to agriculture. Only small remnants of natural forest and swamp remain amongst the fields of soybean, wheat, corn, rice and cotton. Despite this, the ribbons of forest that occupy the narrow corridor between the Mississippi River and the levees that confine it seem to offer much potential habitat for *Cicindela cursitans*. Combined with their confirmed occurrence and abundance at several sites within this habitat, it appears that this species is secure within the state and will not require any special conservation measures to assure its continued presence. In celebration, I share with you some photographs of the adults, taken in their natural habitat at one of the Mississippi County sites, along with a few additional photos of some other tiger beetle species I observed on the wet sand beaches closer to the river’s edge. These latter three species are common in Missouri along the Mississippi and Missouri Rivers: *Cicindela repanda* (bronzed tiger beetle, pictured below),



Cicindela cuprascens (coppery tiger beetle, below),



and *Cicindela hirticollis shelfordi* (hairy-necked tiger beetle, photo below). After taking pictures



of these latter three species along the river bank amidst puzzled looks from a few of the locals, I had an amusing conversation with one of the more ‘colorful’ of them, who had come to the baffling conclusion that I could only have been taking pictures of rocks. I cleared up the confusion and showed him a few of the beetles, and we both returned to doing what we both love - drinking beer and looking for beetles (respectively, that is!).

REFERENCE:

Brust, M., W. Hoback, and C. B. Knisley. 2005. Biology, habitat preference, and larval description of *Cicindela cursitans* LeConte (Coleoptera: Carabidae: Cicindelinae). *The Coleopterists Bulletin* 59(3):379–390.

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

2009 MICKEY SCUDDER AND MENKE SCHOLARSHIP WINNERS

Rich Thoma

Congratulations to the following students who have been chosen as this year’s recipients of the Menke and Mickey Scudder scholarships:

2009 Menke Scholarship recipient:

Kyra Krakos (Washington University, St. Louis) “Specialization of Pollination Systems in *Oenothera*”

The goal of my research is to elucidate the pollination biology, the degree of specialization in pollination systems, and the importance of that specialization to the success of Missouri *Oenothera* species. This study focuses on carefully defining the pollination biology of 7 species of *Oenothera* (in sections *Gaura* and *Kneffia*) found in Missouri, specifically: *Oenothera linifolia*, *O. macrocarpa*, *O. fruticosa*, *O. filiformis* (syn: *Gaura longiflora*), *O. curtiflora* (syn: *Gaura parviflora*), *O. pilosella*, and *O. glaucifolia* (syn: *Gaura linifolia* or *Stenisiphon*). I will address the following questions: 1. Is visitation rate alone sufficient to accurately define a pollination system? 2. Are the pollination systems of *Oenothera* highly specialized? 3. Do species with specialized pollination systems have higher reproductive success? I predict that when both visitation rate and pollen load are taken into account, the pollination systems of these flowering plants have a higher degree of specialization than previously recognized. In addition, I predict that highly specialized species have a higher degree of reproductive success. This grant will support fieldwork in Spring/Summer 2009 to collect ecological data on plant-pollinator interactions for 7 species of *Oenothera* at 5 sites in Missouri.

I have conducted research using a broad range of pollination biology techniques in a variety of species and systems for over four years. I have been the lead researcher on studies in pollination biology at Point Reyes National Park and the National Tropical Botanical Garden on Kauai. Currently, through the Missouri Botanical Garden, I oversee continuing research in plant reproductive biology in *Oenothera*

species at sites in Missouri and Illinois. I have a B.S. in Botany and a M.S. in Integrative Biology from Brigham Young University. The title of my master's thesis was "Pollination and defense ecology of native Malvaceae species of Kauai." I am a currently Ph.D. candidate in my fourth year of the Ecology, Evolution, and Population Biology Program at Washington University, St. Louis. My dissertation work utilizes a comparative approach, first investigating reproductive traits in three areas: the pollination ecology, breeding system, and floral traits for all 42 species within a well-supported branch of *Oenothera* that includes sections *Kneiffia*, *Paradoxus*, *Megapterium*, *Peniophyllum*, and *Gaura*. I will then map those traits onto a molecular phylogeny to address the role of specialization of these reproductive traits in the evolution of *Oenothera*.

2009 Mickey Scudder Scholarship recipient:

Timothy Lescher (University of Missouri - St. Louis) "Alligator Snapping Turtle (*Macrochelys temminckii*) and Eastern Snapping Turtle (*Chelydra serpentina*) Population Trends, Distribution, and Habitat Utilization in Southeastern Missouri"

It is important to conserve large predators in aquatic ecosystems because of the impacts they have on overall species diversity. The alligator snapping turtle (*Macrochelys temminckii*) and eastern snapping turtle (*Chelydra serpentina*) often perform the roles of top predator, scavenger, and disperser in the rivers, lakes, and streams of southeastern Missouri. Because of habitat alteration, chemical runoff, commercial and recreational fishing pressure, and dams that block migrations, *Macrochelys* populations in Missouri and throughout the United States have declined sharply over the past half-century. The last *Macrochelys* surveys in Missouri were carried out in 1993-1994 and a telemetry study was performed in 1997. However, over the last decade, protected status of *Macrochelys* in Missouri, Illinois, and Arkansas may have led to increased numbers of alligator snapping turtles since those surveys were performed. Eastern snapping turtles are a popular game species in Missouri, and assessing habitat preference and

distribution of these turtles is also a priority. I propose a survey of the habitat preference and current distribution of alligator snapping turtles, eastern snapping turtles, and other turtle species trapped concurrently in Southeastern Missouri. The study will incorporate previous methods and materials used by S.D. Santhuff and P.A. Shipman, utilizing the same number of trap nights per each site, and revisiting the same sampling sites of the prior surveys. The results will be compared with those of the 1993 and 1994 studies conducted by Santhuff and Shipman, respectively. Assessment of the distribution and ideal habitat characteristics, and likely locations for future studies of *Macrochelys temminckii* and *Chelydra serpentina* will be completed using ArcGIS software (Arcview 9.2). The results of this study will aid wildlife managers in Missouri and other states in their abilities to manage and protect the rare aquatic turtle, *Macrochelys temminckii*, in the United States. Additionally, the results will give insight into the habitat utilization and overlap of *Macrochelys* and *Chelydra*. It will also provide ecological information on an important game species, *Chelydra serpentina*, as well as give important information on other turtle species.

The WGNSS scholarship committee found that the research project proposals written by these two students' best exemplify the requirements for wildlife habitat of the Menke scholarship and field biology of the Mickey Scudder scholarship. The scholarship committee felt that each of these research proposals offered a unique perspective on how to learn more about the natural world around us. Kyra Krakos, this year's Menke scholarship winner will receive an award of \$1500. Timothy Lescher, this year's Mickey Scudder scholarship winner will receive an award of \$1000. The money is to be used toward completion of their respective research projects.

We would like to thank the members of the scholarship committee, John Christensen, Emily Christensen, Anne McCormack, Ted MacRae, Mark Paradise, and Richard Thoma for the time they took to read all the applications and to decide who would be this year's scholarship winners.

**PROFILE OF A ST. LOUIS AREA
NATURAL SITE: JOHN ALLEN LOVE
COUNTY PARK
Marjorie Richardson**

One of my favorite natural areas is John Allen Love County Park, at Mason Lane and Manchester Road, approximately 2 miles west of I-270. Its 89 acres contain rather hilly trails, 2 picnic pavilions, a children's playground, and a large sports field plus bathrooms. In spite of development all around the park, it remains pretty good birding. Some special mornings during migration I have seen 40 or more species, mostly from walking the road or river's edge. (I don't "do" hilly paths anymore!) There are gravel bars in the river (Grand Glaize Creek) where I have seen solitary and spotty sandpipers within a few feet of each other, and orioles annually nest in riverside trees.

Our resident birds are mostly to be found plus a Cooper's Hawk which has nested there for a couple of years and a Red-tailed Hawk which is often seen circling. The bush honeysuckle is taking over areas where wildflowers once bloomed profusely, so the park needs some TLC from some volunteers! In spite of this invasion it's a fine place to spend a morning. I always bring my lunch because when migration is good—mornings become afternoons!

**SIGN UP FOR A WORKSHOP ON
"ECOLOGICAL MONITORING"**

This is the sixth and final workshop of the Volunteer Leadership Training Clinic, a six-part series running from Fall 2008 until Spring 2009. Malinda Slagle, Restoration Ecologist at Litzsinger Road Ecology Center, will be exploring the science of ecological monitoring throughout native wildlife habitats. Ecological monitoring studies facets of restoration science such as invasive species growth and response to management, or native plant growth characteristics in an area, and it is not limited to only terrestrial studies as aquatic habitats are also explored. As in previous clinic workshops, this workshop will be held at The Green Center, 8025 Blackberry Avenue, St. Louis, MO 63130.

Contact Jen Porcelli to participate by email: jporcelli@thegreencenter.org or by phone: 314-725-8314.

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

Starting this month, a paperless version of the newsletter will be 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. 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

Please submit announcements of nature-related events in the St. Louis area to the editor malinda.slagle@mobot.org. Also, original articles regarding nature are encouraged (not reprints from elsewhere unless you have permission to reprint them). Some suggestions might be trip accounts, information about local natural areas, book reviews, or interesting sightings. I also always appreciate group reports. Anything pertinent to WGNSS from anyone is welcome.

ANNUAL WGNSS SPRING BANQUET
Celebrating Our 89th year
Jane Deschu

Join us on Wednesday, May 6, for our Spring Banquet at Eden Seminary Commons , Lockwood and Bampart Ave , in Webster Groves . The social hour will begin at 5:30 pm. Mingle with members and meet Guy Sternberg, our banquet speaker. He is an author, plant explorer, horticulturist, and botanist. His program will be: The World of Oaks, a virtual tour of the genus and an illustrated armchair adventure of Guy's travels throughout North America, Central America, Europe, and Asia in quest of oaks.

Please make your reservation using the form printed below by April 27, and mail with a check made out the WGNSS for \$25 per person.

Refund policy: A full refund of your banquet ticket cost of \$25 will be given if requested before April 27. After April 27, no refunds can be made.

Reservations due by Monday, April 27

Make checks payable to WGNSS

Cost:\$25 per person

Your check will confirm your reservation.

Tear off the slip on this page & send with your name, address to:

Jane Deschu
1431 Tahoe Valley Ct.
Ballwin, MO 63021

Reservations due 4/27

Spring Banquet reservations for _____persons@ \$25 per person=_____

Name _____

Name _____

Phone _____ email _____ (optional)

Vegetarian meal request _____

GROUP ACTIVITY/WALK SCHEDULES

May 2009 Update

ORNITHOLOGY – SATURDAY Bird Walks

– David Becher (314-576-1146)

(If destination not given, it's "Where the Birds Are". Always bring lunch.)

Date Meeting Place

Time Leader

5/2 Tower Grove Park @ Gaddy Garden

8:00 am D. Becher

5/9 **BIG DAY**

8:00 am D. Becher

5/16 **Olive Gentile Book signing**

Castlewood State Park @ Headquarters

8:00 am D. Becher

5/23 Des Peres Park

8:00 am D. Becher

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

Continuing on Thursdays in January 2009, the group will meet at 8:30 am until May at the Des Peres Park parking lot off Ballas Road north of Manchester Road behind the Lutheran Church and School and Des Peres City Hall.

In May we will change to 8AM meeting time at the Gaddy Bird Garden in the northwest section of Tower Grove Park, St Louis City. We suggest parking on Magnolia Avenue. Those "westerners" who wish to carpool may meet at 8 AM at Des Peres Park. Beginning on 31 May throughout the summer, we will all resume meeting at Des Peres Park and proceed to where we hope there are birds to find.

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) or 314-368-0655 and receive an email every Sunday, sometimes earlier, about the next Monday's trip.

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

Sunday, May 17 at 7:00. Please join the entomology group for an evenings discussion on "How do we get kids excited about insects - Recruiting entomologists for the next generation." Kerry Stevison, youth educator at the St. Louis Science Center, Wayne Baldwin, Nipher Middle School (Kirkwood School District) science teacher and Richard Thoma will each make a brief presentation on how they are getting today's youth excited about insects. Find out about the dire implications if there is no one left to study insects. Come to find out what you can do to get involved! There will be time for everyone to discuss there own ideas about getting kids excited about the world of insects. For this meeting, we will be meeting at the Taylor Community Science Resource Center located on the corner of Kingshighway and Manchester. Directions are as follows: From the intersection of highway 270 and 44, take 44 east approximately 5 miles to the Kinshighway exit. Go north (a left turn) on Kingshighway approximately 1/4 mile. Make a left at Manchester and then make an immediate left into the Taylor Center (4900 Manchester) parking lot. Should you need assistance, you may call 314-541-4199.

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