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President's Corner

Rich Thoma

Many thanks to **George Yatskievych**, who gave a talk at the WGNSS September General Program Meeting about his recent trip to eastern Brazil. As many of you know, George is a research associate professor at the Missouri Botanical Garden, has written numerous scientific publications and is probably most familiar to everyone as the author of *Steyermark's Flora of Missouri*. George traveled to Brazil primarily to procure fern specimens for the Missouri Botanical Garden collection. In addition to collecting ferns, George spent a great deal of time photographing beautiful landscapes, wildflowers, birds and insects. Of the more than 1,000 photos taken, at the meeting George showed many of the best from the trip. George truly has a photographer's eye, and the pictures we saw were spectacular. We learned two interesting facts from George's trip. First is that not all of Brazil is rain forest. In fact, most of the places George visited were not rain forest habitat. Instead, the habitats were often rocky, drier places in semi-mountainous regions and have been poorly studied. Second, we learned that there are many species unique to these habitats and these too are poorly known. With no real Brazilian field guides, plant and animal identifications are very difficult. The best George could do for many of the photos was identification to genus, and there were a few flowers where family was the best that could be done. Many of those that attended the September meeting, including myself, went home with eastern Brazil as a new place added to our bucket list of places we plan to visit.

For the October General Program Meeting, **Maxine Stone**, past president of the Missouri Mycological Society, will present, "But Are They Edible? Missouri Wild Mushrooms". Here is a chance for you to learn which mushrooms are good to eat and which ones you should avoid. I understand that Maxine promises some interesting mushroom recipes for us to enjoy. She also will give hints on where and when to search for morels and other edible mushrooms. If you have a copy of Maxine's book, *Missouri's Wild Mushrooms*, there will be time for book signings during the meeting. A limited number of books will also be available for purchase ($14) at the meeting. WGNSS is also inviting members of the Native Plant Society to join our meeting for Maxine's talk. At the meeting, if you see someone new, please introduce yourself and make them feel welcome. Look to the meeting announcement section in this issue of Nature Notes for date and time.

I would also like to announce that we are looking for two people to fill new roles within WGNSS. The first is as the **WGNSS Naturalist Outreach Coordinator**. Teachers, scout groups, and community organizations are often looking for resources such as speakers, field trip guides, plant and animal identifications. There are many WGNSS members who have the expertise and are available to talk to school groups, are willing to lead field trips, and are experts at identifying a

– In This Issue –

President's Corner 1
October General Program Meeting 2
April Bird Report 2
May Bird Report 3
June Botany Report 5
July Botany Report 9
Notes from West Texas 13
The Marvelously Cryptic *Dicerca lurida* 13
Rejoicing the End of Summer 14
Book Review: *The Private Lives of Birds*, by Bridget Stutchbury 16
Publications by Members 16
St. Louis Zoo Lecture Series 16
The Nature Conservancy: Fall 2010 Conservation Speaker Series 16
Group Activity/Walk Schedules 17
Editor's Corner 17
April Bird Report (cont. from pg. 3) 19
July Botany Report (cont. from pg. 9) 20
Administrative Information 21

variety of plants and animals. The job of the Naturalist Outreach Coordinator will be to bring the two groups together. The second role is for a **WGNSS Community Service Coordinator**. In the past, WGNSS has cleaned up trash along the portion of I-44 in front of Tyson Research Center and is currently maintaining a butterfly garden at Busch Conservation Area. The Community Service Coordinator will look for other opportunities where WGNSS can offer its expertise to help the St. Louis community. In particular, we would like to organize a WGNSS Community Service event for the spring of 2011. If you are interested, or know of someone who you feel would fit in either role, contact me at your earliest convenience.

October General Program Meeting

Plan to join other WGNSS members on **Wednesday, October 6 at 7:30 p.m.** at Powder Valley Nature Center for our October General Program meeting, where Maxine Stone will present a talk entitled, "But Are They Edible? Missouri's Wild Mushrooms." Maxine is author of the book, *Missouri's Wild Mushrooms: A guide to hunting, identifying and cooking the state's most common mushrooms*, which MDC has summarized as follows:

"This lively and informative guide to the common fungi of the state is the first of its kind for Missourians and surrounding states. A must-have for outdoor lovers, mushroom enthusiasts and cooks, the book features color photographs and detailed descriptions of over 100 species. Written by Maxine Stone, past president of the Missouri Mycological Society, the book includes tips for finding, gathering, preparing and preserving wild mushrooms. An easy visual key aids identification, and clear guidelines help distinguish edible mushrooms from poisonous ones. As a bonus, there are also simple and elegant recipes that will awaken your foraging instincts!

"This user friendly book is available at www.mdcnatureshop.com, call 877-521-8692. It is also available at any MDC nature center, which includes Powder Valley Nature Center, Columbia Bottoms Nature Center and Busch Wildlife Nature Center. You may also purchase it at the Missouri Botanical Garden. It costs a mere $14."

April Bird Report

Compiled by Jim Ziebol

Good numbers of birds included 12 Little Blue Herons, several Great Egrets, Pied-billed Grebes, Blue-winged Teal, and many Purple Martins at Cahokia Mounds on 4/18 (J. Chain, Thursday Group). Jackie also found 2 Yellow-crowned Night Heron nests and a single adult in Wilson Park, Granite City, that day. One hundred Pectoral Sandpipers and over 40 Snipe were seen by several birders at Columbia Bottoms in late April (J.

Uffman). On 4/2, the Thursday Group was treated to a flock of over 200 Golden Plovers along Hwy. 94. Dave Haenni reported 50 to 60 warblers at the Jack Van Benthuysen Pond in TGP on 4/30, including Nashville, Golden-winged, Palm, Yellow-rumped, Tennessee, plus Red-eyed, White-eyed, and Yellow-throated Vireos.

A typical day along the Hwy. 79 corridor on 4/10 included Snow, Canada, and White-fronted Geese, Wood Duck, Gadwall, Mallard, Blue-winged Teal, Shoveler, Hooded Merganser, Coot, Pied-billed Grebe, Pelican, numerous Turkey Vultures, Kestrel, Snipe, Golden Plover, 1 Bald Eagle nest in Clarence Cannon NWR, and 6 sparrow species, including Vesper (J. Chain, Thursday Group).

Backyard Birds: On 4/18, Josh Uffman found the following species along a creek near his house in Eureka: 4 Louisiana Waterthrush, 4 N. Parula, 6 Yellow-throated Warblers, and a Warbling Vireo. A single Pine Siskin was seen on 4/13 at Torrey Berger's feeder.

Contributors: Connie Alwood, David Becher, Torrey Berger, Rose Ann Bodman, Linda Bolo, Tom Bormann, Mike Brady, Jackie Chain, Dick Coles, Chris Ferree, Dave Gibson, Mike Grant, Dave Haenni, Frank Holmes, Yvonne Homeyer, Marc Lund, Charlene & Jim Malone, Chris McClaren, Tom & Linda Mills, David Rogles, Bill Rowe, Bill Rudden, Al Smith, Josh Uffman, Rad Widmer, Jim Ziebol.

Early Arrival Dates: See table on page 19.

Abbreviations: BCA, Busch Conservation Area; CC, Clarence Cannon NWR; CL, Carlyle Lake; CSP, Castlewood State Park; CB, Columbia Bottoms; FP, Forest Park; HL, Horseshoe Lake; LP, Lafayette Park; 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.

May Bird Report

Compiled by Jim Ziebol

The passerine migration became very interesting in May. Everything seemed to come through in a rush, at least in TGP. I started birding in the early 1980s and there were definite stages of landbird migration, especially warblers. First came the males, then the females, and lastly in late May, the immatures with a few late adults. In 2010, May was exceptional with a mix of all ages of warblers migrating at the same time, more sightings of Connecticut Warblers than usual, and a male Black-throated Blue in TGP on 5/18 (m. ob.). Shorebird migration was brisk, with a flock of 40 Wilson's Phalaropes at Riverlands (D. Rogles, T. Bormann) and a number of Black-necked Stilts, Godwits, and even a Whimbrel (T. Bormann, C. Malone). The outstanding bird of the month and my bird of the year will be the Burrowing Owl, found by Lorrie Vitt in Monroe County, IL on 5/22 (also seen by C. Alwood and B. Rudden).

David Becher reported a remarkable number of Great Blue Herons and Great Egrets at Riverlands on 5/11, as well as 3 Caspian Terns, 2 Willets at Alton Barge, and 3 Willets at Lincoln Shields. A Neotropic Cormorant was first seen at HL on 5/5 (B. Rudden) and it was seen there from time to time for the rest of the summer. Mute Swans successfully raised a cygnet near the causeway of HL (FH). A Green-winged Teal was seen on the very late date of 5/19 at HL (FH). A few Hooded Mergansers nest in the St. Louis area. A female was seen near Cahokia Mounds on 5/28 (B. Rudden) and in mid-June it was seen with 5 young (JZ). Blue-winged Teal were located south of the causeway at HL in late May, both male and female (m. ob.). On 5/4, Paul & Barbara Johnson reported a Common Moorhen at River Valley Drive near Little Creve Coeur Lake. Eleven Willets and a Long-billed Dowitcher stopped to rest and feed at Watershed Nature Preserve in Edwardsville on 5/4 (Jack & Ginger McCall). Two Piping Plovers appeared at Riverlands in mid-May (R. Widmer). Josh Uffman observed 2 Marbled Godwits and an Avocet at Riverlands on 5/7. Firma and Dalbow Roads produced many good birds in early May, including 4 Black-necked Stilts, a Sanderling, 30 Wilson's Phalaropes, and 2 Baird's Sandpipers (CA) and a Hudsonian Godwit in mid-May. Also seen there were 3 White-rumped Sandpipers, 20 Long-billed Dowitchers, and a Dunlin (C. Malone, D. Rogles, T. Bormann). On 5/14, 22 Dowitcher sp. flew up from the wet grass near Cahokia Mounds Headquarters (B. Rudden). Tom Bormann and David Rogles found good

numbers of peeps, including several Western, at Confluence SP on 5/5. Gull sightings included a Lesser Black-backed at Riverlands on 5/2 (JU), several Franklin's at Riverlands on 5/1 (B. Rudden), and a Laughing Gull at Riverlands on 5/8 (L. Barber). On 5/8, 30 Forster's and 41 Black Terns were found at HL (FH, JZ). Common Terns arrived at HL in numbers by 5/14, and Bill Rudden observed that they fly more on their wingtips like Black Terns do, than on deeper wing beats like a Forster's.

Nighthawk sightings included 1 in Ferguson on 5/1 (JU), a few in U. City on 5/2 (MT), 1 in Soulard on 5/12 (S McC), and a few at Cahokia Mounds on 5/26 (B. Rudden). One to 3 Scissor-tailed Flycatchers were seen in the Firma/Dalbow area on 5/15 (T. Bormann, C. Malone). Western Kingbird sightings included 1 at Lambert Airport on 5/11 (MT), 2 in Granite City on 5/5 (FH), and the Soulard pair returned in late May (J. Chain). The first Olive-sided Flycatcher was reported from TGP on 5/13 (M. Richardson) and on 5/17, one was seen in FP (B. Rudden). Paul Bauer photographed a Hermit Thrush in TGP on the very late date of 5/15. Vireo migration was fairly normal, although Yellow-throated were sparse in TGP. Philadelphia Vireos first appeared on 5/1 in TGP (D. Becher, Saturday Group) and 2 were seen there on 5/8 (S. McCowan, YH). Blackburnian Warblers were first reported on 5/2 in TGP (P&BJ) and in FP (BB). Joan Hummel found a beautiful male Blackburnian on 5/3 at Shaw NR. Wilson's Warbler was first reported in TGP on 5/2 (P&BJ). A Mourning Warbler was found in TGP on 5/4 (S. McC), 2 were seen on the Chubb Trail on 5/6 (P. Lueders), and 2 were found in the Gaddy Bird Garden, TGP, on 5/8 (YH). Several Connecticut Warblers were seen in TGP, including a female on 5/11 (CA), which was described in detail on MoBirds by Chris McClaren. Bill Rudden found several Blackburnian, Yellow-throated Warblers, and a Least Flycatcher in TGP on 5/17. The first Redstart reported was seen in TGP on 5/3 (J. Chain, RAB). Many Cape May Warblers were seen in the evergreens near the Gaddy Bird Garden in TGP on 5/8 (m. ob.). Several excellent photographs of Cape Mays, Bay-breasted, Orange-crowned were taken in those evergreens in May (B. Rudden).

On 5/1, Sherry McCowan saw a Lincoln's Sparrow in TGP and another was seen there on 5/8 and 5/9 (YH, C. McClaren). It is becoming very difficult to find Lincoln's Sparrows in the St. Louis area any more. Bill Rudden saw a Lark Sparrow on 5/1 in Monroe County and on 5/20 along Hwy. 94. Bobolink reports included 5 near Firma/Dalbow on 5/15 (S. Gustafson, YH, T. Bormann), 15 at the duck club off Red School Road (C. Malone), and 50+ in Monroe County on 5/20 (T. Berger). Charlene Malone also reported 4 to 7 female Yellow-headed Blackbirds in St. Charles County on 5/2

A typical day for Torrey Berger on 5/12 at Robertsville SP included 2 Red-shouldered Hawks, 4 Turkeys, 2 Ruby-throated Hummingbirds, 3 Bell's Vireos, 3 Prairie Warblers, 2 Prothonotary, 8 Kentucky, 5 Chats, 2 Summer Tanagers, 2 Blue Grosbeaks, 1 Baltimore Oriole, and 3 Orchard Orioles, for a total of 70 species.

On 5/8, Chris and Andy McClaren, Rose McClaren, Connie Joseph, Sherry McCowan, and Yvonne Homeyer counted 69 species in TGP. On 5/21, Jackie Chain observed 21 Cedar Waxwings posing in the dead tops of two tall trees in the west end of the Gaddy Bird Garden in TGP.

Backyard Birds: Hummingbirds were seen in very good numbers this spring. Sherry McCowan reported a Pewee on 5/14, a Common Yellowthroat on 5/15, a Cormorant flyover on 5/24, and a late White-crowned Sparrow on 5/31. A Mississippi Kite nest was found near Pat Lueder's home in Webster Groves.

Contributors: Connie Alwood, Bob Bailey, Loy Barber, Paul Bauer, David Becher, Torrey Berger, Rose Ann Bodman, Tom Bormann, Mike Brady, Jackie Chain, Dick Coles, Chris Ferree, Dave Gibson, Mike Grant, Dave Haenni, Frank Holmes, Yvonne Homeyer, Paul & Barbara Johnson, Pat Lueders, Marc Lund, Charlene & Jim Malone, Chris McClaren, Sherry McCowan, Mick Richardson, David Rogles, Bill Rowe, Bill Rudden, Al Smith, Mike Thelen, Josh Uffman, Rad Widmer, Jim Ziebol.

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Lake; MBG, Missouri Botanical Garden; MTC, Marais Temps Clair; RMBS, Riverlands Migratory Bird Sanctuary; SNR, Shaw Nature Reserve; TGP, Tower Grove Park.

June Botany Report

Compiled by George Van Brunt

June 7, 2010 – Al Foster Trail, St. Louis County, MO (contributed by Burt Noll).

Attendees: Wayne and Nancy Clark, Paul Corley, George Van Brunt, Larriy Morrison, Jeannie Moe, Burton Noll, John Oliver, Robert Siemer, Father James Sullivan.

Glencoe is a village in the city of Wildwood located on the "Crescent" bend of the Meramec River in St. Louis County. Glencoe has been there a long time, first settled at the beginning of the nineteenth century. The terrain has been much modified, especially by mining of limestone and Meramec gravel. Gravel mining was conducted here from the 1850's to the 1970's, and part of our tour traversed the sandy wastes left behind. This section of the Al Foster Trail follows the Old Lawler Ford Road and the bed of the Pacific Railroad. Sometime during the 1900's the main tracks were moved across the river to avoid the sharp bends of the Crescent route, but the spur was left until the 1970's to serve the mining operations. A popular tourist attraction is the narrow-gauge Wabash, Frisco and Pacific Railroad (www.wfprr.com) that follows the old right of way along the trail. [Reference: Foster, Al; "Glencoe, from the Beginning"; 1983; accessed from the internet, via Wikipedia, http://www.rollanet.org/~conorw/cwome/glencoe-from_the_beginning.htm]

Many introduced species were found in the disturbed, sandy areas. We observed *Oenothera laciniata* (cut-leaved evening primrose), *Verbena simplex* and *V. stricta* (narrow-leaved and hoary vervains, side by side for comparison), *Triodanis perfoliata* (clasping Venus' looking glass), *Plantago aristata* (bracted plantain), *Papaver dubium* (long-headed poppy or blind eyes), and *Tragopogon dubius* (goat's beard)

***Chelinidea vittiger* feeding on *Opuntia humifusa*. Photos by Jeannie A Moe.**

Father Sullivan pointed out the cactus bug, *Chelinidea vittiger* on prickly pear cactus, *Opuntia humifusa*, which was still bloom. The cacti have long spines and short glochids (barbed hairs) to protect their moist insides. But these bugs penetrate the pads with their threadlike mouth parts and drink from the interior tissues just the same. They inject a salivary solution into the plant, so their food is actually a cactus soup. Pale circles show where feeding has been successful. [Reminds BN of some of his tomatoes that have been victims of hemiptera.]

We also observed the milkweed beetle, *Labidomera clivicollis* in the vicinity of *Asclepias syriaca* and *A. verticillata* (common and horsetail milkweeds)

Along the bluffs and shadier areas we found *Ruellia strepens* (wild petunia), *Iodanthus pinnatifidus* (purple rocket), *Silene antirrhina* (sleepy catchfly, with sticky patches below the nodes), *Phryma leptostachya* (lopseed), *Dasistoma macrophylla* (false foxglove), *Cornus drumondii* (gray dogwood), *Clematis pitcheri* and *C. ternifolia* (the native Pitcher's and introduced sweet autumn clematis), *Aristolochia tomentosa* (pipevine), *Ampelopsis cordata* (raccoon grape), *Vitis* (grape species), and *Hydrangea arborescens* (wild hydrangea).

This section of the Meramec Greenway, shared with many walkers, runners, and cyclists, has a remote and wild feeling in spite of the easy access and nearby human presence. Return visits will reveal more changes to this evolving landscape.

June 14, 2010 – Broemmelsiek County Park, St. Charles County, MO (contributed by John Oliver).

It was a day of "firsts" for the WGNSS botany group. One of the first really warm and humid mornings of the year greeted a dozen of us as we made our first visit to Broemmelsiek County Park in St. Charles County, and while the calendar may not have confirmed it was summer, the temperature was certainly a hint of summer heat to come. Present were Fr. James Sullivan, Burt Noll, George Van Brunt, Wayne and Nancy Clark, Jeannie Moe, Steve Turner, Larry Morrison, Jim and Yvonne Roe, Kathy Thiele, and John Oliver. The park is named for the family of Jack Broemmelsiek, who lived on the property for more than 30 years and dedicated their lives to promoting conservation activities. The region -- boasting fertile pasture land and an abundant oak-hickory forest -- has a long agricultural history in St. Charles County. Records date settlement of the area to the late 1700s, and several structures built on what is now Broemmelsiek Park can be dated to the mid-1800s. Future developments planned for the park include an agricultural heritage center which will display farming operations from the 1800s to the present day. For the moment however, the park's nearly 500 acres are primarily used by picnickers, hikers, and fishermen. Several small lakes are already stocked with bluegill, bass, and catfish. Betty's Lake, a larger, 13-acre lake named for Betty Broemmelsiek, a long-time proponent of conservation within the state of Missouri, will be stocked and opened to fishing in the next stage of development. On this day, our activities were confined to a portion of the just over four miles of multi-use trail now open.

This was also our first trip of the year during the "lull" between spring wildflowers and the flush of summer flowers yet to come. As we crossed the bridge and walked up onto a forested ridge, we were able to identify many plants by their leaves, but the number of blooming species was limited. Plants noted in bloom or bud included *Eupatorium purpureum* (green-stemmed Joe Pye weed), *Cryptotaenia canadensis* (Canadian honewort), *Blephilia ciliata* (Ohio horse mint), *Desmodium glutinosum* (large-flowered tick clover), *Erigeron annuus* (daisy fleabane), *Silene stellata* (starry campion), *Impatiens pallida* (pale touch-me-not, jewel weed), *Circaea canadensis* (enchanter's nightshade), *Persicaria longiseta* (bristly lady's thumb), *Rudbeckia hirta* (black-eyed Susan), *Campsis radicans* (trumpet creeper), *Dianthus armeria*, (Deptford pink), *Daucus carota* (Queen Anne's lace), *Potentilla recta* (rough-fruited cinquefoil), *Plantago rugelii* (Rugel's plantain), *Cicuta maculata* (water hemlock), *Diarrhena obovata* (American beak-grain), and *Torilis arvensis* (hedge parsley). The presence of yellow flowers on the jewel weed allowed a positive identification of *I. pallida* and fed the flames of our ongoing discussion of whether it is possible to distinguish between our two native species of *Impatiens* in non-flowering condition. Subtle differences in the leaves have been noted by botanist Justin Thomas and others. The question of whether these differences are too subtle for our group remains to be answered.

After returning to the parking area, group member and astronomer Wayne Clark provided us with yet another first: our first visit to St. Charles County's first dedicated astronomy site, located in another unit of the park nearby. With its remote setting and limited light pollution, Broemmelsiek Park offers a wonderful opportunity to view the night skies. The park's astronomy viewing site offers ten concrete viewing stations equipped with electrical service to accommodate the latest telescopes. The site is open on a first-come, first-served basis and serves as the primary location for the Department's monthly "Stars of St. Charles" viewing sessions. For a satellite view of the astronomy site, see http://goo.gl/maps/2b5H.

June 21, 2010 – Katy Trail Augusta, St. Charles County, MO (contributed by Steve Turner).

Time: 9:30 - 11:30 a.m.
Conditions: sunny, temperature upper 80s F, high humidity.
Participants: Wayne Clark, Susan Maag, Jeannie Moe, Larry Morrison, John Oliver, Linda Rezny, Fr. Sullivan, Steve Turner, George Van Brunt.

The group assembled at the Katy trailhead at Augusta, MO, on a very warm first day of summer. At the trailhead we were greeted by Debra Ray, who is responsible for this section of the trail, and who warned us of 250 approaching cyclists participating in the 2010 Katy Ride and celebrating the 20th anniversary of the trail. Her words were well spoken, and over the next two hours we

dodged many a cyclist (or perhaps it was the other way around). Several asked what we were looking for.

Before departing, we noted the abundant floating seeds of the Eastern cottonwood, *Populus deltoides*, lazily drifting like snowflakes through the air. From the very outset of our walk, a number of weedy and troublesome species were evident, such as *Alliaria petiolata* (garlic mustard), *Carduus nutans* (nodding thistle), *Sorghum halepense* (Johnson grass), *Convolvulus arvensis* (field bindweed), *Medicago lupulina* (black medic), and abundant *Torilis* sp. (probably *arvensis*; hedge parsley). Other common plants observed along the way included *Tradescantia ohiensis* (smooth spiderwort), *Sambucus canadensis* (elderberry), *Sonchus asper* (prickly sow thistle), *Erigeron annuus* (annual fleabane), *Lactuca serriola* (prickly lettuce), *Verbascum thapsus* (flannel plant), *Plantago lanceolata* (English plantain), *Phytolacca americana* (pokeweed), *Daucus carota* (Queen Anne's lace), *Cichorium intybus* (chicory), *Ambrosia trifida* (giant ragweed), and *Ambrosia artemisiifolia* (common ragweed). Many specimens of poison hemlock, *Conium maculatum*, were seen, and indeed this highly toxic plant has become very abundant along sections of the Katy trail in this region. Although only a few blossoms were seen, the magnificent seed heads of *Tragopogon dubius* (goat's beard or yellow salsify) dotted the trail margins here and there. The leaves of *Ipomoea lacunosa* (small white morning glory) were observed in several places, prompting speculation on the origin of the specific epithet, which means "perforated with holes." Indeed, many of the leaves that we observed had been perforated by the dining of insects. Perhaps the specimens which originally served to introduce the species to science were also bug eaten.

We found several examples of *Commelina erecta*, the native dayflower whose blooms appear very similar to the Asian import *C. communis*. The Steyermark key differentiates the two based upon the spathelike bract surrounding the flowers; in *C. erecta* the basal third of the bracts are fused. In practice this characteristic must be used with caution, since the act of examining the bracts can disturb the fusion. Another character is the shape of the bract, with *C. erecta* having an angled appearance, whereas *C. communis* presents a more smoothly curved appearance.

At least three members of the Urticaceae were seen along the way. The tall stinging nettle, *Urtica dioica*, was found in blossom here and there. *Pilea pumila*, commonly known as "clearweed," was seen in several places. The common name apparently derives from the watery and translucent appearance of the stems, a characteristic which has led to the plant's utilization in science experiments, for demonstration of fluid uptake in tracheophytes. Finally, a specimen of *Parietaria pensylvanica*, "Pennsylvania pellitory," was found which had very recently been in bloom, with the small central inflorescenses characteristic of many of the Urticaceae. All of these nettle relatives seem to prefer the moist, shaded conditions prevalent along this section of the Katy trail.

An edible observed along the way was the fruit of the red mulberry, *Morus rubra*, which lay thick upon the ground in some places. Other miscellaneous trees included the sandbar willow, *Salix exigua*, which is commonly afflicted with insect galls resembling pale bluish fruits, the Kentucky coffee tree (*Gymnocladus dioica*), sugarberry (*Celtis laevigata*), which has leaves highly asymmetric at the base, and hackberry (*C. occidentalis*).

A number of vining plants were examined. The single specimen of bur cucumber, *Sicyos angulatus*, which we found appeared to have no blossoms yet. Vines of the moonseed, *Menispermum canadense*, on the other hand, were past flowering and presented grapelike clusters. Each fruit, about the size of a large pea, contains a single seed, which is flattened and shaped like "a cookie with a bite taken out." Another fruiting vine was the raccoon grape, *Ampelopsis cordata*, which can be distinguished from other wild grapes by the shape of the fruit clusters, which are broader than long.

A somewhat unusual species which we observed at several points within the approximately one mile extent of our hike was *Consolida regalis*, commonly known as garden larkspur or royal knight's spur. The flowers of this plant are morphologically similar to *Delphinium* blooms, but the leaves are threadlike rather than straplike. The seed capsules of the specimens that we saw were pubescent, which differentiates this species from *C. ambigua*. The *Consolida* species are not widely distributed in Missouri and are probably escapees from cultivation.

June 28, 2010 – Faust County Park, St. Louis County, MO (contributed by George Van Brunt).

Twelve botanists met on a very warm, though not oppressively hot, partly cloudy, late June morning at the Governor Bates Trailhead Parking Lot in Faust County Park, St. Louis County. Accompanying Fr. Sullivan were John Oliver, Bob Siemer, Jack Harris, Pat Harris, Jeannie Moe, Wayne Clark, Nancy Clark, Steve Turner, Susan Maag, Louise Langbein, and George Van Brunt. First we explored the fields and forest edges in the trailhead area and then plunged into the deep, dark, bottomland trail, finally emerging into the sunlight again near a prairie plot.

In the open areas we explored first, we found *Chenopodium album* (lamb's quarters) and *Chenopodium ambrosioides* (Mexican tea). These species formerly were classified in the family Chenopodiaceae which now has been incorporated into the Amaranthaceae, the amaranth family. Flowering plants in bloom included *Teucrium canadense* (American germander), *Commelina communis* (common dayflower), *Torilis arvensis* (hedge parsley), *Verbena urticifolia* (white vervain), *Phleum pratense* (timothy), *Campsis radicans* (trumpet creeper), *Phyla lanceolata* (fog fruit), *Solanum carolinense* (horse nettle), and *Ratibida pinnata* (gray-headed coneflower). A blooming specimen of *Galinsoga quadriradiata* (fringed quickweed) was growing in a shaded area at the edge of the forest. This native to Central and South America has been found growing in scattered counties in Missouri. The genus *Galinsoga* was named for Mariano Martinez Galinsoga, died 1797, a Spanish botanist, physician and superintendent of the Madrid Botanical Gardens. We also found a huge *Arctium minus* (common burdock) in fruit.

After leaving the sunny area between the parking lot and the forested part of the trail, we descended a steep slope to rich Missouri River bottomland forest. On the way down we identified some very large *Sassafras albidum* (sassafras) trees. We had some discussion about the height of these trees and decided that they were about 60 feet tall. A little farther on we came upon a huge grapevine, probably *Vitis aestivalis* (summer grape). Wayne Clark measured the diameter of the vine and found it to be slightly more than 8 inches. We saw a number of specimens of *Phryma leptostachya* (lopseed), a plant that we do not commonly encounter. The lopseed family, Phrymaceae, is a small family consisting of about 190 species with a worldwide distribution, but most species are from western North America and Australia. The family used to include only the genus *Phryma*, but recent genetic work has indicated that some former members of the Scrophulariaceae, the snapdragon family, should be included as well. The genus *Mimulus* (monkey-flower), which we often see on our botany walks, is one which is now included in the Phrymaceae. We found another species that we do not see often, *Actaea pachypoda* (doll's eyes). These were fruiting and the greenish fruits were beginning to turn white and look like doll's eyes. We found a few fruiting specimens of *Aplectrum hyemale* (Adam-and-Eve orchid), *Osmorhiza longistylis* (anise-root), *Hydrophyllum canadense* (broad-leaved water-leaf), and *Circaea canadensis* ssp. *canadensis* (formerly *Circaea lutetiana*) (enchanter's nightshade). A large stand of *Impatiens pallida* (pale touch-me-not, pale jewelweed) attracted our attention; many of the plants were over 6 feet in height. We spotted a harvestman (aka daddy-long-legs) with about 20 tiny reddish-orange egg-shaped objects attached to its legs. This discovery prompted a flurry of photographic activity. At the time, we didn't know what the egg-shaped objects were, but later, John Oliver identified them as the larvae of a mite in the genus *Leptus*. The adults of *Leptus* ssp. are free-living predators, but the larvae are parasitic on other arthropods. The larvae generally

Harvestman with *Leptus* sp. mites attached to its legs. Photo by George Van Brunt.

attach themselves to the upper legs (femurs) of their harvestman host where there are smooth areas between the stout bristles. There they bite a hole in the harvestman's cuticle and suck out dissolved tissues and body fluids.

Finally re-emerging into the sunlight after climbing up out of the bottomland, we found some thistles in bloom. We identified the native *Cirsium discolor* (field thistle) and the introduced *Carduus nutans* (nodding thistle) and *Cirsium arvense* (Canada thistle). *Cirsium arvense* is rare in Missouri, being reported from only 7 counties. We are fortunate that this is so because this invasive species is an agricultural problem in places farther north. According to *Steyermark's* Flora *of Missouri Volume 2* page 335, *C. arvense* was introduced in eastern Canada in agricultural seed brought from Europe. In 1795 it was part of a Vermont weed ordinance and was declared a noxious weed in Missouri in 1909. It has never spread widely here as people once feared.

July Botany Report

Compiled by George Van Brunt

July 5, 2010 – Creve Coeur County Park, St. Louis County, MO (contributed by Jack Harris).

Time: 9:00 a.m.–noon.
Conditions: 75–85°F, partly cloudy.

The WGNSS-Botany Group was visiting a specific area of Creve Coeur Park based upon the request for plant survey assistance by the St Louis Audubon Society. The arrangements were made by Mitch Leachman (StL Audubon) & George Van Brunt (WGNSS). The Audubon Society, in cooperation with the St. Louis County Parks, is engaged in an "UPLAND FOREST RESTORATION PROJECT". The objective is to clear and check the spread of the invasive bush honeysuckle (*Lonicera maackii*), and to restore native plant species in the understory of the upland forest area. For more information on St Louis Audubon's program, please visit: http://www.stlouisaudubon.org/news/together_green_grant.php

The initial phase began, in the parlance of the project, along the "Honeysuckle Conversion Corridor" and the "Open Woodland" areas. These areas extend along the west side and north end of that portion of the Park that is designated as "Corporate Picnic" areas. Additional visits to these areas by the Botany Group are expected during different seasons in order to make the plant list more complete.

The following Field Trippers participated in the survey:

Rev. Jim Sullivan, George Van Brunt, Jeannie Moe, Wayne Clark, Nancy Clark, Jim Wiant, Rick Gray, Louise Langbein, Charlotte Lehmann, Jack Harris, Pat Harris, John Oliver, and Jane Deschu. They were joined by St Louis Audubon members Mitch Leachman (Executive Director), and Karen Meyer (Membership).

The plant list below [ed. note, see page 20] was derived from the day's visit and a copy delivered to St. Louis Audubon. It is annotated as "Under Construction" to denote that the list is expected be augmented over the next few seasons and future survey trips.

July 12, 2010 – Klondike Park, St. Charles County, MO (contributed by Steve Turner).

Time: 9:00–11:30 a.m.
Conditions: Sunny, temperature mid–upper 80s F.
Participants: Kyle Baughman, Wayne Clark, Nancy Clark, Jeanne Clauson, Jack Harris, Pat Harris, Nels Holmberg, Louise Langbein, Larry Morrison, Burt Noll, John Oliver, Bridget Schaefer, John Schaefer, Fr. Sullivan, Kathy Thiele, Steve Turner, George Van Brunt, Jim Wiant; Mike Roberts (Reporter), Jeff Wilson (Cameraman)

The group assembled in the Klondike boat launch parking area, and over the next 2-1/2 hours walked westward approximately 0.8 miles along the "Lewis & Clark" trail (not to be confused with the loop trail of the same name a few miles to the northeast), stopping just short of the Klondike Park entrance. Much of the area between the trail and nearby Highway 94 is being restored as prairie, so many of the species observed had probably been seeded at some time in the recent past.

Immediately upon embarking upon the trail from the nearby Katy Trail, we were greeted by a dense population of prairie species, which at this end of

the trail were dominated by *Ratibida pinnata* (gray-headed coneflower) and *Monarda fistulosa* (wild bergamot). Also present was *Desmanthus illinoensis* (Illinois bundleflower), which bore both flowers and its roughly spherical clusters of intertwined seed pods. Many of the *Desmanthus* plants were serving as hosts to small, smooth, tan colored beetles of the genus *Anomoea*. Another insect seen in large numbers was the red and black *Lygaeus tercicus*, which was specifically colonizing specimens of *Heliopsis helianthoides*. This "Heliopsis bug" lacks mandibles, instead obtaining nourishment through sucking of plant juices. The affected plants show brown, necrotic regions within the inflorescence disk, where individual disk flowers have been killed by the insects' feeding. The *Heliopsis* blooms also had fertile ray florets, which contrast with the sterile ray florets of the *Helianthus* genus.

Two additional insect species worthy of note were encountered along the way. First was a clymene moth (*Haploa clymene*), a cream colored triangular moth with a striking black marking resembling a dagger with the point oriented at the head. Second was a linear cluster of small mud chambers belonging to the potter wasp, family Eumenidae. Typically each pot contains a single egg, along with a paralyzed spider, caterpillar, or beetle larva to serve as a food source for the emerging hatchling.

Towering above the floral plane defined by the above plants were sporadic specimens of the compass plant, *Silphium laciniatum*, and at least one example of the cup plant, *Silphium perfoliatum*, though the inflorescence buds of the latter were not yet open. Other tall species observed in this area were the green-stemmed Joe-Pye weed, *Eupatorium purpureum*, Eastern gama grass, *Tripsacum dactyloides*, with its unique segmented rows of seeds, *Verbena urticifolia*, with its tiny flowers like points of white, and rattlesnake master (*Eryngium yuccifolium*). Continuing downward in size was the ubiquitous Queen Anne's lace (*Daucus carota*), along with gayfeather (*Liatris pycnostachya*), purple coneflower (*Echinacea purpurea*), false dandelion (*Pyrrhopappus carolinianus*), mountain mint (*Pycnanthemum tenuifolium*), butterfly weed (*Asclepias tuberosa*), partridge pea (*Chamaecrista fasciculata*), and carpetweed (*Mollugo verticillata*). An alternate common name of this last plant is Indian chickweed, furnishing testament to its resemblance to some *Cerastium* species. True to its typical

Clymene moth (*Haploa clymene*). Photo by Steve Turner.

Potter wasp chambers. Photo by Steve Turner.

growth habit, *Helianthus mollis* (ashy sunflower) was found in a dense colony, though none of these plants was yet in bloom. Two wild lettuces seen were *Lactuca serriola*, its flat leaves carrying numerous spines along the underside midribs, and *Lactuca saligna*, which has long, narrow leaves in accordance with its specific epithet, which means "willow-like". Both of these lettuces have white sap, a character which serves to distinguish them from the tan-sapped *L. canadensis*. The *L. saligna* was vegetative only, without visible flower buds.

As we approached the end of the trail nearer the park entrance, the herbaceous prairie mixture gave way to more tended and obviously planted shrubberies. These included Ozark witch hazel (*Hamamelis vernalis*) and ninebark (*Physocarpus opulifolius*), both of which were in fruit.

The walk provided a dramatic demonstration of the influence of habitat on floral selection. The plants described above were found in the prairielike setting extant on the north side of the trail; the south side, in contrast, was shaded and

moist, and for the most part contained a completely different set of plants, despite being only a few feet distant from the prairie. Plants found in this moist woodland border region included the native dayflower, *Commelina erecta*, white snakeroot (*Ageratina altissima*), late figwort (*Scrophularia marilandica*), white avens (*Geum canadense*), tall bellflower (*Campanula americana*), St. John's wort (*Hypericum punctatum*), and scarlet pimpernel (*Anagallis arvensis*). Large stands of jewelweed, both the spotted (*Impatiens capensis*) and the pale (*Impatiens pallida*) species were present, prompting discussion of how these may be differentiated by inspection of the leaf margins. The question remains unresolved. Two mints bearing mutual resemblance were observed, germander (*Teucrium canadense*) and thinleaf betony (*Stachys tenuifolia*). These may be differentiated by ascertaining whether each flower bears an upper lip. This feature is present in *Stachys* and absent in *Teucrium*, giving rise to the silly and therefore effective mnemonic, "*Teucrium* is topless, *Stachys* is stacked."

Larger shrubs and trees noted along the border region included *Prunus serotina* (black cherry), which provided sparse but ripe and delicious fruits, *Gymnocladus dioica* (Kentucky coffee tree), and pecan (*Carya illinoinensis*). An unusually deep green shrub was tentatively identified as spicebush (*Lindera benzoin*) on the basis of fragrance as well as leaf morphology. Twining amongst some of these larger plants were grapevines, both *Ampelopsis cordata* (raccoon grape) and *Vitis riparia* (riverbank grape). The latter is recognizable by its leaf shape, which includes roughly toothed margins and two distinct, sharply pointed lateral lobes which point away from the base of the leaf. Another vine observed in several places was groundnut, *Apios americana*.

As a final, unusual note, we were accompanied through much of our trip by two members of the television media: reporter Mike Roberts and cameraman Jeff Wilson, both from the St. Louis NBC affiliate, KSDK Channel 5. In addition to filming some parts of the walk, they also interviewed Father Sullivan and some other members of the group. Following the usual editing process, the segment aired as part of the 10:00 news on Friday, July 30 2010.

July 19, 2010 – Creve Coeur Lake County Park, St. Louis County, MO (contributed by Fr. Jim Sullivan).

Hot and humid to go! The only storm on the regional radar was aimed at us. But when it arrived, it rained on St. Charles and on south St. Louis County, but we had dry clouds over us. We were glad when the booming and banging stopped, though.

Wayne and Nancy Clark, Jack and Pat Harris, Louise Langbein, Jeannie Moe, Larry Morrison, Burt Noll, John Oliver, Bridget Schaefer and baby John, George Van Brunt, Jim Wiant, and I were dripping with perspiration as we observed the bottomland species.

The mystery grass of two weeks ago was seen again, and GeorgeYatskievych has seen it here too, and he recognized it as the introduced *Microstegium vimineum*, eulalia, or Japanese stilt grass. The leaf blades have a polished central line. *Vimineus* means "like osier" from the patterning of the leaves.

Other introduced species were doing well, including the beautiful blue chicory flowers *Cichorium intybus*, the prickly leaf lettuce *Lactuca serriola*, and Johnson grass *Sorghum halepense*.

Plants near the lake included the large white flowers of *Hibiscus laevis*, the pink mint *Stachys tenuifolia*, and fruiting false indigo *Amorpha fruticosa*.

Planthopper insects were seen, *Anormenis septentrionalis* looking like a fleck of white paint, and two young *Acanalonia conicas*, with sprays of wax coming out of their backsides. These insects occur on various plants that are near, but not in the water.

July 26, 2010 – Weldon Spring Environmental Site, St. Charles County, MO (contributed by George Van Brunt).

At Jeannie Moe's invitation, the WGNSS botanists met at the Weldon Spring Environmental Site in St. Charles County. Jeannie is employed maintaining the gardens there and she informed us that *Epilobium coloratum* (cinnamon willow herb) was in bloom. We found this species there when Michelle Lee, our occasional botany visitor from California, identified the plant on our field trip of October 19, 2009. Subsequently, we found that this species is a county record for St. Charles

WGNSS Botany Group in the Howell Prairie Garden. Kneeling (L–R): Pat Harris, Jeannie Moe, Darlene Haun, Kathy Thiele, John Schafer (baby). Standing (L–R): Rev. Jim Sullivan, George Van Brunt, Nancy Clark, Wayne Clark, John Oliver, Ed Haun, Bridget Schafer, Ruth TenBrink, Steve Turner, Gladys Kullman, Ed Kullman. Photo by Jack Harris.

County, and we wanted to take voucher specimens, GPS readings, and photographs for the Missouri Botanical Garden's *Flora of Missouri* project. Seventeen of us (see photograph caption) met at 9:00am on a partly cloudy morning that was warm but not as oppressive as last week. We spent about an hour exploring the Howell Prairie Garden and then walked the path to the east end of the disposal cell (the huge mound).

In the Howell Garden, we found a large variety of native Missouri plants. There is a small seep at the northwest corner of the garden in the *Spartina cordata* (cord grass) area, and we found *Epilobium coloratum* growing in this area. *E. coloratum* is in the evening primrose family (Onagraceae) along with *Oenothera macrocarpa* (Missouri evening primrose). Missouri evening primrose has huge flowers unlike *E. coloratum* which has very tiny flowers. Most of the flowers we saw were still in the bud stage, but some were open. The flowers may be small, but each bushy plant bears many flowers. The petals of *Epilobium* species are borne at the end of a long tube which looks like a flower stalk (peduncle) but isn't; it is a calyx tube containing the ovary which, after fertilization, will develop into the fruit, an elongated loculicidal capsule. The fruit looks somewhat like the silique of the mustard family, but in mustards, the fruit grows above the level of the petals whereas, in *Epilobium*, the fruit is below the level of the petals. The common name, cinnamon willow-herb comes from the reddish brown tufts of hair on the seeds. The hair tufts of seeds of other *Epilobium* species are white, gray. or

***Epilobium coloratum* in bloom. Photo by John Hilty.**

***Epilobium coloratum* flowers with long calyx tubes. Photo by George Van Brunt.**

light brown. The seeds of *Epilobium* species are very tiny and the hair tufts serve the function of a parachute allowing the seeds to float in the air.

In addition to cordgrass and cinnamon willow-herb, we identified many blooming plants from the family Asteraceae. These included *Liatris pycnostachya* (prairie blazing star), *Eupatorium serotinum* (late boneset), *Heliopsis helianthoides* (sunflower heliopsis), *Silphium laciniatum* (compass plant), *Euthamia graminifolia* (common flat-topped goldenrod), *Rudbeckia subtomentosa* (fragrant coneflower), *Silphium perfoliatum* (cup-plant), *Echinacea purpurea* (purple coneflower), *Silphium integrifolium* var. *integrifolium* (rosinweed), and *Silphium integrifolium* var. *laeve* (rosinweed). The varieties of the latter two species are distinguished by their stems; variety *integrifolium* has rough stems,

while *laeve* has smooth stems. Other members of Asteraceae not yet blooming were *Solidago patula* (rough-leaved goldenrod), *Helianthus salicifolius* (willowleaf sunflower), and *Solidago rigida* (stiff goldenrod). We spent considerable time comparing and contrasting these sometimes difficult-to-distinguish plants. This garden is a good place to study them since so many species are growing side-by side here. We noted many other species from other plant families as well.

When we had finished studying the plants in the Howell Prairie Garden, we walked a trail to the east end of the disposal cell. This is where we originally found *Epilobium coloratum* last fall. The ground here is like a fen with water continuously flowing in a thin layer over the ground only here the water is not seeping out of the ground but is draining from the disposal cell. We found many water loving plants such as *Typha angustifolia* (narrow-leaved cat-tail), *Physostegia virginiana* (obedient plant), *Verbena hastata* (blue vervain), *Ludwigia alternifolia* (rattlebox), and *Epilobium coloratum*. There seemed to be less *E. coloratum* plants than we remembered from last fall and we speculated that they may be suffering from crowding, especially by the cat-tails and obedient plants.

Notes from West Texas

Fr. Jim Sullivan

[Ed. note: in August of this year, Fr. Sullivan made a trip to west Texas to botanize in the Davis Mountains Area. Following are two notes he submitted from this trip].

Philadelphus likes rocks

Like its cousins the hydrangeas and the saxifrages, *Philadelphus* likes rocks, mostly in wet situations. On a rocky slope above Limpia Creek, I saw a bush with four white petals, and I thought of *Philadelphus*. I wasn't far wrong. They call it *Fendlera*, but it is in the *Philadelphus* clan. Its species name is *rupicola*. It likes rocks.

The rocks were a disaster to me, but the Cliff Fendlerbush loves them and lives on them.

A cactus wren was scolding me

"This is my turf! What are you doing here?"

He didn't look much like a wren, since he was so large, and had a long tail that was NOT turned upward. But he sure acted wren-like. He kept scolding me, and by the time I got the message, I thoroughly agreed with him.

You always need to know where you are putting your feet when you are hiking. But this slope was made of rounded rocks, and you couldn't see where your foot was going because of all the thorny scrub. And when you lose your balance, you get an instant study of cactus spines, clawing mimosas, and slashing agave rosettes.

The cactus wren was scolding me! And he was right!

The Marvelously Cryptic *Dicerca lurida*

Ted C. MacRae[1]

***Dicerca lurida* on trunk of wind-thrown mockernut hickory (*Carya alba*). Photo by Ted C. MacRae.**

This is *Dicerca lurida* (family Buprestidae), another of several woodboring beetle species that I found on the trunk of a large, wind-thrown mockernut hikcory (*Carya alba*) tree during my early April hike of the lower Wappapello Section of the Ozark Trail. Actually, I had already spent some amount of time at the tree photographing a checkered beetle (*Enoclerus ichneumoneus*) and a longhorned beetle (*Stenosphenus notatus*) giving a ride to

[1] Reprinted from an article posted May 21, 2010 on the author's website: http://beetlesinthebush.wordpress.com.

a phoretic pseudoscorpion before I even noticed not one, but several of these cryptically colored jewel beetles on the trunk of the tree.

Like other species in the genus, the brilliant metallic gaudiness of *Dicerca lurida* as a pinned insect specimen in a cabinet belies its near invisibility when sitting on the bark of its host trees. Several different trees have been reported as hosts (Nelson 1975), but hickories of the genus *Carya* seem to be the most preferred. The beetles rapidly colonize wind-thrown or cut trees and branches while the wood is still hard and strong, and I have collected it from a number of hickories and reared it from dead pignut hickory (*Cary glabra*) and shellbark hickory (*Carya laciniosa*), as well as sandbar willow (*Salix exigua*). Most jewel beetles are active as adults only during a limited time during the season – typically late spring and early summer in eastern North America, but species of *Dicerca* occur as adults throughout the year – even during winter hibernating under loose bark. This individual probably represents one of those hibernating adults that resumed activity in the first warm days of spring, searching for freshly killed host trees on which to mate and lay their eggs. Widespread across eastern North America, it is perhaps the commonest species of the genus and one of the commonest jewel beetles in North America. Yet, despite its abundance, year-round occurrence, relatively large size, and attractive coloration, its cryptic habits keep it seldom seen by those who don't look for it.

REFERENCE:

Nelson, G. H. 1975. A revision of the genus *Dicerca* in North America (Coleoptera: Buprestidae). *Entomologische Arbeiten aus dem Museum G. Frey* 26:87–180.

Rejoicing the End of Summer

Ted C. MacRae[1]

Last week I awoke to refreshingly cool temperatures for the first time in a long time – a brutal heat wave that had gripped the Midwest for some time had finally (if only briefly) passed. Missouri typically experiences substantial heat and humidity during the height of summer, a result of warm, moisture-laden air sweeping up from the Gulf of Mexico and over our mid-continental position. The first cool snap in mid-August, however, usually marks the beginning of the end of protracted heat. High temps may return (and usually do), but they are intermittent and the writing is on the wall – summer's end is near, and fall is on its way! For most of my life, the coming of fall has always been something to which I looked forward eagerly – it really is my favorite time of year. I don't just love fall, I adooore it!!! As a result, I sometimes forget that not everyone shares my feelings, so when I mentioned to a colleague last week how excited I was that fall was on the way, I was a little surprised by her less-than-pleased reaction. Kids I can understand – fall means a return to school and the end of fun and sun and no responsibilities. However, for most adults, fall does not entail as dramatic a paradigm shift – we get up and go to work everyday regardless of the season. Indeed, to my colleague, fall was not dreaded so much for what it is but what it portends – winter! I convinced myself that if she was as interested in natural history as I, surely she would appreciate fall as a time of transition in the natural world. This logic proved faulty, however, when just a few days later one of my favorite entomologist/natural historian bloggers voiced a similar lamentation.

Russet browns of big bluestem (*Andropogon gerardii*) and Indian grass (*Sorgastrum nutans*) blend with still-green foliage in early autumn at White River Balds Natural Area in southwestern Missouri. Photo by Ted C. MacRae.

That the charms of fall are not immediately apparent to everyone is beyond me. Who in middle America doesn't rejoice the end of long,

[1] Reprinted from an article posted August 28, 2010 on the author's website: http://beetlesinthebush.wordpress.com.

Xeric calcareous prairie ("cedar glade") at White River Balds Natural Area in southwestern Missouri - habitat for *Cicindela obsoleta vulturina*. Photo by Ted C. MacRae

Gypsum Hills in Barber County, south-central Kansas – habitat for *Cicindela pulchra*. Photo by Rich Thoma.

sweltering days as they cede to the cool days of fall? Who dreads the crisp, clean, autumn air and its pungent, earthy aromas? Who doesn't marvel as they watch the landscape morph from summer's monotonous shades of green – its forests becoming a riot of red, orange, and yellow, its grasslands a shifting mosaic of tawny, amber, and gold, and in all places shadows cast long and sharp by a cool yellow sun riding low in a deep blue sky? For the natural historian, fall offers even more than just these sensory gifts – it's not the end of the season, but rather part of a repeating continuum that includes birth, growth, senescence and quiescence. Plants that have not yet flowered begin to do so in earnest, while those that have shift energy reserves into developing seeds. The spring wildflowers may be long gone, but only now do the delicate blooms of Great Plains Ladies'-tresses (*Spiranthes magnicamporum*) rise up on their tiny spires. Grasses also, anonymous during the summer, now reach their zenith – some with seed heads as exquisite as any summer flower. Insects and other animals step up activity, hastily harvesting fall's bounty to provision nests or fatten their stores in preparation for the long, winter months ahead.

For me, it is tiger beetles that are fall's main attraction. Yes, tiger beetles are out during spring and summer as well, but there is something special about the fall tiger beetle fauna. Glittering green, wine red, and vivid white, a number of tiger beetles make a brief appearance in the fall after having spent the summer as larvae, hidden in the ground while feeding on hapless insects that chanced too close to their burrows, until late summer rains triggered pupation and transformation to adulthood. As the rest of nature prepares for sleep, these gorgeous beetles take their first, tentative steps into the autumn world for a brief session of feeding and play before winter chases them back underground for the winter. Every fall for the past several years now, I have looked forward to the annual fall tiger beetle trip to see some of the different species and the unique landscapes which harbor them. From the "cedar glades" of Missouri's Ozark Highlands and Gypsum Hills of south-central Kansas, to the Sandhills of central Nebraska and Black Hills of South Dakota, I've acquired an even greater passion for a season that I already loved. I'll never forget the first time I saw *Cicindela pulchra* (beautiful tiger beetle) flashing iridescently across the barren red clay. I still remember the excitement of seeing my first *C. obsoleta vulturina* (prairie tiger beetle) launching itself powerfully from amongst the clumps of big bluestem. I recall my amazement at my first encounter with *C. limbata* (sandy tiger beetle) as it danced across deep sand blows, undaunted by scouring 30 mph winds. No doubt I have many equally vivid memories awaiting me in the future, as I intend to keep the annual fall tiger beetle trip a long-standing tradition. For this year, I'm hoping that *C. pulchra* and a few other species will reward a late-September drive to the Nebraska and South Dakota Badlands. Whether they do is almost irrelevant – I love fall, and the chance to see new localities during my favorite time of year will be reward enough.

Book Review: *The Private Lives of Birds,* by Bridget Stutchbury

Pat Brock Diener

The following should read this book: the backyard bird feeder, the beginner, and the expert. Whether it is the Scarlet Tanager, the Acadiian Flycatcher or the Purple Martin, Bridget has arisen before dawn to see 'who is sleeping with whom.' Researchers have found that for songbirds in temperate North America, the nestlings show an 86% record of infidelity. This shocking new shatters our concept of the love birds. Not all birds do, so the data she has collected and reviews are of interest. This aspect of behavior has come from new technology. Blood samples are collected from each nestling and parents and their DNA tested. The researchers are rather tricky using recordings and decoys and this makes for interesting reading. She teaches at York University in Toronto, lives in Pennsylvania in the summer and travels to the tropics to see what differences there are between migrating species and those who don't.

I highly recommend this book to birders, but to them and everyone, for an analysis of the future of birds and our planet, please read the last chapter.

Publications by Members

Guy Kirwan, Arturo Kirkconnell and Mike Flieg. 2010. *A Birdwatcher's Guide to Cuba, Jamaica, Hispaniola, Puerto Rico and the Caymans.* Prion Publishing, Norfolk UK.

St. Louis Zoo Lecture Series

Jim Jordan[1]

The St. Louis Zoo presents the lecture series: *Conservation Conversations*, co-sponsored by the Academy of Science –St. Louis. Programs are held in the Living World, with free parking available in the North parking lot. These lectures are **FREE** and open to the general public, no reservations required. Visit www.stlzoo.org or call (314) 646-4544 for more information.

Conserving the Cool: Humboldt Penguins
Michael Macek, Curator of Birds
Tuesday, October 26, 7:30 p.m.

Creepy Crawly Conservation
Jennifer Hopwood, Midwest Pollinator Outreach Coordinator, Xerces Society
Tuesday, November 23, 7:30 p.m.

The Nature Conservancy: Fall 2010 Conservation Speaker Series

Anna Babcock[2]

The Nature Conservancy is hosting a speaker series at **Schlafly Bottleworks** in Maplewood starting in September. All lectures are free and open to the public, with topics ranging from the oil spill in the Gulf to ethnobiology in China.

Native Bees & Natural Communities
Mike Arduser, Natural History Biologist, Missouri Department of Conservation
Tuesday, October 19, 7:00 p.m.

Khawa Karpo: Conservation in a Tibetan Landscape
Jan Salick, PhD, Curator of Ethnobotany, Missouri Botanical Garden and Bob Moseley, Director of Conservation Science, The Nature Conservancy in Illinois
Tuesday, November 16, 7:00 p.m.

[1] Curator of Education, Saint Louis Zoo.

[2] Philanthropy Assistant, The Nature Conservancy in Missouri.

Group Activity/Walk Schedules

ORNITHOLOGY GROUP
David Becher, Chair – (314) 576-1146

Saturday Bird Walks
David Becher, Leader – (314) 576-1146

All trips begin at 8:00 a.m. and normally go through early afternoon, so bring lunch if you wish to stay out. Everyone is welcome. The leader reserves the right to change the schedule if necessary. Walks are at Des Peres Park through December except on the following dates:

Sep 25	Teal Pond Riverlands
Oct 9	Teal Pond Riverlands
Oct 16	HQ Columbia Bottom

Thursday Bird Walks
Jackie Chain, Leader – (314) 644-5998

Jackie Chain will be leading Thursday birding trips from Des Peres Park parking lot (east side of Ballas Rd. just north of Manchester Rd.). Meeting time is 8:30 a.m., and return is usually by 3:30 p.m. (but you may leave at your convenience). Bring lunch, beverage, binoculars and if you have one a scope/tripod. If you have questions, contact Jackie at (314) 644-5998 or chainjac@sbcglobal.net.

BOTANY GROUP
George Van Brunt, Chair – (314) 993-2725

Botany Walks
Fr. James Sullivan, Leader
(now in his 44th year as Botany Walk Leader!)

Botany walks are every Monday. The WGNSS 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 WGNSS Botany Group emails from Jack Harris by contacting him at jahar@mac.com or (314) 368-0655 and receive an email no later than Sunday about the next Monday's trip.

ENTOMOLOGY GROUP
Phil Koenig, Co-Chair – (314) 281-1313
Jane Walker, Co-Chair – (314) 965-6522

Upcoming Meetings

Sunday, September 26, 7:00 p.m. The WGNSS Entomology Group will be holding its annual show-and-tell meeting at the home of Phil & Sara Koenig, 823 Lauralee Drive, O'Fallon, MO. If you need directions, please send an e-mail to Phil at pkoenig@mail.win.org or call (636) 281-1313.

Sunday, October 24, 7:00 p.m. Anne McCormack will be speaking about our WGNSS Flickr site, a system for sharing natural history pictures at the City Museum. Parking is available in the North 16th and Delmar lot. For directions to the City Museum, please consult the museum website (http://www.citymuseum.org/home.asp), or call (314) 231-2489.

For general information about WGNSS, contact Membership Chairman Paul Brockland at pbrockland@sbcglobal.net or (314) 961-4661.

Editor's Corner

Ted C. MacRae

LETTER TO THE EDITOR

Dear Editors:

Enjoyed the BIGGEST Botany report I can remember. Have wonderful memories of Bear Shooter Gulch the second or third week every April. Went with friends and my young children at least 20 years before I joined the Thursday (Father Sullivan's day off then) Botany Group – with Art Christ and Nell Menke and Betty Nellums. A big thanks to the wonderful writers for those special reports of the now Monday Botany Walks.

Adrienne Biesterfeldt

NATURE NOTES BY EMAIL
Nature Notes is available not only by regular post, but also by email. Not only does this save paper and reduce mailing costs, it allows viewing of the newsletter and the included photos **in full color**.

Embedded hyperlinks also allow instant navigation to email addresses and websites. Of course, you can always print your electronic copy of *Nature Notes* if you wish (if you do, please be sure to use both sides of the paper ☺). The electronic newsletter is sent as a PDF, which can be opened using Adobe Reader (free download available at http://get.adobe.com/reader/). Send your name and email address to the Assistant Treasurer at whittex@aol.com to receive *Nature Notes* by email.

CALL FOR SUBMISSIONS

We welcome all announcements of WGNSS or other nature related events in the St. Louis area, notices of published articles – especially those authored by members, and original nature oriented articles. Suggested topics include accounts of field trips you have taken, information about local natural areas, interesting nature sightings, or reviews of nature related books. Reprinting of articles from other sources requires permission from the copyright holder. Previous *Nature Notes* issues are a good source of ideas – copies of recent issues can be provided upon request.

Please direct all submissions by email to the Editor at ted.c.macrae@monsanto.com. Limit text formatting to bold for emphasis and italics for scientific names. Additional formatting (e.g., use of tabs and extra spaces, multiple hard returns, underlining, etc.) should be avoided, since it must be removed by the Editor during final formatting. Photographs are encouraged and will be published on a space-available basis. Contributions are welcome from all but especially encouraged from members – remember; this is your newsletter!

April Bird Report (cont. from pg. 3)

Early Arrival Dates:

DATE	BIRD	LOCATION*	OBSERVER*
4/1	Chipping Sparrow (200+)	TGP	C McC
	Yellow-throated Warbler, Blue-gray Gnatcatcher	Rockwoods	C. Malone
4/2	N. Rough-winged Swallow	George Winter County Park	D. Haenni
	Sandhill Crane	Hwy. 79	D. Coles
	Pine Warbler	Busch CA	J. Chain
4/3	N. Parula	Castlewood	M. Brady
4/4	Henslow's Sparrow	Chubb Trail	M. Brady
	Sora	Horseshoe Lake	F. Holmes
	Least Sandpiper	Firma/Dalbow	T. Bormann, D. Rogles
4/5	Solitary Sandpiper	Keeteman Rd.	T. Bormann, D. Rogles
4/6	American Bittern	Riverlands	C. Alwood
	Chimney Swift	Forest Park	C. Ferree
4/7	Brown Creeper (50+), Field Sparrow (20+)	TGP	C. McC
4/8	Flickers (24)	TGP	C. McC
4/9	Green Heron	Forest Park	C. McC
4/10	Black-and-white Warbler	LVT	L. Bolo
	Broad-winged Hawk, White-eyed Vireo	Castlewood	M. Brady
4/12	Black-necked Stilt	CB CA	C. McC
	Yellow-headed Blackbird, Lark Sparrow	B. K. Leach	T. Berger
4/13	White-throated Sparrow (100+)	TGP	C. McC
4/14	Forster's Tern	HL	F. Holmes
4/16	Spotted Sandpiper	Castlewood	C. McC
	Red-eyed Vireo	Young CA	J. Ziebol
4/17	Cerulean Warbler, Worm-eating Warbler, Prothonotary Warbler, Yellow-throated Vireo	Castlewood	M. Brady
	Piping Plover	Riverlands	Rad Widmer
	Scarlet Tanager	TGP	B. Rudden
	Summer Tanager	TGP	J. Ziebol
	Brewer's Blackbird	CB CA	B. Rudden
	House Wren	TGP	R. Bodman
4/18	Grasshopper Sparrow	CB CA	J. Uffman
	Caspian Tern	Riverlands	J. Uffman
4/19	Tennessee Warbler	TGP	J. Ziebol
	Cliff Swallow	HL	F. Holmes
4/20	Golden-winged Warbler	TGP	D. Gibson
4/22	Rose-breasted Grosbeak	TGP	C. Alwood
	Veery	TGP	J. Ziebol
4/23	Black-throated Green, Ovenbird	TGP	C. McC
	Blue-headed Vireo	TGP	m. ob.
4/24	Blue Grosbeak	TGP	C. McC, M. Grant
	Virginia Rail	Forest Park	C McC
	Kentucky Warbler	LVT	YH, ML
	Blue-winged Warbler	Busch CA	D. Becher
4/25	Swainson's Hawk	CB CA	B. Rowe
4/26	Upland Sandpiper	Riverlands	A. Smith
4/27	Marsh Wren	Hillsboro	T & L Mills
4/28	Redstart	Forest Park	C. Ferree

*See page 3 for abbreviations used.

July Botany Report (cont. from pg. 9)

Creve Coeur Park plant list (as of July 5, 2010):

Acer negundo (box elder)	*Acer saccharinum* (silver maple)
Agastache nepetoides (yellow giant hyssop)	*Ageratina altissima* var. *altissima*(white snakeroot)
Ampelopsis cordata (raccoon grape)	*Aquilegia canadensis*(columbine)
Asimina triloba (pawpaw)	*Catalpa speciosa* (northern catalpa)
**Celastrus orbiculatus* (Oriental bittersweet)	*Celtis occidentalis* (northern hackberry)
Celtis tenuifolia (dwarf hackberry)	*Cercis canadensis* var. *canadensis* (eastern redbud)
**Cichorium intybus* (common chicory)	*Cornus drummondii* (rough-leaved dogwood)
Cornus florida (flowering dogwood)	**Dactylis glomerata* (orchard grass)
**Duchesnea indica* (Indian strawberry)	*Elephantopus carolinianus* (Carolina elephant's foot)
Fraxinus americana (white ash)	*Geum canadense* (white avens)
Gymnocladus dioica (Kentucky coffee tree)	*Hackelia virginiana* (Virginia stickseed)
Impatiens capensis (spotted touch-me-not)	*Juglans nigra* (black walnut)
Laportea canadensis (stinging nettle)	**Lepidium campestre* (field pepper cress)
Lobelia inflata (Indian tobacco)	**Lonicera japonica* (Japanese honeysuckle)
**Lonicera maackii* (Amur honeysuckle)	*Menispermum canadense* (moonseed)
**Microstegium vimineum* (Japanese stilt grass)	*Morus rubra* (red mulberry)
Oxalis stricta (yellow wood sorrel)	*Passiflora lutea* var. *glabriflora* (yellow passion flower)
**Perilla frutescens* (beefsteak plant)	*Persicaria longiseta* (smartweed)
Persicaria virginiana (Virginia knotweed)	*Phytolacca americana* (pokeweed)
**Plantago lanceolata* (English plantain)	*Podophyllum peltatum* (may apple)
Populus deltoides (eastern cottonwood)	*Prunus sp.* (wild plum)
Quercus alba (white oak)	*Rhus glabra* (smooth sumac)
**Rosamultiflora* (multiflora rose)	*Rubus occidentalis* (black raspberry)
Rubus sp. (blackberry)	*Ruellia strepens* (smooth ruellia)
Ruellia strepens (smooth ruellia)	*Sambucus canadensis* (common elderberry)
Sassafras albidum (sassafras)	*Scrophularia marilandica* (figwort)
Smilax hispida (bristly greenbrier)	*Solanum carolinense* var. *carolinense* (horse nettle)
Solidago sp. (goldenrod)	*Solidago ulmifolia* (elm-leaved goldenrod)
**Sorghum halepense* (Johnson grass)	*Teucrium canadense* (wood sage)
Tilia americana (basswood)	*Toxicodendron radicans* (poison ivy)
**Trifolium repens* (white clover)	*Ulmus rubra* (slippery elm)
Verbena urticifolia (white vervain)	*Verbesina alternifolia* (yellow ironweed)
Viola sororia var. *sororia* (common violet)	*Vitis aestivalis* (summer grape)

* Non-native species.