President’s Corner

Rich Thoma

One of Missouri’s most famous naturalists, George Engelman (1809-1884), was the topic of discussion at the October general meeting. Leading the discussion was noted St. Louis biographer and Webster University professor Michael Long. Dr. Long presented a preview of the biography he is currently writing on George Engelmann. Starting off the discussion, Dr. Long stressed that George Engelman had a lifetime “zeal” for science. His interest in science started at a very early age and lasted a lifetime. By training George Engelman was a medical doctor, but his true calling was the great outdoors, in particular botany. Dr. Long remarked that George Engelman frequently skipped out on his medical practice just to look for a particular plant that was in bloom. George Engelman was a noted expert on a variety of plants including dodders, cactus, grapevines, pines and freshwater algae. Collectors throughout the west sent specimens to Engleman for identification. George Engelman also played a major role in saving the French wine industry by identifying grape root stocks that had the most resistance to the aphids that were invading French vineyards. The Missouri Botanical Garden owes much of its legacy to George Engleman, who convinced Henry Shaw to create a “Scientific Garden” similar to those being constructed in England at the time instead of a “Horticultural Garden”. Dr. Long also pointed out that George Engelman provided collections and helped to form the Western Academy of Science of St. Louis (later becoming the Academy of Science, forerunner of today’s Science Center). Unfortunately, many of the specimens provided by George Engelman were lost in a great fire in 1869. Later in life, George Engelman participated in the United States and Mexico Boundary Survey, surveying pines in the Pacific Northwest. George Engelman is remembered in many ways, notably the Engelman Spruce (Picea engelmannii), in the St. Louis area by Engelman Woods along the Missouri River near St. Albans, and a 13,000 foot peak in Colorado named after him.

Ted MacRae, long time member of WGNSS and current Nature Notes editor, will speak at the November General Meeting. Ted is widely known as an expert on tiger beetles (Cicindelidae), longhorned beetles (Cerambycidae) and jewel beetles (Buprestidae). Like the famous naturalist E. O. Wilson, Ted has used his knowledge of insect taxonomy and habits to become one of St. Louis’ expert naturalists, and his web site Beetles in the Bush [http://beetlesinthebush.wordpress.com] illustrates the breadth of natural history topics in which he is interested. In recent years, Ted has added natural history photography to his list of skills. At the November meeting, Ted will be talking about insects, plants, and other natural history observations from his recent travels in Brazil and Argentina. Here’s a chance to see some exotic plants and animals. Expect to be amazed
with some great photography and, most importantly, great natural history stories.

As you read each issue of *Nature Notes*, I would like to draw your attention to the birding and botany reports compiled by David Becher and George Van Brunt, respectively. Each month, David and George tirelessly write about the birds and plants seen during a previous month’s field trips. The natural history observations made on these field trips are top notch and have often been used in other scientific publications. When you go on a WGNSS field trip, please be sure to thank David and George for their efforts at making *Nature Notes* a great publication. [Editor’s Note: contributors like David and George are an editor’s best friend!]

**WGNSS November General Meeting**

Our speaker for November is Ted MacRae, long-time WGNSS member and current *Nature Notes* editor. Ted is a research entomologist at Monsanto Company, where he works in the development of transgenic crops protected from insect pests, particularly those affecting soybean. In addition to his professional duties, Ted is an avid insect collector, specializing in the taxonomy, biology, and conservation of beetles and more recently becoming interested in insect macrophotography. Ted recently traveled to Brazil and Argentina for work, and when he wasn’t meeting with research cooperators he was exploring the local habitats and photographing the insects he encountered. Join us on **Tuesday, November 1** as Ted presents “The Bizarre and the Beautiful: Bugs from Brazil and Beyond.”

**Summer Bird Report (May–August)**

David Becher

After a violent spring the weather turned hot and dry for most of the summer. It was officially the fourth hottest summer in St. Louis history and a moderate drought. The major rivers, particularly the Missouri, were high for much of the time because of flood waters from further north. In addition, it was a periodical cicada year and the noise in some areas was impressive.

There was extensive flooding in Monroe County, Illinois in the early summer and some areas were inaccessible. The road from Riverlands to the confluence was closed by the flooding for most of the summer. It was opened on August 25th just in time for peak shorebird season. Shorebird habitat was better than most years.

Waterfowl are not usually very exciting in the summer, but there were a couple of reports of vagrant Mottled Ducks. Dan Kassebaum photographed one at Kidd Lake in Monroe County on August 10th. Matt Andrews reported a probable one on August 28th along Confluence Road. A dark mallard like bird was seen in the area by several people in the area over the following days.

Frank Holmes reported a very late Common Loon at Eagle Park near Horseshoe Lake on June 12th. Non-breeding American White Pelicans are now routine as summering birds. However, a few birds at Horseshoe Lake in pairs created discussion about the possibility of nesting attempts. The large collection of nests along the confluence road at Riverlands was confirmed as a Double-crested...
Cormorant colony. Josh Uffman counted 125 birds including adults and immature on August 29th. This is one of only a few known colonies in Missouri.

Least Bitterns were reported from many locations this summer. Birds were seen repeatedly during the breeding season at Little Creve Coeur, Columbia Bottom CA, and Riverlands Migratory Bird Area. In addition, there were reports from Voelkerding Slough near Dutzow in Saint Charles County by Don Hays on July 21st and by David Becher Riverking CA in Illinois where it may have been a new area species.

Heron species of all the usual species were common in the wet areas of Riverlands and Monroe County. The large number of juvenile Little Blue Herons in the flocks suggests a successful breeding season.

There were a number of reports of vagrant wading birds of southern breeding species this year. The drought in the southern states may have increased the tendency of birds to disperse northward. A Tricolored Heron was found by Josh Uffman on July 30th along Riverlands Way among the flocks of Little Blue Herons and Snowy Egrets. It was reported intermittently for about a week.

Another even more remarkable find was made by Peter Moxon. He found three juvenile Wood Storks near Kidd Lake in Monroe County, Illinois on August 23rd. The birds stayed for several days and were seen by a good many observers although they were not easy to find among the hordes of egrets.

Mike Thelan found a juvenile White Ibis at Columbia Bottom CA on July 17th. On August 6th, Andrew Reago found another (or the same one?) at Riverlands near Heron Pond.

A few Black Vultures continue to be found in the flocks of Turkey Vultures in the southern part of the area. The first Osprey report of the fall migration was made by David Marjamaa on August 27th at Riverlands. The only known nesting pair was at Carlyle Lake in Illinois.

Mississippi Kite numbers are apparently still increasing in the Saint Louis area. However, the report by Mike Brady of a remarkable concentration at Castlewood SP with at least 37 individual birds seen on June 19th was remarkable. Another interesting observation was of Mississippi Kites feeding on the hordes of Periodical Cicadas rather than on the more usual prey of high flying insects.

Juvenile Common Gallinules were reported by David Becher from Little Creve Coeur on August 23rd. He observed two adults and five young birds. The young birds were of two very different ages suggesting two clutches. A large number of birds
Short-billed Dowitcher. Photo by Bill Rudden (Monroe County, IL, 8/21).

White-rumped Sandpiper. Photo by Bill Rudden (Monroe County, IL, 6/3).

Western Sandpiper. Photo by David Becher (Monroe County, IL, 8/25).

both adult and juvenile were found in the drying remains of a extensive wetland along Route B in Monroe County in late August. A complete count was not obtained, but at least four groups appeared to be present.

The only confirmed report of King Rails was a family found by Mike Thelan along Outlet Road in Monroe County of August 27th. They were seen by a lucky few but the local farmer modified the area as he worked his fields and the birds apparently moved to another location. Soras were migrating by the end of August and Dave Rogles reported 14 in Monroe County at the end of the month.

The shorebird migration began in mid-July as usual, although the number and variety of birds was limited until late August. The presence of better than usual habitat in the area undoubtedly helped.

Charlene Malone reported six Semipalmated Plovers at Two Rivers NWR in Calhoun Co. Illinois on August 7th, but overall numbers of this species seemed low. Golden Plovers, however, were seen in good numbers, both in Monroe County and the Riverlands area. There were no area reports of the rarer plover species this year.

Black-necked Stilts nested again in Monroe County Illinois; based on the number of birds seen in the fall with some success. Total numbers were estimated by Dan Kassebaum at over 200. Over 50 were seen in one flock at Mitchie Road. Elsewhere Charlene Malone reported one at Columbia Bottoms CA on June 25th. But breeding north on Monroe County was not confirmed.

American Avocets were seen in good numbers. Wally George found four at Mitchie Road on August 15th that stayed for some time. David Becher had 14 at Heron Pond on the 25th. Four to eight birds were reported at the wetlands where the pipeline was put in at from August 28th onward.

The first Marbled Godwit of the season was found by the Thursday group in the large pond in Monroe County just south of the JB Bridge on August 18. Unfortunately it did not stay long. Another was found on the Confluence Road at the end of the month. It stayed longer for those willing to hike back to the far end of the ponds where it stayed with the Avocets.

The only Willet of the period was reported by Dave Rogles from Kidd Lake August 28th. Both Yellowlegs species and Pectoral Sandpiper were common as usual, but reports of Solitary Sandpiper seemed unusually low. David Marjamaa reported an early Ruddy Turnstone at the sewage treatment ponds near Simpson Lake Park in Valley
Park on July 30th. Josh Uffman reported another along the Confluence Road on 8/29 that remained to the end of the period.

The first Sanderling report was by Dick Coles at Riverlands on August 23rd. White-rumped Sandpipers were still migrating north at the beginning of June and Bill Rudden photographed some on the 3rd in Monroe County. Peps were common as usual in the fall migration. The majority as always were Least Sandpipers. Baird’s and Semipalmated Sandpipers were also common and there appear to have been an unusually large number of Western Sandpipers as well. Western Sandpiper reports include one found by Dave Rogles at Two Rivers NWR on August 14th, two found at Mitchie Road by David Becher on the 18th that remained for at least a week and a bird seen at Heron Pond on the 25th.

Tom Bormann found an Upland Sandpiper in Monroe County, Illinois on August 7th. The first Buff-breasted Sandpiper report was by Josh Uffman on August 7th on the mudflats in Ellis Bay at Riverlands, a slightly unusual location. However, this species was unusually common in the fall migration and was seen in numbers not only at the sod farms where they are usually looked for, but at every major shorebird location.

Stilt Sandpipers were common in fall migration. The first report appears to have been by Josh Uffman at Cora Island Rd. near Riverlands on July 24th. Dowitchers on the other hand were had to find with few or no August reports.

Wilson’s Phalaropes were unusually hard to find this fall. Dave Rogles reported one at Two Rivers NWR on August 14th and Wally George found one at Mitchie Road on the 18th that the Thursday group was unable to refind. The drought may have affected this southerly nesting species. Red-necked Phalarope, usually hard to find was more common. Two were found at Cora Island Road by the Saturday Group on the 27th and three were present the next day and through the end of the month.

The Least Terns were first reported at the Tern Barge at Riverlands on June 24th by David Becher. There was also a late Black Tern on the barge. The Least Terns remained, but the Black Tern was gone the next day, although the numbers were much lower than the last two years. The staff at
Western Kingbirds continue to increase in the Saint Louis area. In Bridgeton there were at least six nests located and pairs were reported at two locations in Saint Charles County. The Scissor-tailed Flycatchers returned to nest near US40 and Route N in Saint Charles Co. for another year. It was reported that one adult hit by car, but the other carried on and appeared to successful fledge their young. Another family was reported by Jackie Chain on along Stringtown Road in Monroe County, Illinois on July 30th.

Loggerhead Shrikes are now very rare in the Saint Louis area, but David Becher reported one from Peabody Riverking CA in Illinois on July 9th.

Josh Uffman reported four Sedge and two Marsh Wrens singing between Heron Pond and the equipment sheds on July 30. Marsh Wrens were heard all summer in the area between Heron Pond and the equipment building at Riverlands, which suggests nesting. Sedge Wrens, which normally return to the St. Louis area to raise a second brood in late summer, were hard to find. The dry conditions appear to have caused them to avoid some areas where they are traditional found.

Cerulean Warblers were hard to find this year. Two were reported by Mike Brady at Castlewood on June 19th. On the Lost Valley Trail at Weldon Springs there appeared to be only one pair. The birds did not appear to be present at several locations where they have been found in other year. Other sensitive species such as Ovenbirds, Worm-eating Warblers and Wood Thrushes were present in good numbers. American Redstarts, on the other hand, seemed unusually common at Lost Valley during the breeding season. Other breeding warbler species appeared to be holding their own.

At the end of August warblers starting migrating Andrew Reago reported 11 species including Canada, Golden-winged and Bay-breasted on 8/28. Bryan Prather reported a Western Tanager in breeding plumage near Creve Coeur Lake on August 5th.

Lark Sparrows were also difficult to find this year. There did not appear to be any at Labadie this year. Darst Bottom in St. Charles Co. was the only reliable location, but they appeared common there. Henslow’s Sparrows were found at multiple sites. Robertsville SP, and Shaw Nature Reserve had multiple birds on territory. They were also found

Gull along the Confluence Road on the 25th that was seen intermittently thereafter.

Migrating tern reports included six Forster’s Terns reported by Bryan Prather at Two Rivers NWR in Calhoun Co. on August 15th and a Caspian Tern reported by Josh Uffman at Riverlands on the 7th.
at the Weldon Springs Interpretive Center (Mt. Doom), where they breed last year. However, they apparently did not stay to nest. Charlene Malone also found one at Columbia Bottom on the June 25th, but it was not reported again.

June Botany Report

Compiled by George Van Brunt

June 6, 2011—Creve Coeur County Park, St. Louis County, MO (contributed by George Van Brunt).

The St. Louis Audubon Society is conducting an Upland Forest Restoration Project in Creve Coeur Park with grants from the Missouri Department of Conservation Community Stewardship Program, National Audubon’s Togetherness Program, and generous support from Fred Weber, Inc. The St. Louis Audubon Society started their honeysuckle eradication this past spring and will begin restoring the understory with native plantings this coming fall. The WGNSS Botany Group is assisting in this project by performing periodic plant surveys in the restoration area. We performed our first survey on July 7, 2010. Twelve botanists met on this very warm, sunny day to perform our second survey. The botanists included Fr. Sullivan Wayne Clark, Nancy Clark, Jason Allen, Burt Noll, Jack Harris, Pat Harris, Jeannie Moe, Paul Corley, John Oliver, and George Van Brunt. Mitch Leachman, executive director of the St. Louis Audubon Society, met us in the parking lot and accompanied us for part of the walk. We botanized the Bootlegger’s Run Trail for a couple of miles through rich woodland.

Most of the plants we identified were not in bloom; they were either past bloom or had yet to bloom. The few that were blooming included Packera glabella (butterweed), Duchesnea indica (Indian strawberry), Persicaria punctata (dotted smartweed), Erigeron philadelphicus (Philadelphia fleabane), Tridens perfoliata (common Venus’ looking glass), Sambucus canadensis (elderberry), and Erigeron annuus (daisy fleabane). Other notable species we found included Elephantopus carolinianus (Carolina elephant’s foot), Hackelia virginiana (stickseed), Scrophularia marilandica (late figwort),

Ageratina altissima (white snakeroot), Ellisia nytelae (Aunt Lucy), Osmorhiza longistylis (anise-root), Agastache nepetoides (yellow giant hyssop), Arisaema triphyllum (Jack-in-the-pulpit), Arisaema dracontium (green dragon), and Galium circinans (wild licorice). Ferns included Cystopteris protona (fragile fern), Botrychium virginianum (rattlesnake fern), and the find of the day, Ophioglossum vulgatum (southern adder’s tongue). Though not particularly rare, it is not on the map for St. Louis County.

One interesting plant that we found in bloom was Scutellaria ovata (heart-leaved skullcap). The genus Scutellaria belongs to the Lamiaceae (mint family) and has about 300 species, 10 of which are found in Missouri. The genus name Scutellaria comes from the Latin word “scutella” meaning a small dish or saucer. This name refers to the small, curved, sac-like growth, technically called the scutellum, on the upper part of the calyx (sepals) of each of the species in this genus. The photo I’ve included to illustrate this sac-like growth is of Scutellaria incana. I used this species simply because my photo of S. incana is better than my photo of S. ovata, but the same structure can be seen on S.
Scutellaria ovata (heart-leaved skullcap)—inflorescence (top) and heart-shaped leaf (bottom).

Scutellaria ovata as well as all the other Scutellaria species. The scutellum forms the “tractor seat” characteristic of the Scutellaria fruits. The common name skullcap comes from the dome-shaped upper lip of the corolla (petals) which resembles the top of a human skull. The species epithet ovata indicates the leaf shape as shown in the accompanying photo.

Lamiaceae is a large, mostly temperate region family that probably evolved from the largely tropical Verbenaceae (vervain family). Recently some genera of the Verbenaceae have been reclassified in the Lamiaceae. An example is Callicarpa americana (American beautyberry).

June 13, 2011—Valley View Glades Natural Area, Jefferson County, MO (contributed by Wayne Clark with additional contributions by Jack Harris).

It was a pleasant overcast day in the low 70s. Nine botanists, Fr. Sullivan, George Van Brunt, Jason Allen, Larry Morrison, Wayne Clark, Nancy Clark, Burt Noll, Jack Harris, and John Oliver.

Valley View Glades are dolomite glades. Most glades in Missouri are of the dolomite type. Dolomites provide soils that are slightly acidic to moderately alkaline (pH 6.1 - 8.4) and have high fertility. The vegetation is dominated by broadleaved herbaceous plants (forbs), grasses, and sedges. There are about 250 species of plants recorded at Valley View. The Natural Area is not all glades, much of it is wooded. Many of the following plants listed were found in the woods or at the edge.
Along the wooded trail from the parking lot to the glade we observed *Scutellaria ovata* (heart-leaved skullcap), *Dianthus armeria* (Deptford pink), *Solidago ulmifolia* (elm-leaved goldenrod), *Verbena heliandroides* (yellow crown beard), *Erigeron annuus* (daisy fleabane), and *E. strigosus* (daisy fleabane) were at the edge of the woods. *Penstemon digitalis* (smooth beard-tongue), *Desmanthus illinoensis* (Illinois bundle flower), *Echinacea simulata* (glade-coneflower), *Asclepias viridiflora* (green milkweed), *Arisaema triphyllum* (Jack-in-the-pulpit). Some of the more common glade plants observed were *Oenothera macrocarpa* (Missouri evening primrose), *Clematis fremontii* (Fremont's leatherflower), *Castilleja coccinea* (Indian paintbrush), and *Silphium terebinthinaceum* (prairie dock). The meaning of *Silphium* (rosinweed) is "resinous juice". The gummy resin that oozes from a wound in the plant was used by Native Americans and pioneers as a chewing gum. The species name *terebinthinaceum* is from the Greek meaning "like turpentine". *Dalea*
close the list with *Pycnanthemum tenifolium* (slender mountain mint), *Rosa carolina* (pasture rose), *Solidago gattingeri* (goldenrod), *Coreopsis lanceolata* (tickseed coreopsis), *Uvularia grandiflora* (large bellwort), *Galium concinnum* (shinning bedstraw), *Hydrastis canadensis* (goldenseal), *Blephilia ciliata* (Ohio horse mint), *Helianthemum bicknellii* (rockrose), *Polygala senega* (Seneca snakeroot), and *Asclepias purpurascens* (purple milkweed).

**June 20, 2011—“Tylka Gardens”, Jefferson County, MO** (contributed by John Oliver).

**Time:** 9:30–11:30 a.m.

**Participants:** Dave Tylka, Kathy Thiele, Jeanne Clauson, George Van Brun, Kevin Bley, Wayne Clark, Nancy Clark, Jason Allen, Burt Noll, Jeannie Moe, Jack Harris, Pat Harris, Fr. Sullivan, Larry Morrison, Sue Schoening, and John Oliver.

St. Louis botanists “of a certain age” will well-remember the name Arthur H. Christ. Art was a member of WGNSS as early as the 1930’s. Even before that, he was active in the legendary St. Louis Wildflower Club where he was known as “the Saunterer,” it being the custom for members to adopt a colorful nickname. Many of us who were lucky enough to know Art, can vividly recall his quick wit and his clever descriptions and methods for distinguishing similar species, as well as his expertise in identifying difficult groups, particularly the genus *Carex*. He had a piece of property in Jefferson County which was his “retreat” and while his living quarters there were rather Spartan, the surrounding fields and woodlands were soon augmented with some of his favorite plants, native and non-native, both the common and the unusual. Many of these special floral treasures might have been removed or neglected had the property passed to a buyer unfamiliar with or less appreciative of native plants than Art, who died in 1991. Fortunately, and altogether intentionally, Art made sure the property was in good hands when he sold it to WGNSS members David and Karen Tylka, who have cared for it and made extensive improvements. Dave worked for many years with the Missouri Department of Conservation and also teaches in the biology department of the St. Louis Community College at Meramec.

Art’s small house has been converted to storage and the Tylkas have built a modern home where they live year-round. Some of the non-native plants have been removed and the area around the house is rich with Missouri natives representing several different natural communities. Areas that are naturally wetter or which carry runoff have been planted with species appropriate to those situations.

These “wetland” portions of the gardens were the first part we visited. Dave explained the history of his additions and improvements, pointing out typical species that were well-suited to such an environment. Here we saw *Asclepias incarnata* (swamp milkweed), *Rudbeckia subtomentosa* (sweet coneflower), *Solidago patula* (swamp goldenrod), *Onoclea sensibilis* (sensitive fern), and a rarely seen member of the Rose Family, *Filipendula rubra* (queen of the prairie), just coming into bloom.

A sunny area near the house was planted with glade plants very much at home in the soils and environment of Jefferson County. *Ruellia humilis* (fringeleaf wild petunia), *Phemeranthus calycinus*, formerly *Talinum calycinum* (largeflower fameflower), *Penstemon digitalis* (foxglove beardtongue), *Baptisia australis* (blue wild indigo), *Coreopsis verticillata* (threadleaf coreopsis), *Penstemon covea* (showy purple beardtongue), *Callirhoe involucrata* (purple poppmallow), *Silene regia* (royal catchfly), and even *Cheilanthes lanosa* (hairy lip fern) growing along a wall made handsome display.

Three types of coneflowers, *Echinacea paradoxa* (yellow coneflower), *Echinacea purpurea* (eastern purple coneflower), *Echinacea simulata* (glade coneflower) were found here and in the area around “the Art Christ Mansion,” where an old field crowded with *Liatris pycnostachya* (prairie blazing star) in bud promised an amazing display soon to come.

We took a walk on trails which Dave has constructed down a hillside through the woods. In addition to the usual woodland trees, shrubs and forbs, we saw some highly conservative species such as *Actaea pachypoda* (white baneberry) and *Panax quinquefolius* (American ginseng). Returning to the house, we had refreshments (graciously supplied by the Tylkas) near a small pool and water feature which contained native aquatic and water-loving plants like *Saururus cernus* (lizard’s tail), *Justicia americana* (American water-willow), *Equisetum hyemale* (scouringrush horsetail), and...
Juncus effusus (soft rush). Many thanks to Dave and Karen for inviting us to visit this special place and for their generous hospitality. Before leaving, I took an opportunity to appreciate a particular one of several specimens that are directly attributable to Art Christ. Between the two houses, old and new, are some examples of one of my favorite plants, Cladrastis kentukea (Kentucky yellowwood), a beautiful tree which is uncommon to endangered throughout its very restricted natural range. The first botanist to observe it was André Michaux who admired its form and smooth bark during an icy rain in February of 1796. It is native to Missouri in a few counties along the Arkansas border and was also discovered (by the WGNSS group, including Art) in Sam A. Baker State Park.

The tree has beautiful, fragrant white flowers much loved by bees, and its root bark was used to make a clear yellow dye. I’m glad I knew Art and feel these trees are a fitting tribute to his memory—uncommon, durable and valuable, just like Art.

The complete list of plant species observed on this trip: Actaea pachypoda (white baneberry), Adiantum pedatum (northern maidenhair fern), Amorpha fruticosa (tall false indigo), Anemone virginiana (tall thimbleweed), Aquilegia canadensis (eastern columbine), Asarum canadense (Canadian wild ginger), Asclepias incarnata (swamp milkweed), Asclepias tuberosa (butterfly milkweed), Baptisia alba (white wild indigo), Baptisia australis (blue wild indigo), Blephilia hirsuta (hairy pagoda-plant), Botrychium virginianum (rattlesnake fern), Callicarpa involucrata (purple poppymallow), Cheilanthes lanosa (hairy lip fern), Cladrastis kentukea (Kentucky yellowwood), Coreopsis verticillata (threadleaf coreopsis), Desmodium glutinosum (pointleaf ticktrefoil), Echinacea paradoxa (yellow coneflower), Echinacea purpurea (eastern purple coneflower), Echinacea simulata (glade coneflower), Elymus hystrix (eastern bottlebrush grass), Equisetum hyemale (scouringrush horsetail), Euonymus alatus (burningbush), Filipendula rubra (queen of the prairie), Glandularia canadensis (rose verbena), Hypericum gentianoides (orange grass), Iris cristata (dwarf crested iris), Itea virginica (Virginia sweetspire), Juncus effusus (soft rush), Justicia americana (American water-willow), Laportea canadensis (Canadian wood nettle), Liatris pycnostachya (prairie blazing star), Manfreda virginica (American aloe), Monarda bradburiana (Bradbury’s beebalm), Onoclea sensibilis (sensitive fern), Panax quinquefolius (American ginseng), Parthenium integrifolium (wild quinine), Passiflora lutea (yellow passionflower), Penstemon ebea (showy purple beardtongue), Penstemon digitalis (foxglove beardtongue), Phemeranthus calycinus (largeflower fameflower), Philadelphus coronarius (sweet mock orange), Pilea pumila (clearweed), Polemonium reptans (Jacob’s ladder), Polygonatum biflorum (Solomon’s seal), Ratibida pinnata (grayhead coneflower), Rudbeckia fulgida (orange coneflower), Rudbeckia subtomentosa (sweet coneflower), Raellia humilis (fringleaf wild petunia), Saururus cernuus (lizard’s tail), Sedum ternatum (woodland stonecrop), Silene regia (royal catchfly), Solidago patula (swamp goldenrod), Spigelia marilandica (Indian pink), Stylisporum diphyllum (celandine poppy), Tradescantia...
We were walking in the rain. The walking bridge had debris on it, indicating how high the creek had been. Nancy Clark stayed with the car, and while we were walking she said the creek had risen considerably, and was lapping at the tires of the cars. By the time we returned, it had lowered again, leaving wet pavement behind.

I checked the fen area and found *Pedicularis lanceolata* (swamp lousewort), which won't bloom until September. *Pedicularis canadensis* (forest lousewort) was already bloomed out on the trail. We found several *Cirsium muticum* leaves. This thistle likes spring fed areas.

*Tradescantia subaspera* (broad-leaved spiderwort), a very robust spiderwort, was in bloom. *Lysimachia lanceolata* (lance-leaved loosestrife) is a low plant, and its yellow star flowers are always facing the ground. *Dalea candida* (white dalea) and *Dalea purpurea* (purple dalea) were both in bloom on the glade. *Calamintha arkansana* (low calamint) was in bloom along the glade trail. *Symphyotrichum laeve* (smooth aster) was a common aster there, but it won't bloom until September.

*Ostrya virginiana* (eastern hop hornbeam) is one of our commonest Ozark trees. Large numbers of them occur on north and east facing wooded slopes, but it rarely blooms or fruits there because of its understory condition. At the edge of the glade, we found a specimen with a few fruits. *Melanthium woodii* (formerly *Veratrum woodii*) (false hellbore) was common, but many of its leaves were afflicted with a fungal disease which may have resulted from external moisture during our wetter than average springtime.

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**July Botany Report (part 1)**

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Compiled by George Van Brunt

**July 4, 2011—Katy Trail State Park, Research Park Access, St. Charles County, MO (contributed by Jason Allen).**

On the 235th anniversary of the declaration of our independence, 10 botanists gathered to explore a small portion of the Katy Trail. The lineup included Fr. Sullivan, George Van Brunt, Jason Allen, Jack Harris, Pat Harris, Steve Turner, Ruth TenBrink, Rich Gray, John Oliver, and Wayne Clark. For being in the throes of a St. Louis
summer, the early morning temps were moderate on this overcast day. Many interesting plants were in bloom along the retaining wall of the Missouri Research Park Trail leading to the Katy Trail itself. For example, *Echinacea purpurea* (purple coneflower), *Campanula americana* (tall bellflower), *Monarda fistulosa* (wild bergamont), *Desmidium nudiflorum* (nakedflower ticktrefoil), *Desmidium glutinosum* (pointed-leaved tick trefoil), and *Sambucus canadensis* (elderberry) were all displaying beautiful inflorescences. Other plants of note, not in bloom, included *Solidago altissima* (tall goldenrod), *Solidago ulmifolia* (elm leaved goldenrod), *Penstemon digitalis* (beard-tongue), *Hydrangea arborescens* (wild hydrangea), *Eupatorium perfoliatum* (boneset), *Eupatorium altissimum* (tall thoroughwort), *Euphorbia corollata* (flowering spurge), *Lactuca saliva* (willow-leaved lettuce), *Maianthemum racemosum* (false solomon’s seal), *Circaea lutetiana* (enchanter’s nightshade), and *Arisaema dracontium* (green dragon).

While hiking along, a technique for vegetatively distinguishing the two native species of *Impatiens* was employed and, though the sample size was limited, the hypothesis could not be falsified. According to Justin Thomas the trick to correctly identifying the two species, while not in bloom, is to observe the number of teeth along one side of an individual leaf. *Impatiens capensis* (jewelweed, spotted touch-me-not) has nine or fewer, while *Impatiens pallida* (jewelweed, pale touch-me-not) has more than nine. We managed to find both species in bloom and compared the number of teeth and in every case this bit of “botanical lore” seemed to be supported. More data will need to be collected to determine if these morphological characters are consistent statewide.

Once reaching the Katy Trail one could not help but notice the spectacular display put on by *Polymnia canadensis* (leaf-cup). Even though many wonderful firework displays were to come later that evening, in my humble opinion none could match the majesty of this plant in full bloom. Many similar plants were observed along the Katy Trail and the Research Park Trail. In the end many plants were observed and photographed, but more importantly friendships and acquaintances were established and/or maintained and as the saying goes “a good time was had by all”.


**Time:** 9:30–11:30 a.m.

**Conditions:** Sunny, low 90s F.

**Participants:** Jason Allen, Nancy Clark, Wayne Clark, Lillian Collins, Terri Eggers, Pat Harris, Nels Holmberg, Louise Langbein, Michelle Lee, Burt Noll, John Oliver, Chris Reyering, Fr. Sullivan, Steve Turner, Dave Tylka, George Van Brunt.

The group of sixteen botanists assembled at the Shaw Nature Reserve's visitor's center on a very warm and humid morning. From there we drove a short distance to the northeast entrance leading from Gray Summit Road onto Freund Lane. This route theoretically provides the most direct access to the wetland area, though the two locked gates that must be dealt with along this route may in practice make the wetland parking area to the west a more facile starting point.

The rich abundance of flora offered by Shaw Nature Reserve was immediately in view as we made our way from the (relatively new) Dana Brown parking lot down to the wetlands. The mesic to wet prairieland immediately to the north and west of the path supported a profusion of species in flower, including *Ratibida pinnata* (gray-headed coneflower), *Eryngium yuccifolium* (rattlesnake master), *Monarda fistulosa* (wild bergamot), *Teucrium canadense* (American germander), *Daucus carota* (Queen Anne’s lace), *Heliopsis helianthoides* (ox-eye sunflower), *Veronicastrum virginicum* (culver’s root), *Rudbeckia hirta* (black-eyed Susan), and *Silphium integrifolium* (rosin weed). Vegetative specimens (not yet flowering) of three other *Silphium* species were also observed: *S. laciniatum* (compass plant), *S. perfoliatum* (cup plant), and *S. terebinthinaceum* (prairie dock). Numerous pre-flowering stems of *Helianthus grosseseratus* (sawtooth sunflower) were also present.

The prairie area contained two species of mountain mint: *Pycnanthemum tenuifolium* (slender mountain mint), and *Pycnanthemum pilosum* (hairy mountain mint). Although similar in overall appearance, these two are readily distinguished by the shape of the leaves (*P. tenuifolium* leaves are linear and almost needlelike, whereas *P. pilosum* has leaves with are wider and also hairier), and by
Platanthera peramoena, inflorescence (L) and single flower (R). Photos by Steve Turner.

Aroma (crushed foliage of *P. pilosum* is distinctly minty in fragrance; *P. tenuifolium* is almost odorless). The area also contained two species of ironweed: *Vernonia baldwinii* (western ironweed), with its recurved involucral bracts, and *Vernonia missurica* (Missouri ironweed), with its appressed involucral bracts.

One of the more distinctive grasses in the area was *Tripsacum dactyloides* (Eastern gama grass), which has tall, sturdy stems topped with knobby spikes which separate easily into hard, shiny, nearly cylindrical seeds. Both staminate and pistillate flowers were in evidence, the former appearing as a fringe of dangling anthers; the latter taking the form of furry pistillate tendrils snaking out laterally from the spike.

To the east of the path lay woodlands, and while these were not examined closely, we did note *Sambucus canadensis* (elderberry), *Rhus copallinum* (winged sumac), and *Geum canadense* (white avens).

As we continued on to the trail ringing the wetland lake, additional species were seen in the strip of turf separating the gravel path from the water. These included *Lythrum alatum* (winged loosestrife), *Desmanthus illinoensis* (Illinois bundleflower), *Verbena urticifolia* (nettle-leaved vervain), *Verbena hastata* (blue vervain), *Sabatia angularis* (rose gentian), *Chamaecrista fasciculata* (partridge pea), and *Cicuta maculata* (water hemlock). An incongruous find was a single straggling specimen of *Manfreda virginica* (false aloe), a glade denizen found in the southern half of Missouri and usually not around water. Since there is a robust population of this species elsewhere on the Reserve, it is possible that seed capsules were somehow transported between the two locations. Passive hydrologic transmission seems unlikely due to the contour of the terrain, which slopes from the extant population southward, toward the Meramec River, rather than toward the wetland area.

The prize of the day was *Platanthera peramoena* (purple fringeless orchid). These were first discovered growing in the wet margin between path and lake about a year previously, and they have returned this year. Nine inflorescences were counted by John Oliver; these are beautiful dense, cylindrical clusters of brilliant reddish-purple flowers atop a stalk perhaps 30-60 cm in height. Each flower has a broad lower lip and two lateral wings, giving it an appearance fancifully similar to a snow angel. In some *Platanthera* species these petals are highly divided or fringed, but in *P. peramoena* they are instead finely toothed (hence the adjective "fringeless"). Interestingly, the Shaw Nature Reserve plants may have originated from seeds sown in a different area eighteen years previously, though this is not known for certain. The blooms first appeared in 2010, potentially following an amazing seventeen years of gestation. The Reserve’s restoration biologist, James Trager, has briefly described this unusual appearance (see http://beetlesinthebush.wordpress.com/author/jt_rager/).

Growing directly in the lake was a population of *Nymphaea odorata* (water lily) so vast that it threatens to cover the entire surface of the water. The lake also supports populations of *Ludwigia peploides* (floating primrose willow), *Pontederia cordata* (pickerel weed), *Persicaria hydropiperoides* (mild water pepper), and a few *Sagittaria sp.* (arrowhead).

As we rounded the far end of the wetland and turned back toward our starting point, a few
additional species were found in the moist prairie and woodland border in that area. These included *Filipendula rubra* (queen of the prairie), *Astragalus canadensis* (rattleweed), *Eupatorium purpureum* (Joe-Pye weed), *Eupatorium perfoliatum* (boneset, not yet in bloom), *Scutellaria incana* (downy skullcap), and *Echinacea purpurea* (purple coneflower).

**September Entomology Meeting**

*Jane Walker*

A small group of entomology enthusiasts met at the Butterfly House on September 19 to share their insect collections and adventures over the summer. Mark Paradise started off with a large long-horned beetle (Cerambycidae), along with a beautiful butterfly, he collected in Taiwan. Jane Walker showed pictures of various insects she encountered in her garden. Father Jim Sullivan gave a talk on the Lady Beetle project and gave a brief chronology of the status of several lady beetle species both native and non-native. Over the summer he was able to contribute to the project records on several lady beetles. Finally, Ted MacRae showed some beautiful pictures he took of insects, some using techniques he learned at an entomology photography seminar at Shaw Nature Reserve presented in part by Dr. John Abbott. Dr. Abbott is curator of insect collections at Texas University, is the webmaster of Odonata Central, and author of *Dragonflies and Damselflies of Texas and the South-Central United States*, among many other scientific publications.

**Two Things I Love About Fall**

*Ted C. MacRae*¹

On the last weekend of August I made another trip to the White River Hills of north-central Arkansas in a last gasp effort to confirm the occurrence in the area of the swift tiger beetle

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¹ Text and photos reprinted from an article posted at the author’s website [http://beetlesinthebush.wordpress.com](http://beetlesinthebush.wordpress.com) on September 20, 2011.
northeasternmost limit of its distribution. Fresh evidence of recent rains was seen, and accordingly the beetles were out in fairly decent numbers in the same area where I found them last fall. I took the opportunity to photograph a few individuals (which I had not done last year) and then turned my attention to looking for other insects. I had my eye out for the spectacularly beautiful bumelia borer (Plinthocoelium suaveolens) and eventually found one. I hoped also to see the marvelously monstrous Microstylum morosum (North America’s largest robber fly), which I found at this site in 2009 as a new state record and was rewarded with two individuals (these will serve as vouchers for the state record, since I didn’t collect it in 2009). Temperatures were rather warm and both of these latter species are traditional “summer” species; however, the presence of prairie tiger beetles, the tawny tinge to the prairie grasses, and the noticeably longer shadows under a deep blue sky told me that fall was, indeed, on the way.

While prairie tiger beetles are (at least for me) the most iconic harbinger of fall in the White River Hills, another classic fall sight was the thick stands of prairie dock (Silphium terebinthinaceum) with their tall, bolting flower spikes. In Missouri this plant serves as a larval host for the longhorned beetle Ataxia hubbardi. In my early years of collecting in Missouri’s glades, I delighted in finding adults of these beetles clinging to the flower stalks during fall—presumably laying eggs from which larvae would hatch and bore down into the tap-root. Although commonly regarded as a pest in sunflower in the southern Great Plains, individuals associated with prairie dock in Missouri’s glades seem different—smaller, narrower, and darker—than those found on sunflower and other more common hosts. Additional material will be needed to make a final assessment on whether these individuals represent a distinct taxon; however, I have not been able to find this species on prairie dock in Missouri since I moved back to the state nearly 16 years ago. The reason for this sudden disappearance remains a mystery, and perhaps it is purely coincidental that the Missouri Department of Conservation began managing all of their glades with prescribed burns during my previous 5-year absence from the state. In the meantime, I will continue to examine prairie dock stems every fall in the hopes that once again I will find the beetles and be able to come to a decision about their taxonomic status. Perhaps I should re-focus my efforts in “low quality” (i.e., never-burned) gladey roadsides rather than our state’s “high quality” (i.e., high floral diversity) natural areas.

Lectures at St. Louis Zoo

Submitted by Sandra Faneuff

The Whitney and Anna Harris Conservation Forum, a public forum partnership of the Academy of Science—St. Louis, the University of Missouri—St. Louis Whitney R. Harris World Ecology Center, the Saint Louis Zoo and the Missouri Botanical Garden, presents Giants in American Conservation, by David Sibley, Susan Flader and Maril Hazlett at the St. Louis Zoo Living World on Nov 3, 5:30–9 pm. Registration is required: call (314) 516-6203, or email hintonpa@umsl.edu

1 Office Manager, Education Department, St. Louis Zoo.
The Academy of Science-St. Louis, in partnership with the Saint Louis Zoo, presents the 2011-2012 Science Seminar Series with Science Seminars and Conservation Conversations. Adults, teachers, middle and high school students, and the general public are invited to attend these no-cost lectures on topical issues in science. Lectures are from 7:30–9 p.m. For information on this event and other programs at the Academy of Science-St. Louis check their website [www.academyofsciencestl.org](http://www.academyofsciencestl.org) or call (314) 533-8586.

### SCIENCE SEMINAR SERIES

- **Nov 12**—Left Out in the Cold: The Story of the Barrow Global Climate Change Research Lab in Barrow, Alaska, by Janet Baum, AIA.
- **Dec 7**—Bringing Wind Energy Home®, by Tom Carnahan, JD.

### CONSERVATION CONVERSATIONS

- **Nov 8**—Biodiversity Conservation in Armenia, by Aram Aghasyan, PhD.

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**Group Activity/Walk Schedules**

**BOTANY GROUP**

Chair—George Van Brunt

**Monday Botany Walks**, Leader—Fr. James Sullivan; now in his 44th year! 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](mailto:jahar@mac.com) or (314) 368-0655 and receive an email no later than Sunday about the following Monday’s trip.

**ENTOMOLOGY GROUP**

Co-Chairs—Phil Koenig and Jane Walker

**Monday, October 17; 7:00 p.m.** We will be sorting, pinning, preparing and identifying insect collections we made at LaBarque Creek Conservation Area in May. Anyone is welcome to join us, with or without experience. We need people to cut out labels and help itemize out collection. This collection will be submitted to the Missouri Department of Conservation once we have identified most of the species collected. Butterfly House – Faust Park, 15193 Olive Blvd., Chesterfield.

**Monday, November 17; 7:00 p.m.** Phil Koenig will be updating us on his ongoing Swamp Metalmark (Calephalis muticum) searches for the U.S. Fish & Wildlife Service. Butterfly House – Faust Park, 15193 Olive Blvd., Chesterfield.

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**NATURE BOOK CLUB**

Chair—Lisa Nansteel

The Nature Book Club is a group of naturalists who meet once a month to discuss a book chosen for its general interest from botany to zoology. The group meets at members’ homes on the second Tuesday of the month from 1:30–3 p.m. For meeting locations and directions contact Pat Brock Diener at (314) 962-8665 or Lisa Nansteel.
at (636) 391-4898. All are welcome—especially newcomers! Upcoming books:

- Nov 8—*Last Child in the Woods* by Richard Louv
- Dec 13—*Winterdance* by Gary Paulson
- Jan 10—*Finding Beauty in a Broken World* by Terry Tempest Williams

**ORNITHOLOGY GROUP**

Chair—David Becher

**Saturday Bird Walks**, Leader—David Becher. All walks are at Des Peres Park (except Oct 15th and Oct 29th, which will be at Teal Pond at Riverlands) and begin at 8 a.m. Walks 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. If you have questions, contact David at (314) 576-1146 or DavidBecher@msn.com.

**Thursday Bird Walks**, Leader—Jackie Chain. The WGNSS Birding Group meets at 8 a.m. at Des Peres Park parking lot off Ballas Road just north of Manchester Rd. and east of West County Mall. Note: Beginning the first Thursday in November through March, we will change the meeting time to 8:30 a.m. Please contact Jackie Chain at (314) 644-5998 or chainjac@sbcglobal.net if you have questions.

If there is a change in meeting time or place, we will advise by posting on MOBIRDS. No trip is planned for Thanksgiving Day, November 24th.

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

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**Editor's Corner**

**Ted C. MacRae**

**NATURE NOTES BY EMAIL**

*Nature Notes* is available by regular post or email; however, there are significant advantages to receiving it by the latter method. These include elimination of printing and mailing costs (reducing not only the cost of your subscription, but also decreasing its environmental impact) and the ability to view *Nature Notes* in full color. Embedded hyperlinks allow instant navigation to email addresses and websites. Of course, you can always print your electronic copy of *Nature Notes* if you wish (please use recycled paper and print on both sides). *Nature Notes* by email is sent as a PDF, which can be opened using Adobe Reader (download free at [http://get.adobe.com/reader/](http://get.adobe.com/reader/)). Contact Joe Whittington, Assistant Treasurer, at whittex@aol.com to convert your subscription.

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We welcome announcements of nature related events in the St. Louis area, notices of publications, and original nature oriented articles. Suggested topics include field trip accounts, information about local natural areas, interesting nature sightings, or reviews of nature related books. Articles reprinted from other sources must obtain permission from copyright holders.

Send submissions to [ted.c.macrae@monsanto.com](mailto:ted.c.macrae@monsanto.com). Limit text formatting to bold for emphasis and italics for scientific names. Avoid tabs, extra spaces, multiple hard returns, underlining, etc. (these will be removed during final formatting). Photographs will be included on a space-available basis. Contributions are welcome from all—remember; this is your newsletter!