



Nature Notes

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President's Corner

Rich Thoma

The new year for WGNSS started off with a very well received general meeting at Powder Valley Nature Center. Long time member of WGNSS **Jane Walker** was the featured speaker for the evening. Jane spoke about her twelve years of field work studying the federally endangered Hine's Emerald dragonfly (*Somatochlora hineana*) in Missouri. In Missouri, the Hine's Emerald is a truly rare insect. This dragonfly was first described in 1929 in Ohio and sporadically collected for the next 60 years. It wasn't until 1989 when the first Hine's Emerald was collected by **Ron Panzer** at Grasshopper Hollow and identified by **Tim Vogt** in Missouri. Jane got involved with this endangered species in 1999 and has spent the last twelve years looking for the dragonfly in Missouri. We learned that in Missouri, habitat requirements are very specific. The Hine's Emerald is found only on wet fens with a limestone base. Short grasses must be growing in clumps surrounded by water. In addition, larvae of the dragonfly must have burrows of the Devil's Crayfish (*Cambarus diogenes*) in which to live. There are only a few sites in Missouri where all these conditions are met. Most fens are small, no bigger than your average back yard. In Missouri, the Hine's Emerald has been found on fewer than 15 fens. Finding Hine's Emeralds is also very difficult. Adult dragonflies fly only during the month of June and are on the

wing only in the morning. An added complication is that the Hine's Emerald looks like a closely related and much more common species, the Clamp-tipped Emerald (*S. tenebriosa*). Initially this other species was thought to require a clear stream habitat. Jane was part of the team that discovered that the other Emerald is also found on the same fens where the Hine's Emerald lives. Even after twelve years, finding Hine's Emeralds is not easy. Jane considers finding two, a very good day.

Also at the meeting, WGNSS scholarship winner **Richard Stanton** (University of Missouri-Columbia) gave a brief presentation on his efforts to understand the habitat needs of the Brown-headed Nuthatch (BHN). BHN's are a southern bird that does not live in Missouri. However, they are commonly found in the nearby Ouachita Mountains of Arkansas. The big question is why these birds are not found in the Missouri Ozarks, which has habitat very similar to the Ouachita Mountains? Richard's research for the next two years takes him to the Ouachita Mountains to gather data about the habitat requirements of this bird. The goal of the study is to find out if BHN's can live in Ozark habitat. Should Richard's research be successful, BHN introductions in Missouri are possible. With global warming affecting many species, the Ozarks could become a refuge for the BHN.

Michael Long, noted St. Louis biographer will be the WGNSS guest speaker at the October meeting. Instead of the usual natural history topic, Mr. Long will give us a sneak peak at his current biography

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on one of Missouri's most famous naturalists, **George Engelmann** (1809–1884). Expect to learn what it was like to be a naturalist at a time when St. Louis was considered a frontier town. What was it like being part of an expedition, exploring the western United States? We should also learn how George Engelmann became a leading botanical expert of his day and contributed to the formation of the Missouri Botanical Garden and the Academy of Science of St. Louis (precursor of the St. Louis Science Center). For a truly historical perspective on the early years of natural history in St. Louis, you can't miss this meeting.

In this issue of *Nature Notes* [pg. 20], be sure to read the letter written to **John Hoke** of the Missouri Department of Natural Resources. WGNSS is supporting efforts to designate the LaBarque Creek watershed as an **Outstanding State Water Resource**. Many in WGNSS are familiar with LaBarque Creek and Hilda J. Young Conservation Areas within the watershed and are looking forward to the day when LaBarque Creek State park becomes a reality. By naming the watershed an Outstanding Water Resource, the state recognizes the unique qualities of this habitat

located a short drive from St. Louis. This designation will help to ensure that the entire watershed is protected long into the future. WGNSS considers the LaBarque Creek watershed a hidden treasure and worth every effort at preserving. My thanks go out to **Jane Walker** who learned about the state efforts to designate LaBarque Creek an Outstanding State Water Resource, presented this information to the board and drafted the letter found in this issue of *Nature Notes*.

WGNSS October General Meeting

George Yatskievych

Many WGNSS members know George Englemann as the first botanist at the Missouri Botanical Garden from its opening in 1859 until his death in the 1880s. However, Engelmann was also a practicing physician, meteorologist, mentor, and a mover and shaker in nineteenth century St. Louis. Our speaker, **Michael Long**, has long been fascinated with this important figure in the history of Missouri natural history and has been working on an authoritative biography of the man. Join us on Tuesday, 4 October, at 7:30 p.m. for our October general meeting to learn more about George Engelmann. As has become tradition, those who would like to meet the speaker and share dinner with us before the program are encouraged to meet at Powder Valley at 5:30 p.m.

May Bird Report

David Becher

The unsettled weather continued with violent thunderstorms and unseasonable cold early in the month. The second Saturday of May traditionally the date of Big Day and the North American Migration Count was particularly unpleasant cold damp and windy. Later in the month it warmed up to more normal temperatures, but the weather remained stormy. The Missouri River was in flood all month and water levels were high in many areas. Shorebird reports were limited in



Eared Grebe. Photo by Bill Rudden.

consequence. Land bird numbers were good to excellent with the species that arrived last month coming in good numbers. The birding in Tower Grove Park was as good as it has been in years.

May is not a big month for waterfowl but David & Mary Anne Marjamaa reported a female Hooded Merganser with 10 ducklings at Columbia Bottom on the 6th. A Gadwall that lingered at Columbia Bottom CA until at least the 14th was unusual.

On 5/29 Wally George reported this beautiful breeding plumage Eared Grebe in a flooded area along Stringtown Road in southern Monroe Co. This is a remarkable date for this western species. Unfortunately, it was not there the next day.

On the first Frank Holmes reported a Neotropic Cormorant at Horseshoe Lake in Granite City, Illinois but it was apparently not seen again. Phil Ware had a fly-by American Bittern at Clarence Cannon on the first and Connie Alwood and Chris Kirmaier had one on the 4th. The first Least Bittern report of the year was 5/29 Bryan Prather at Little Creve Coeur.

The Johnsons had a Yellow-crowned Night Heron in Forest Park on the first. Black-crowned Night Herons once the most common heron species in Saint Louis were again scarce this year, but birds were seen in Forest Park, at Horseshoe Lake and Columbia Bottom CA among other places. Other herons were present in good numbers at Columbia Bottom. Snowy Egrets and Little Blue Herons were both particularly common.

White-faced Ibis reports were unusually numerous for some early in the summer. Phil Ware reported

one at Clarence Cannon on the first. Two were seen at Frank Holten State Park in St. Clair Co. Illinois on the 7th and Lorrie Vit found two on Outlet Road in Monroe County on the 29th.

The only Black Vulture report was by Archie Keiper who had a one in southern Monroe County on the 30th. Ospreys were rare this spring but Don Hays found one at the ponds at Shaw Nature Reserve on the 4th and Josh Uffman reported one possibly the same in the same area on the 7th. There do not appear to have been any reports from REDA or Busch Wildlife this spring.

Mississippi Kite reports were scattered throughout the month. Despite a few early birds most do not appear to have arrived until later in the month. Pat Lueders had one at Castlewood State Park on the 5th. While on the 7th, Mike Brady reported six raptor species at Castlewood including two Mississippi Kites and three Broad-winged Hawks which showed evidence of preparing to nest

On the 26th the Thursday group was thrilled to find a beautiful Swainson's Hawk in Labadie Bottoms while looking for a Lark Sparrow. The bird perched on a couple of pole for scope views. This was a life bird of several members of the group.

Josh Uffman wins the prize for the yard bird of the month with a Sora in his backyard on the 8th. Frank Holmes reported the first Common Moorhen (or Common Gallinule as it will probably again be called by the time you read this) at Horseshoe Lake on 9th. Ken Thompson reported another at Columbia Bottoms CA on the 13th. This bird was found in the same general area by several observers during the month.

Avocet reports were scattered throughout the month. Bill Rowe reported a remarkable 26 at Columbia Bottom on the first. Dick Coles had two flying Avocets at Horseshoe Lake on the 14th and Wally George found another in Monroe Co. Illinois near Outlet Road on the 26th that remained until at least the 30th.

On the first Bill Rowe also had a single Wilson's Phalarope at Columbia Bottom. On the 4th Connie Alwood and Chris Kirmaier had another Wilson's Phalarope and a few Yellowlegs at Clarence Cannon. At B.K. Leech they had about 40

Dowitchers, two Semipalmated Sandpipers and a few Yellowlegs and Pectorals Sandpipers.

On May 20th during a brief interlude of low water at REDA David Becher found a mixed flock of shorebirds including Semipalmated Plovers and Semipalmated Sandpipers with a couple of Baird's Sandpipers and one Dunlin. The next day the Saturday group had a small flock of shorebirds at Columbia Bottom CA. It included a few Baird's Sandpipers and one White-rumped Sandpiper along with the usual Least and Semipalmated Sandpipers.

On the 22nd, Tom Bormann and Dave Rogles had a Ruddy Turnstone or two and some Dunlins at REDA as the water was rising again. Connie Alwood refound the Baird's and White-rumped at Columbia Bottom the same day.

On the 24th, Lorrie Vit had an Upland Sandpiper at the Monroe County Illinois sod farms. On the 25th Les Jenkins had 4 Black-necked Stilts at REDA and on the 30th Dave Rogles and Tom Bormann had two pairs at Columbia Bottom. Because of the high water the birds were not reliable in either area. On the 28th Peter Richardson reported two in southern Monroe County Illinois and considerable numbers were observed in the area over the next few days. Lorrie Vit and others had a flock of shorebirds along Levee Rd in Monroe Co on the 30th. It included a beautiful Black-bellied Plover and at least one White-rumped Sandpiper among a group of distant peeps.

The first Black Terns of the season were reported on the 13th at Horseshoe Lake by David Becher and Loy Barber. They were still present along with both Common and Forster's Terns there the next day. Jackie Chain reported additional Black Terns at REDA on the 14th. Frank Holmes reported that the Black and Common Terns at Horseshoe Lake had been joined by some Caspian Terns on the 15th. On the 20th, David Becher had Least, Common, Black, and Caspian Terns at REDA

On the 28th Josh Uffman found an amazing five Laughing Gulls at REDA. Fortunately for his peace of mind the Saturday group also found them independently and confirmed his observation. This is the largest group of this coastal species that I have ever heard of in the area. The Saturday group also saw an immature Bonaparte's Gull (very late

at this time of year) flying with them. There were also a variety of terns: Least, Black, Caspian, and Common in the area.

Cuckoos appear to be in low numbers this year. The first Yellow-billed Cuckoo reports were from Lost Valley on the 5th or 6th. After that they were seen and heard in relatively small numbers in most areas. I have not been able to confirm any Black-billed Cuckoo sightings this spring.

The Great Horned Owl pair in Tower Grove Park fledged three young this year at west end of the park. Another pair was observed perched on several occasions in the Cypress Circle area at the east end although there was no evidence of an attempt to nest. That makes a total of seven Great-Horned Owls in the park; maybe they will finally do something about the squirrel population.

The Empids appeared about on schedule this year. Nesting Willow Flycatchers seemed to be a little less common than usual. There was one singing on the Blue Grosbeak trail on the 14th and one at Two Pecan Pond at REDA was reliable later in the month. The first Least Flycatcher report was by Jack Cowan on the 5th in TGP. The first Acadian Flycatcher report was apparently by David Becher at Lost Valley on the 6th. The first Yellow-bellied flycatcher was seen on the 4th in TGP by Andrew Reago. This is a somewhat early ate for this species, but numbers seemed to higher than usual this year.

Alder Flycatchers were reported in unusual numbers. The first was found by Dick Coles on May 12th with the Thursday Group singing at Columbia Bottom. Unfortunately it was never really visible. The big movement was apparently on the 28th. Josh Uffman had two singing and seen at Columbia Bottom and the Saturday group had one singing and flying about at Riverwalk Park in Bridgeton. The Audubon Group reported additional ones at Blue Grosbeak trail.

Western Kingbirds continue to increase around the area. There is now apparently a large colony in the Bridgeton area. The first report was by Frank Holmes from Granite City, Illinois on the sixth. Al Smith reported multiple birds at several locations in the Bridgeton area of Saint Louis County on the 8th and on the 31st they reported four nest sites in the area.

Frank Holmes found a Scissor-tailed Flycatcher on Choteau Island on the 7th. It was not re-found to my knowledge. On the 30th Dave Rogles found a pair of Scissor-tailed Flycatchers at the intersection of I-64 and Highway N in the area that they have nested for the past few years.

The first Olive-sided Flycatcher was reported by Mike Brady on the 8th on the Chubb Trail portion of Castlewood. Jean Cook found one at TGP the next day and they were reported regularly thereafter.

Vireos of all species were seen in good numbers this spring. The first Philadelphia Vireo report was on the third by Jack Cowan in TGP. Douglas Ryan had another the next day in Clydesdale County Park.

A large Bank Swallow colony was observed near the gravel quarry in southern Monroe Co. Illinois. It was apparently first reported by Peter Richardson on the 28th.

Red-breasted Nuthatches were common and widespread in migration this spring. They were still being seen in Tower Grove Park as late as the 13th on the month at least. Marsh Wrens were heard repeatedly at REDA during the month. Loy Barber and David Becher were lucky to see one on the first, but the high water in the area made them nearly impossible to see thereafter.

After a slow start the thrush migration picked up in May. On the 4th Douglas Ryan reported multiple Gray-cheeked thrushes, a Veery, and Swainson's Thrushes in Clydesdale County Park (St. Louis Co.) The same day Andrew Reago reported Wood, Grey-cheeked and Hermit Thrush in Tower Grove Park. Veerys seemed more common than usual this spring with the peak of the migration around the 20th of the month. The Thursday group had a Hermit Thrush in TGP on May 12th which is within a day of two of the latest spring date for this species.

The spring warbler migration was outstanding this year with large numbers of migrant warblers seen in all of the usual places. Golden-winged Warblers, often hard to find in the spring, were seen in TGP on many days. Bob Bailey had a Bay-breasted Warbler on the first in Forest Park. Chris Brown reported another early Bay-breasted Warbler and Wilson's Warbler in Creve Coeur on the 2nd. The



Black-throated Blue Warbler. Photo by Bill Rudden.



Connecticut Warbler. Photo by Bill Rudden.

first Canada Warbler report was on the 7th by Jack Cowan in Tower Grove

Orange-crowned Warblers usually an early migrant were still being seen in Tower Grove Park by the Thursday group on the 12th. Mourning Warblers were in good numbers and were seen both early and late. One was reported by Pat Lueders on the 4th at the World Bird Sanctuary and Jack Cowan had on at Tower Grove on the fifth. Mike Brady reported a late migrant on the 29th from Castlewood State Park.

There were two male Black-throated Blue Warblers in the Gaddy Garden May 8th. They were seen by many happy birders, but were gone the next day. On the 20th there were two Connecticut

Warblers in the same area. The first one was found by Jim Ziebold. The presence of two birds led to some confusion with the birds been seen and heard in different places at the same time. The next day Lorrie VI reported two more singing on the Fallen Oak Trail at Busch Wildlife area and Andrew Reago reported another at the Gaddy Garden at TGP on the 25th. Mike Brady reported that there were as many as 12 Hooded Warblers on territory along the Merrimac River corridor this year; A remarkable number.

The only Clay-colored Sparrow report was on the 6th by Mike Thelan in Berkley Missouri. Josh Uffman reported 4-5 Lincoln's Sparrows at the Shaw Nature Reserve on the seventh.

Jim Malone had a Rose-breasted Grosbeak at his home on the first. This species was numerous in Tower Grove this month. David Becher reported Blue Grosbeaks from Little Creve Coeur on the third and the Blue Grosbeak Trail on the sixth.

The first Bobolink was a single male seen along Powers Road in Saint Charles Co. by David Becher on the 8th. Shawn Chubb had a small flock near St. Charles on the 11th. The Thursday group had another flock at Columbia Bottom CA on the 12th, which remained in the same area until at least the 20th allowing many to see them.

Bill Rowe had a late female Purple Finch at Columbia Bottom on the first. There were a few more scattered Pine Siskin reports from Charlene Malone on the 1st at her house and from John Hitzeman from Troy on the 6th.

The migration this spring was better than might have been expected despite some very unpleasant weather. The passerine migration was particularly good this year. Opportunities to observe shorebirds were limited by the lack of habitat, but a number of good observations were made. Overall it was a good spring for birders.



May Botany Report

Compiled by George Van Brunt

May 2, 2011—Marais Temps Claire Conservation Area, St. Charles Co., MO
(text/photos by Burton Noll).

Participants: Wayne Clark, Nancy Clark, Jeanne Clauson, Phil Koenig, Jeannie Moe, George Van Brunt, John Oliver, Father Jim Sullivan, Kathy Thiele, Steve Turner, and Burton Noll.

The weather was cool, 40-50 degrees F, overcast, damp, and threatening rain. The river levels were high and some of the roads were underwater. Because of water on the roads, we detoured to the headquarters maintenance area and walked the roads atop the dikes. MTC is a wetland managed for wildlife and hunting and the flora is primarily wetland, but with many introduced species. The old oxbow lakes are seasonally flooded for waterfowl.

Some of the species seen were *Packera globella* (butterweed); *Erigeron philadelphicus* (Philadelphia fleabane); *Lepidium campestre* (field cress, pepper grass) with hairy stems and clasping leaves; *Thlaspi arvense* (pennycress); a mystery *Persicaria* sp. (*amphibia?*); *Erysimum repandum* (spreading wallflower), yellow with a “marsh” smell; *Barbarea vulgaris* (yellow rocket); *Rumex altissima* (pale dock, tall dock); *Juncus* sp.; *Oenothera lacinata* (cut-leaved evening primrose) with toothed leaves and pale yellow flowers; *Chaerophyllum procumbens*, (wild chervil, native to U. S.), family Apiaceae. A plant with an interesting common name was the native *Valerianella radiata* (beaked corn salad). The name “corn salad” is derived from *V. oleria*, which grows as a weed in European wheat (*i. e.*, “corn”) fields.

We followed the canals, which had many water plants such as tall sedges, willow species, and *Cephalanthus occidentalis* (buttonbush). Old stalks of *Hibiscus lasiocarpus* (rose mallow), with brown seed cases were standing in the water, and seemed to reflect the mood of the day.

Some areas of the levees were carpeted with *Anemone canadensis* (white anemone) in profuse bloom. It was right where it belonged, as it is reportedly common along the Missouri and Mississippi rivers and “likes dikes”. This flower was featured on Botany Photo of the Day website, on June 23, 2011 (<http://www.botanicalgarden.ubc.ca/potd/2011/06/anemone-canadensis.php>). Viewers commented that it was a very weedy native plant and they wished they had not introduced it to their gardens.



Anemone canadense (white anemone), one of many on the dike.



Canal along the dike at Marais Temps Clair.



Hibiscus lasiocarpus (rose mallow). Last year's seed cases suspended over the canal.

Near the end of our walk we noticed *Matricaria discoidea*, (pineapple plant, disc mayweed). Native to western U. S, this plant had already reached Missouri in the mid 1800's (Steyermark 1963), and

has since found its way around the world. It is an inconspicuous plant and the little round yellow flower and frilly leaves are easily missed. It is often walked on and found the way we found it—by the smell!

May 9, 2011—Cuivre River State Park, Lincoln Co., MO (text/photos by John Oliver).

Time: 9:30–11:30 a.m.

Participants: Bruce Schuette, Ann Schuette, Rex Hill, Martha Hill, George Van Brunt, Kathy Thiele, Wayne Clark, Nancy Clark, Larry Morrison, Jack Harris, Pat Harris, Ed Kullman, Gladys Kullman, Jeannie Moe, Steve Turner, and John Oliver.

Cuivre River State Park is located in the Lincoln Hills region of northeast Missouri, an area that shows few effects from the glaciers that once covered all of northern Missouri. As a result, the park contains many natural features normally found in southern Missouri.

The name itself is interesting. In their “A History of the Pioneer Families of Missouri” (1876), William S. Bryan and Robert Rose seem to be the source of one version of the story: According to their account of the settlement of the area, Cuivre River received its name from Baron Georges Leopold Cuvier, the great French naturalist and paleontologist, who was among the first to do comparative anatomy and the classification of animals and fossils. When France acquired the territory west of the Mississippi River, Cuvier sent two of his students to America to get specimens of flora and fauna and to assess the climate and topography of the new acquisition. When the young men reached what is now the Lincoln County area, they found a lovely river which the French were calling *Rivière à Boeuf* (Buffalo River) because of the numerous bison roaming its banks. The two budding scientists decided a more impressive name for the lively stream would be *Cuvier* and this is what they used on the maps they were making. When the English-speaking settlers came, the spelling was changed to Cuivre and they anglicized the pronunciation to “Quiver”. Because the French word for copper is spelled “cuivre,” the American settlers mistakenly assumed the French intended the name to be the “Copper River.” Whether Baron Cuvier’s name should have been attached to the river or imagined copper deposits

inspired the name is lost in the noise of poorly-recorded verbal histories of the area and may never be resolved.

More pertinent to the floral objects of our visit is the unique geological and topographic nature of the park. Most of the park property is an island of wooded upland surrounded by flat farmland (as seen in aerial photos: <http://bit.ly/oIM7R0>). Its cherty ridges and sandstone outcrops had long resisted farming and were known collectively as the “Lincoln Hills.” Land in the Cuivre River area was acquired in the early 1930s for use as a federal recreation demonstration area. Local businessmen and civic leaders who wanted to bring a conservation project and jobs to the area convinced the National Park Service and the Civilian Conservation Corps to work on projects on the property. From 1936 to 1942, the Works Progress Administration and members of CCC Company 3771 began building roads, small bridges, a rock picnic shelter, and several group camps. Many of these structures are still in use and have been placed on the National Register of Historic Places. In 1946, the property was transferred to Missouri’s state park system.

One of the early visitors to the park was Julian Steyermark, who in 1951 described it this way:

“Bordering the Missouri River on the north and continuing north along the western side of the Mississippi River is hilly broken country with chert, sandstone, and limestone outcrops weathering into bluffs and ‘glades.’ This region may be considered botanically, if not geologically, as part of the Ozarks. In certain portions of it occur what may be considered ‘nunatak’ areas (*nunatak*: an insular hill or mountain surrounded by an ice sheet), which, having escaped being covered by the last Pleistocene ice sheets, have preserved their original flora.” [Steyermark, Julian A., 1951, *Botanical Areas in the Missouri Ozarks: Missouri Botanical Garden Bulletin*, v. 39, n.6(June), p. 126-135.] <http://biodiversitylibrary.org/page/7330149>

Today, visitors encounter a rich mosaic of tallgrass prairies interspersed with oaks and hickories. Denser forests stand on sheltered hillsides, with open, rocky, sun-drenched glades dotting the more exposed slopes. Scattered throughout the region are caves, sinkholes, springs and rocky creeks more typical of the Ozarks.

After assembling at the Park Office, we drove to Camp Derricotte, one of the CCC-constructed group camp facilities. Leaving the cars, we dropped into one of the rich valleys which drain into Big Sugar Creek. The area is in the northern part of the 1,872-acre Lincoln Hills Natural Area, one of the largest in the state park system. As we descended into the valley, most of the “usual suspects” of spring wildflowers were on display. We saw *Thalictrum thalictroides* (rue anemone), *Tradescantia virginiana* (Virginia spiderwort), *Claytonia virginica* (Eastern spring beauty), *Phlox divaricata* (woodland phlox), *Geranium maculatum* (spotted wild geranium), *Arisaema triphyllum* (Jack in the pulpit), and *Ranunculus hispidus* (hispid buttercup). In addition to these familiar woodland species, we also found a few which are less frequently seen, and these highlights were given particular attention by the appreciative group. Among these was a striking mass of *Delphinium tricorne* (dwarf larkspur) with particularly good color, and a few specimens of *Ophioglossum vulgatum* (southern adderstongue), an inconspicuous little fern and an example of the type of southern species Steyermark mentions as being found here in a northern “outpost” community. We noted *Aplectrum hyemale* (Adam and Eve orchid), just coming into bud and visited a large colony of *Cypripedium calceolus* var. *pubescens* (large yellow lady slipper), before returning to Camp Derricotte and our cars.

The second part of our walk started at the swimming beach on Lake Lincoln. Using a trail which circles the lake, we walked through a more open habitat, with access to some prairie and glade species not found in the earlier woodland walk. Here *Phlox pilosa* (downy phlox) replaced the *Phlox divaricata* (woodland phlox) seen earlier. *Taenidia integerrima* (yellow pimpernel) and *Zizia aurea* (golden Alexanders) growing together gave us an opportunity to compare two yellow-flowered members of the *Apiaceae* (carrot family). A continuous array of *Monarda bradburiana* (Bradbury’s beebalm), *Lithospermum canescens* (hoary puccoon), *Penstemon pallidus* (pale beardtongue), *Krigia biflora* (two-flower dwarf dandelion), *Castilleja coccinea* f. *coccinea* (scarlet Indian paintbrush), *Hypoxis hirsuta* (yellow star grass), and *Asclepias quadrifolia* (fourleaf milkweed) lined our path.

Cuivre River State Park is a treat to visit in any season. Its varied habitats offer many different types of flora and associated fauna to observe and enjoy. But preserving and maintaining the health of these diverse communities is neither accidental nor easy. I have visited this park many times over the course of 40 years or so, and during most of that time the stewardship of its forests and fields has been largely the responsibility of park naturalist Bruce Schuette. His dedication and hard work has resulted in the exemplary condition of the park we visit today. Each time I turn north on Lincoln Hills Road with its beautiful open woods and widely-spaced mature trees, I think back to the same drive the first time I visited it—choked with thick undergrowth all the way to the road. The view today begins to look like it must have in pre-settlement days when, by contemporary accounts, hunters could see deer a hundred to three hundred yards away through the woods. And each time I say to myself and whoever might be listening, “Thanks, Bruce.” Every Missourian should do the same.

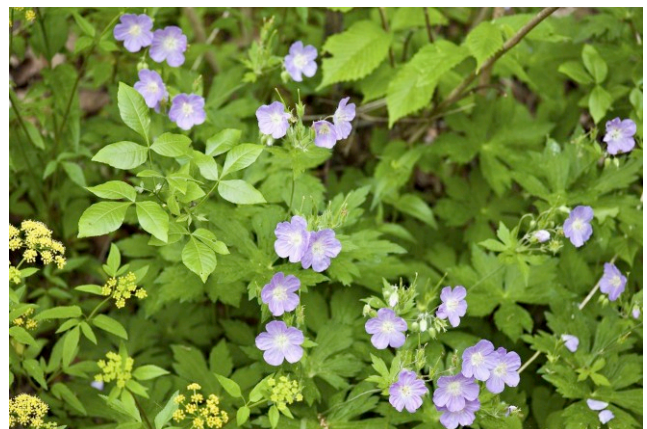
The complete list of plant species observed on this trip: *Achillea millefolium* (common yarrow), *Adiantum pedatum* (northern maidenhair fern), *Allium canadensis* (wild garlic), *Antennaria parlinii* (Parlin’s pussytoes), *Aplectrum hyemale* (Adam and Eve orchid), *Arisaema triphyllum* (Jack-in-the-pulpit), *Asclepias quadrifolia* (fourleaf milkweed), *Baptisia bracteata* var. *leucophaea* (longbract wild indigo), *Boechera laevigata* (smooth rockcress), *Boechera canadensis* (sicklepod), *Botrychium virginianum* (rattlesnake fern), *Castilleja coccinea* f. *coccinea* (scarlet Indian paintbrush), *Claytonia virginica* (Eastern spring beauty), *Comandra umbellata* (bastard toadflax), *Cypripedium calceolus* var. *pubescens* (large yellow lady slipper), *Delphinium tricorne* (dwarf larkspur), *Erigeron philadelphicus* (Philadelphia fleabane), *Erigeron pulchellus* (robin’s plantain), *Fragaria virginiana* (wild strawberry), *Galium aparine* (cleavers), *Geranium maculatum* (spotted wild geranium), *Hybanthus concolor* (eastern greenviolet), *Hypoxis hirsuta* (yellow star grass), *Krigia biflora* (two-flower dwarf dandelion), *Lithospermum canescens* (hoary puccoon), *Mertensia virginica* (Virginia bluebells), *Monarda bradburiana* (Bradbury’s beebalm), *Onoclea sensibilis* (sensitive fern), *Ophioglossum vulgatum* (southern adderstongue), *Ozmorhiza longistylis* (longstyle sweetroot), *Pedicularis canadensis* (Canadian



Ophioglossum vulgatum (southern adderstongue).



Cypripedium calceolus var. *pubescens* (large yellow lady slipper).



Geranium maculatum (spotted wild geranium).



Monarda bradburiana (Bradbury's beebalm).



Zizia aurea (golden alexanders).

lousewort), *Penstemon pallidus* (pale beardtongue), *Phlox divaricata* (woodland phlox), *Phlox pilosa* (downy phlox), *Podophyllum peltatum* (mayapple), *Polemonium reptans* (Jacob's ladder), *Potentilla simplex* (common cinquefoil), *Ranunculus hispidus* (hispid buttercup), *Ranunculus recurvatus* (hooked crowfoot), *Rubus flagellaris* (northern dewberry), *Sisyrinchium campestre* (prairie blue-eyed grass), *Taenidia integerrima* (yellow pimpernel), *Thalictrum thalictroides* (rue anemone), *Tradescantia virginiana* (Virginia spiderwort), *Trillium viride* (green trillium), *Triosteum aurantiacum* (orange-fruit horse-gentian), *Viola palmata* (early blue violet), *Viola sororia* (common blue violet), *Zizia aurea* (golden Alexanders).

May 16, 2011—Pickle Springs Natural Area, St. Genevieve Co., MO (text/photos by Jack Harris)

Time: 9:30 a.m.–1:40 p.m.

Conditions: Mostly sunny, 45–63° F., winds calm.

Participants: Bob Coffing, Wayne Clark, Nancy Clark, George Van Brunt, Layne Van Brunt, Jack Harris, Pat Harris, Jeanne Clauson, Kathy Thiele,

Rex Hill, Jon Yaffe, Ken and Peggy LeFarth, Larry Morrison, Burt Noll, and John Oliver.

Suppose one was asked to name their **Favorite** Missouri Natural Area. The Pickle Springs Natural Area would merit strong consideration by those who have visited many state natural areas. And suppose that all plants and animals were removed from this area. Exposed by erosion of an upper layer of cherty limestone soils, the geomorphology of arches, hoodoos, cliffs, box canyons, and domes carved in the five hundred thousand years old Lamotte sandstone is a visual attraction in its own right. To this complex add clear springs, waterfalls, and small white patches of sandy creek beds. Then populate that interesting surface with lichens, bryophytes, ferns, and a unique list of vascular plants ranging in size from the diminutive hornworts to the native *Pinus echinata* (short-leaf pine) and the local fauna. Clearly there is something there for natural history buffs of many persuasions. For a description of the Missouri Natural Area system see:

<http://mdc.mo.gov/discover-nature/places-go/natural-areas/about-natural-areas>

Accordingly, Rex Hill, Jon Yaffe, Bob Coffing, and Layne Van Brunt soon departed in various directions pursuing their individual interests. The remainder of the group proceeded in the more conventional mode of focusing on the unique flora—mostly along or near the well worn ‘Trail through Time’.

An eclectic recap of a few of the organisms noticed along the trail might begin with a few associates of the native vascular flora, i.e., the common lichens, e.g., *Cladina subtenuis* (reindeer moss), and *Cladonia furcata* (many-forked cladonia), a liverwort, e.g., *Anuera pinguis*, and various common mosses, e.g., *Atrichum angustatum*, and *Leucobryum glaucum*. The preceding lichens, mosses, and liverwort were identified by Carl Darigo.

Among the vascular plants along the trail or within a few meters of either side, six species of ferns were observed, e.g., *Botrychium virginianum* var. *virginianum* (rattlesnake fern), *Dryopteris marginalis* (marginal shield fern), *Asplenium platyneuron* (ebony spleenwort), *Polystichum acrostichoides* (Christmas fern), and *Polypodium polypodioides* var. *michauxium* (resurrection fern). This latter fern is considered to

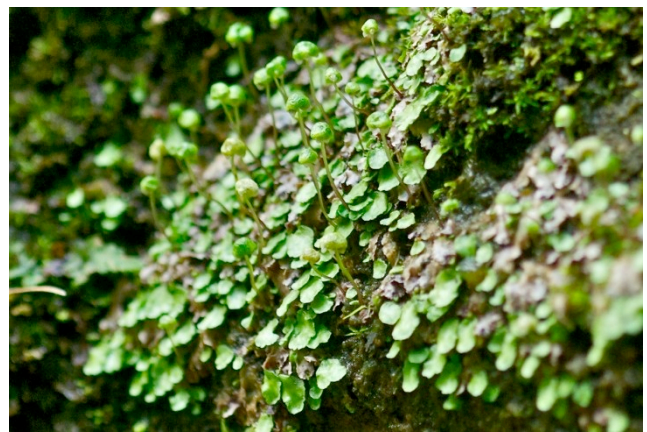
be an epiphyte, or air plant. It grows on surfaces such as large boulders (at Pickle Springs) and tree limbs (farther south, e.g., at Big Oak Tree State Park) where the climate provides sufficient moisture. During dry periods resurrection fern is known for its ability to dry out and curl up, appearing as desiccated, gray-brown and dead, but then recovering shape and color completely once the rains return. The plant has been taken on a space shuttle mission to watch its resurrection in zero gravity (Wikipedia). Also present was *Pteridium aquilinum* (bracken) fern, one of the most broadly geographically distributed species of vascular plants. And it may be one of the largest of fern species. George Yatskievych, in *Steyermark's Flora of Missouri*, Volume 1 (1999), cited one study that reported bracken fern rhizomes may grow to more than 390 meters long.

The 'Most Flamboyant Flower of the Day' prize would go to the *Rhododendron prinophyllum* (mountain azalea, rose azalea). The group was fortunate to observe an unusual white form which was found mixed among the more common showy pink population. Attention was paid to the *Vaccinium* spp. which are abundant in these sandstone habitat areas. Several plants of *Vaccinium stamineum* (highbush huckleberry) were in bloom and *Vaccinium arboreum* (farkleberry, sparkleberry) in heavy bud. Unfortunately on this date none of the *Vaccinium* were bearing fruit for our tasting—an incentive to improve our scheduling?

The 'Curiosity of the Day' prize would go to the *Geastrum* sp. (earthstar) fungus that was discovered nestled in the leaf litter under a highbush huckleberry. This small, distinctly shaped ball surrounded by 4–10 rays always prompts vigorous operation of camera shutters. Also to be found here are representatives of a small group of plants based on their special habitat needs and survival history. These plants are termed “relicts” because they are believed to be descendants of populations of these plants that were once common over a large area in this vicinity during the ice age. As the glaciers retreated over the millennia, taking their climate with them, these plants found haven in the cool, shady, moist micro habitats of the cliffs and box canyons of eroded sandstone. Meanwhile most of the populations of their nearest relatives have long since migrated to more suitable climates. Two that we saw, for example, were the *Mitchella*



L–R: Kathy Thiele, George Van Brunt, Pat Harris, Larry Morrison, John Oliver, Nancy Clark, Jeanne Clauson, Burt Noll, Peggy Lefarth at Sandstone Arches, Pickle Springs Natural Area, Ste. Genevieve Co.



A liverwort .



Rhododendron prinophyllum (mountain azalea—white form).

repens (partridge berry), with small white flowers which later derive bright red berries and *Goodyera pubescens* (rattlesnake plantain). The latter is an orchid with a basal rosette of dark green leaves distinguished by prominent white venation. In this season occasionally a remnant small spike with last season's brown seed pods flags the location. This plant seems to like the sandy areas along the cool,



Geastrum sp. (earthstar) fungus.

lower slopes of the shady valleys. Only one other orchid was seen that day. It was *Isotria verticillata* (large whorled pogonia). In both instances only the leaves of the orchid plants were seen.

Of ~250 total plants recorded for Pickle Springs Natural Area our field trip group observed only a small seasonal sample. A short list of those would include the following: a showy welcoming population of *Tradescantia virginiana* (Virginia spiderwort) along the entrance trail, followed by *Saxifraga virginianus* (early saxifrage), *Monarda bradburiana* (beebalm), *Krigia biflora* var. *biflora* (orange dwarf dandelion), *Heuchera richardsonii* (prairie alum root), *Nyssa sylvatica* (black gum), *Arisaema triphyllum* (Jack-in-the-pulpit), *Hypoxis hirsuta* (yellow star grass), *Oenothera linifolia* (three-leaved sundrops), *Antennaria parlinii* (plainleaf pussytoes), and *Rubus flagellaris* (northern dewberry).

Still undecided about a “favorite” natural area?

May 23, 2011—St. Joe State Park, St. Francois Co., MO (text/photos by Steve Turner)

Time: 9:30–11:30 a.m.

Conditions: Sunny to cloudy, mid 80s F

Participants: Wayne and Nancy Clark, Jeanne Clauson, Jack and Pat Harris, Larry Morrison, Burt Noll, John Oliver, Kathy Thiele, Steve Turner, George Van Brunt.

The group of eleven botanists assembled in the Harris Branch parking lot, on the south side of Pimville Road about 0.7 miles southeast of the junction with Highway 32. Primary goals for the day were *Nemastylis geminiflora* (prairie iris) and *Spigelia marilandica* (Indian pink), both of which have been found in the area in previous years,

though on somewhat different dates. The day's exploration encompassed two distinct areas: one south of Pimville Road and the other north of the road. Both were characterized by woods interspersed with glade, with the north side being somewhat more open.

Botanizing began in the south side wooded area, with several common species quickly identified, including *Salvia lyrata* (lyre-leafed sage), *Leucanthemum vulgare* (ox-eye daisy), *Potentilla simplex* (cinquefoil), *Rhus aromatica* (aromatic sumac, well past flowering and sporting its characteristic hairy red berries), *Swertia caroliniensis* (American columbo), *Sanicula odorata* (black snakeroot, its yellow anthers differentiating it from *S. canadensis*, which has white anthers), *Zizia aurea* (golden Alexanders), and *Taenidia integerrima* (yellow pimpernel). The last two are members of the Apiaceae and look similar, with umbellate inflorescences of tiny yellow flowers. They are easily distinguished from one another by the leaves, which are toothed in the case of *Zizia* and entire in the case of *Taenidia*. As we moved into a more open glade-like region, additional species became apparent, including *Allium canadense* (native wild onion), *Monarda bradburiana* (Bradbury's beebalm), *Calamintha arkansana* (calamint), *Eleocharis compressa* (flat-stemmed spike rush), *Parthenium integrifolium* (American quinine), *Asclepias viridis* (spider milkweed), *Verbena simplex* (narrow leaved vervain), *Rosa carolina* (pasture rose), *Phlox pilosa* (prairie phlox), *Penstemon pallidus* (pale beardtongue), *Echinacea simulata* (glade coneflower), *Tradescantia obiensis* (smooth spiderwort), and *Matelea decipiens* (climbing milkweed).

In a mostly open area adjacent to the Harris Branch stream we found one of the day's sought-after prizes: *Spigelia marilandica* (Indian pink). Although this attractive member of the Loganiaceae (Logania family) was just beginning to bloom, a few open flowers were found among the multitude of developing buds. Interestingly, the *Spigelia* genus is closely related to *Strychnos*, a member of which is the source of the deadly alkaloids strychnine and brucine. Plants in the *Spigelia* genus have been used as anthelmintics (anti-worm medicines) at least since the mid 18th century (Hoffmann and Kremers, Pharmaceutical review **1907**, Volume 25), though serious toxicities can arise at higher doses.

An interesting member of the Ranunculaceae well-represented in the area is the wax-leaved meadow rue, *Thalictrum revolutum*. This and some other members of the *Thalictrum* genus are dioecious, with male and female flowers borne on different individuals. The tall (up to 5') inflorescences are fairly showy, at least to aficionados of the genus. The male flowers are reminiscent of tiny hula skirts, with multiple stamens dangling freely downward. In many specimens the stamens are colorful, with yellow anthers and purple-tinged filaments. Missouri is home to three species of meadow rue, with *T. revolutum* (waxy meadow rue) being characterized by upper leaves which are compound but sessile, and leaflet surfaces which have glandular hairs. Kurz states that the leaves have a "bad odor" when crushed, though this character is obviously somewhat subjective. We did note that a crushed leaflet emitted a strong and characteristic odor, but one which we did not find particularly offensive. The leaflets also have edges which are rolled under, a characteristic which is quite noticeable under a hand lens.

A somewhat uncommon plant seen along the paved bicycle path running through the area was *Silene csereii* (smooth or glaucous catchfly). Although this species is introduced, it has apparently not (thus far) rampaged unchecked throughout Missouri's wild lands. St. Joe State Park is one of the few areas in the state where it can be observed in relative abundance, sometimes growing in the sandy, largely barren mine tailings at the adjacent Missouri Mines site. The plant has thickened, succulent-looking leaves, a conspicuous glaucous coating on most plant parts, and a smooth, inflated calyx behind small white flowers. At other points along the bike path were found examples of *Apocynum cannabinum* (dogbane), *Erigeron strigosus* (daisy fleabane), *Valerianella radiata* (corn salad), *Cruciata pedemontana* (an exotic bedstraw), *Potentilla recta* (rough-fruited cinquefoil), and *Physalis sp.* (ground cherry). The path margin was also abundantly populated with several weedy or invasive species, including *Melilotus officinale* (yellow sweet clover), *Plantago lanceolata* (English plantain), and *Medicago lupulina* (black medic).

Still continuing our search for *Nemastylis*, which to that point had not been located in flowering condition, we moved across the road into the northern section. Here we were able to find a



Silene csereii.



Onosmodium molle scorpioid inflorescence and exerted styles.

single flowering specimen of *Nemastylis geminiflora* (prairie iris); other individuals found in the area were past flowering and in fruit. At the edge of a wooded patch nearby was also found a very nice colony of *Onosmodium molle* (western false gromwell), which was in the early stages of flowering. This plant has prominently veined leaves, as well as strikingly scorpioid inflorescences which are characteristic of the Boraginaceae. The individual flowers have styles which are well exerted from the bud even prior to full development of the corolla. One basal rosette of *Liparis liliifolia* (large twayblade orchid) was found. Additional plants found in the area, among scattered old rubbish heaps and broken glass, included *Oenothera macrocarpa* (Missouri evening primrose), *Glandularia canadensis* (rose verbena), *Hedyotis longifolia* (long-leaved bluets), and *Hypoxis hirsuta* (yellow star grass). Some sizeable colonies of *Scutellaria parvula* (small skullcap) found in the area prompted a debate regarding the subspecies of these plants. On the basis of abundant glandular hairs appearing on all parts of a collected specimen, and according to the treatment

published in the original Steyermark work, this specimen clearly belonged to the *parvula* subspecies.

On an entomological note, predictions of a great cicada brood emergence appear to be accurate. We saw large numbers of the live insects (many of these sluggish and amenable to handling), as well as numerous molted exoskeletons, with a single plant sometimes carrying multiple casts. The insects were not yet singing.

We reached the end of our walk at the parking lot with impeccable timing, moments before rain began falling. Although St. Joe State Park is a highly disturbed area, it supports a surprisingly diverse array of botanical species, and is a worthy destination for time spent studying or just enjoying nature.

May 30, 2011—LaBarque Creek Conservation Area, Jefferson Co., MO (text by George Van Brunt)

Nineteen botanists assembled at the LaBarque Creek Conservation Area parking lot on a very warm, sunny Memorial Day. Accompanying Fr. Sullivan were Bob Coffing, Jack Harris, Pat Harris, Steve Turner, Wayne Clark, Nancy Clark, Alan Hopefl, Phil Koenig, Nels Holmberg, Kyle Baughman, Rick Gray, John Oliver, Cindy Gilberg, Joe Walker, Marla Stewart, Burt Noll, Susan Krupa, and George Van Brunt. We set off on the trail across the road from the parking lot, crossed the bridge, and continued on the trail through the forest. We stayed together for a while but eventually began to go off-trail in small groups to pursue our own interests. Various members visited a box canyon with a small stream and some small glades eventually returning to the parking lot on the trail through the forest. This sandstone watershed supports a very large diversity of species many of which were in bloom on this day.

In the forest, plants in bloom included *Sanicula odorata* (common black snakeroot), *Sanicula canadensis* (Canada black snakeroot), *Galium concinnum* (shining bedstraw), *Monarda bradburiana* (horsemint), *Asclepias quadrifolia* (fourleaf milkweed), *Sisyrinchium campestre* (blue-eyed grass), *Panicum bosci* (Bosc's panicgrass), *Krigia biflora* (false dandelion), *Cryptotaenia canadensis* (honestwort), *Matelea decipiens* (climbing milkweed), *Viola striata* (striped violet), and *Allium canadense* (wild onion).



Verbessina helianthoides (yellow crownbeard) with 13 ray florets. Photo by George Van Brunt.

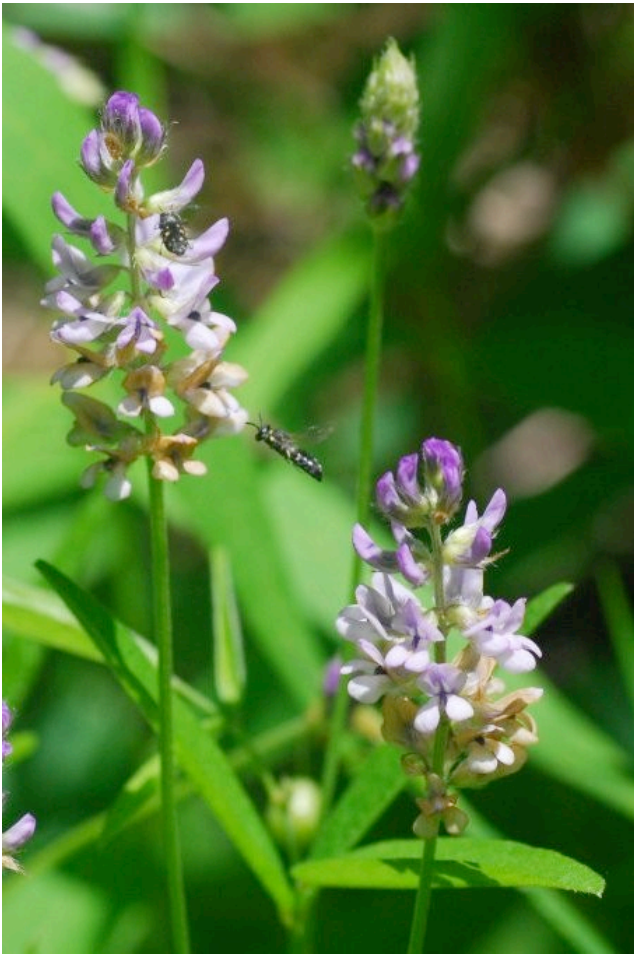
We found some *Verbessina* plants in bloom in an open, sunny area of the trail. Some discussion ensued about the identity of the species. *Verbessina alternifolia* (wingstem) and *V. helianthoides* look much alike but *V. helianthoides* has 8 to 15 ray florets per inflorescence while *V. alternifolia* has fewer, 2 to 8. Also, *V. helianthoides* flowers from May to October while *V. alternifolia* flowers from August to October. These facts allowed us to positively identify the plants we found as *V. helianthoides*.

We found one orchid, *Corallorhiza wisteriana* (coral root), in fruit. Others of the many species that we identified by their leaves and/or fruits were *Arisaema triphyllum* (Jack-in-the-pulpit), *Arisaema dracontium* (green dragon), *Galium circaezans* (wild licorice), *Passiflora lutea* (small passion-flower), *Aristolochia serpentaria* (Virginia snakeroot), *Silene stellata* (starry campion), and *Cynoglossum virginianum* (wild comfrey). Ferns included *Adiantum pedatum* (maidenhair fern), *Polystichum acrostichoides* (Christmas fern, with spores), *Botrychium virginianum* (rattlesnake fern, with spores), *Phegopteris hexagonoptera* (broad beech fern), *Cystopteris protrusa* (fragile fern, with spores), and *Asplenium platyneuron* (ebony spleenwort). In a small stream, Nels Holmberg pointed out *Glyceria striata* (fowl meadow grass), and *Carex rosea* (rosy sedge), both in bloom.

Plants in bloom on the glades included *Hedeoma hispida* (rough pennyroyal), *Triodanis perfoliata* (common Venus' looking glass), *Oenothera linifolia* (sundrops), *Coreopsis lanceolata* (tickseed coreopsis), *Erigeron strigosus* (daisy fleabane), *Phemeranthus*



Asclepias quadrifolia (whorled milkweed). Photo by Pat Harris.



Orbexilum pedunculatum (Samson's snakeroot). Photo by Steve Turner.

calycinus (large-flowered flower-of-an-hour), and *Orbexilum pedunculatum* (Sampson's snakeroot).

Worldwide, there are about 3000 species of cicadas. Only 7 of these are periodical cicadas, species in which the life cycle of the entire population is synchronized. All seven species are



Papilio troilus (spicebush swallowtail). Photo by Jack Harris.



Ichneumon wasp, held by Phil Koenig. Photo by Jack Harris.

found in eastern North America, the 17-year cicadas generally farther north than the 13-year cicadas. This is the year when our 13-year cicadas transformed into adults, reproduced, and died. Evidence of these 13-year periodical cicadas (*Magicalcicada* ssp.) was everywhere. Small holes from which the cicadas emerged from underground could be seen all along the trail. Presumably these holes were off-trail as well but were concealed in the leaf litter. Exoskeletons of the nymphs and living adults could be seen clinging to leaves and stems. Most evident of all, the loud “singing” of the males filled the woods with their haunting songs. We also observed many black snipe flies (family Rhagionidae) flying from plant to plant. They are an expected springtime phenomenon. Phil Koenig, WGNSS entomology co-chairman, brought his insect net and captured a few insects to show us. One insect (shown on the net) was *Papilio troilus* (spicebush swallowtail). In the early instars, this larva resembles a bird dropping, discouraging predators from eating it. In the last instar (shown), the larva resembles a snake head and even rears up to intimidate would-be predators. Phil also captured a female ichneumon wasp. The long, thin structure extending from its abdomen is the ovipositor. This parasitoid uses her ovipositor to probe deadwood, looking for beetle grubs in which to lay an egg. The larval wasp uses the grub as its home and food source, consuming the grub from the inside.



The Last Kite of the Season

Anne McCormack

I may have seen my last Mississippi Kite of the year September 3. My puppy [Chunk](#) and I visited [Emmenegger Nature Park](#) climbing the trail along the bluffs above the [Meramec River](#) and paused at one of the glades. Chunk investigated the scents along and under the limestone rocks. I scanned the wide valley below with my binoculars. The landscape is urban, with remnants of oak-hickory woods on the hills. Floating over the [former site of the Chrysler plant](#) a beautiful male Mississippi Kite sailed on the warm, still air. The open glade afforded me a rare view of the kite from above. Contrasting with the dark grey body, I could see



Mississippi Kite Shadow Flight. © George Thomas.



Flying kite. © MRHSfan.

the white head and [secondaries](#)—the flight feathers close to the body along the trailing edge of the wing. The creative images above are by [George Thomas](#) and [MRHSfan](#)—thanks for licensing your photos with [Creative Commons](#).

I see Mississippi Kites almost daily in my area, starting in early May. They can be hard to spot early in the season. They tend to be silent and avoid being conspicuous as soon as they begin nesting. A friend who has a nest nearby said she often sees them flying low—under the radar, so to speak—as they approach the nest.

By August, the young are in flight and I occasionally hear them call. It's a strange sound—imagine a flycatcher impersonating a Broad-winged Hawk's two-note whistle. Here's a link to a

recording by [Robin Carter](#) also Creative Commons.

Kites show up predictably at favorite perches around the neighborhood; always on dead snags atop mature trees. About 3 weeks ago I saw a group of 6 kites, including at least 2 juveniles, in a half-dead oak. Not far away, I could hear a 7th bird calling. Sometimes 2 or 3 will circle overhead. Are these local birds or the first migrants? I wish I knew.

When I first started birding seriously, in the early 90s, I saw my life Mississippi Kites in Webster Groves. Birders at that time said Webster was about as far north as they were found in summer, but now [they breed up into Iowa](#).

They are predominantly insect eaters, so they must head south in fall. Conventional wisdom says that all the kites will be gone from Missouri by the end of the first week of September, but curiously, the first are record of Mississippi Kite was in autumn, on September 22, 1956 [Birds of the St. Louis Area; Where and When to Find Them](#). Webster Groves Nature Study Society, 1995). They migrate through Texas, along the east coast of Mexico, through Central and northwestern South America. Their non-breeding range is Bolivia, western Brazil, Paraguay, and northern Argentina. See [this range map on the Cornell U website](#). Check out [this spectacular video of a flock of kites migrating through Soberanía National Park in Panama, taken by Dave Jackson in April, 2007](#).

Lectures at St. Louis Zoo

Submitted by Sandra Faneuff¹

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.

¹ Office Manager, Education Department, St. Louis Zoo.

Registration is required: call (314) 516-6203, or email hintonpa@umsl.edu.

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.academvofsciencestl.org or call (314) 533-8586.

SCIENCE SEMINAR SERIES

- Oct 5—*Plants as Medicines: From Obsolete to Leading Edge*, by Wendy Applequist, PhD.
- Nov 12—*Left Out in the Cold: The Story of the Barrow Global Climate Change Research Lab in Barrow, Alaska*, by Janet Baum, AIA.

CONSERVATION CONVERSATIONS

- Sep 22—*Grevy's Zebra Trust*, by Belinda Low, MSc.
- Oct 10—*Money, Myths & Man-Eaters: Researching Carnivore Ecology & Conflict in Tanzania's Ruaha Landscape*, by Amy Dickman, PhD.
- Oct 11—*Innovations in Conservation: Planning for Natural Diversity in Urban Environments*, by Angie Weber, MS.

Nature Classes at Meramec Campus, St. Louis Community College

Submitted by Nels Holmberg

Enrollment may be done at: http://classes.stlcc.edu/ClassSchedule/Term_Search.asp or call (314) 984-7500 and ask for Continuing Education.

- *Wildlife Gardens Near You* (Course: NATR 723): Sep 28 and Oct 1. Offered in cooperation with Webster Groves Nature Study Society. This class is a field trip exploring local wildlife gardens near Meramec Campus.
- *Missouri Ferns* (Course: NATR 723): Sep 20, Sep 27 and Oct 1. Offered in cooperation with the Missouri Native Plant Society. Instructor: George Yatskievych. The class will cover

Missouri's ferns: their ecology, taxonomy and beauty and how to identify them. Two lectures classes will include microscope work to learn taxonomy and identification. A field trip on October 1 will be to Hickory Canyon Natural Area.

- *Astronomy: Fall And Winter Night Skies* (Course: NATR 701): Sep 27, Oct 06 and Oct 7. Offered in cooperation with the St. Louis Astronomical Society.
- *Invasive Plant "Bio-Invaders"* (Course: NATR 709): Oct 25. Offered in cooperation with STL Audubon Society.
- *Edible Mushrooms Of Missouri* (Course: NATR 723): Oct 08. Offered in cooperation with Missouri Mycological Society. Class held at Babler St. Park.



Nature Walks at Emmenegger Park

Submitted by Anne McCormack

Walks meet at 10 a.m. at the trailhead shelter by the creek. Sponsored by Kirwood Parks and Recreation.

- Sep 17—*Autumn Butterflies*. Leader Anne McCormack.
- Oct 24—*Exploring Fall Wildflowers*. Leader George Yatskiyevych.
- Oct 19—*The Plants And Animals Of Our Forests*. Leader Dave Tylka.



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 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, September 19; 7:00 p.m. The first entomology meeting of the season will be held at the Butterfly House. It will be our traditional show-and-tell event so bring your specimens, photos and stories for an informal evening.

Monday, October 17; 7:00 p.m. The October meeting will be held at the Butterfly House. We will be processing insects collected at the LaBarque Creek Conservation Area survey this summer. Specimens will be relaxed and ready to pin. There are no skills required since we need people to work with the labels and record data as well as pin and identify. Come and learn the process of preparing museum quality voucher specimens.

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:

- Oct 11—*The Beast in the Garden* by David Baron
- Nov 8—*Last Child in the Woods* by Richard Louv

ORNITHOLOGY GROUP

Chair—David Becher

Saturday Bird Walks, Leader—David Becher. Walks begin at **8 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. If you have questions, contact David at (314) 576-1146 or

DavidBecher@msn.com

- Sep 24—Des Peres Park (Ballas & Manchester)

- Oct 1—Teal Pond at Riverlands
- Oct 8—Des Peres Park (Ballas and Manchester)
- Oct 15—Teal Pond at Riverlands
- Oct 22—Des Peres Park
- Oct 29—Teal Pond at Riverlands

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 as before. Please contact Jackie Chain at (314) 644-5998 or chainjac@sbcglobal.net if you have questions.

Note: The first Thursday of each month beginning at noon is when the City of St Louis schedules cleaning of Magnolia Avenue; parking on Magnolia will incur a hefty fine. You might want to park inside TGP on those dates or move your car if you plan to carpool from TGP on those Thursdays.

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.

Membership Dues Renewal

Paul Brockland

The WGNSS membership renewal deadline has now passed. The majority of our memberships expire at the end of August. You can check your membership status in the upper right corner of your address label. If it reads “Exp. 31-08-11” your membership is expired! If it reads “Exp. 31-12-99” you are an Honorary (Life) Member (and we hope you live that long!). Some memberships expire at the end of a month other than August; however, we recommend that you renew now anyway so you don’t forget.

It’s easy to renew. Complete the membership application on the last page of this newsletter, write a check payable to “WGNSS” (\$15 for *Nature Notes* by email; \$25 for delivery by 1st Class mail), and mail both to:

WGNSS
P.O. Box 190065
St. Louis, MO 63119-6065.

Thank you for your continued interest in WGNSS!

Editor's Corner

Ted C. MacRae

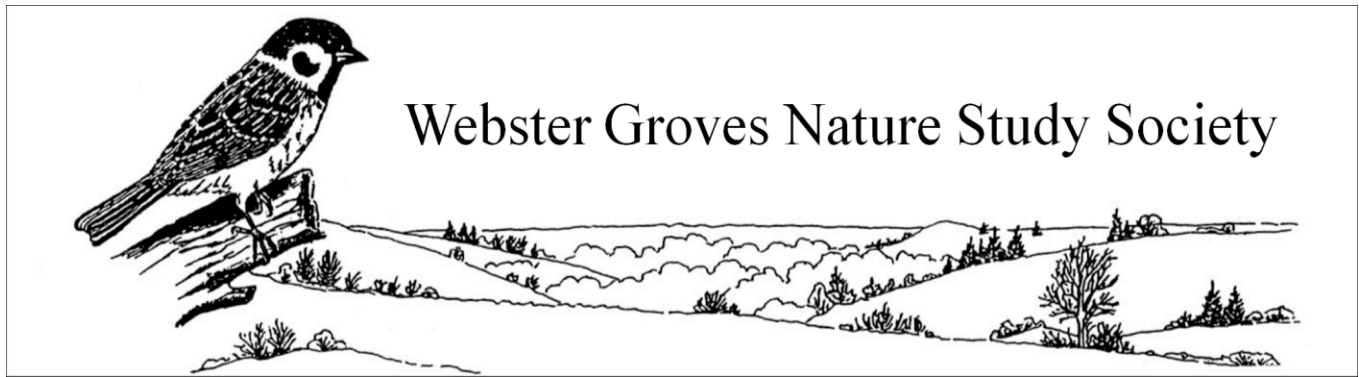
NATURE NOTES BY EMAIL

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/>). Contact Joe Whittington, Assistant Treasurer, at whittex@aol.com to convert your subscription.

CALL FOR SUBMISSIONS

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. 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!



August 10, 2011

John Hoke
Missouri Department of Natural Resources
Water Protection Program
P.O. Box 176
Jefferson City, MO 65102-0176

Dear Mr. Hoke;

The LaBarque Creek Watershed is a jewel in the crown of Missouri's natural beauty and heritage. Pristine waters with 44 fish species; sandstone and dolomite woodlands and glades; diverse flora and fauna; and sandstone formations carved through time are all features well worth preserving. All this bounty, so close to the expanding St. Louis metropolitan area, can be a great natural resource and a great challenge to protect.

The meeting of this challenge began through the great efforts of the Missouri Department of Conservation, citizens and residents in the LaBarque Creek watershed, Missouri Department of Natural Resources, Jefferson County government agencies, and outside interested nature and environmental groups. This coalition of disparate but interested parties came together and developed a masterpiece plan to protect and preserve the watershed under public and private ownership for the visitors of today and the future.

The members of the Webster Groves Nature Study Society (WGNSS) have enjoyed the wonders and beauty of this watershed. We have explored and documented the flora of the hills and valleys; we have listened to the songbirds in the spring; and have observed the beauty of the ebony jewelwing damselflies as they dance on the wing. We wish to pass this on to future nature lovers.

The designation of the LaBarque Creek Watershed as an Outstanding State Water Resource is a tribute to the efforts of today's generation and a promise of a pristine natural resource to future generations. To this end, the Webster Groves Nature Study Society, as a signatory to the LaBarque Creek Watershed Management plan, states their support of the designation, "Outstanding State Water Resource". With this designation, we hope for a continued cooperation among all stakeholders to protect and preserve the LaBarque Creek Watershed so that everyone can enjoy the great beauty of clean water weeping out of a fern covered sandstone wall.

Sincerely,

A handwritten signature in cursive script, appearing to read "Richard S. Thoma".

Richard S. Thoma - WGNSS President
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Kirkwood, MO 63122
314-541-4199

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