



Journal of the Webster Groves Nature Study Society, February 2009, Vol. 81, No. 1
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PRESIDENT'S CORNER – Ann Earley

WGNSS is starting the new year with a new editor for *Nature Notes*, with Malinda Slagle taking over these duties from Jim Adams. Malinda is a restoration ecologist at the Litzsinger Road Ecology Center, part of the Missouri Botanical Garden, where she continues the pollinator and plant research she initiated with her master's thesis in biology. Malinda has been a WGNSS member since 2005 and has been involved with the botany and entomology groups. We are very pleased that Malinda has agreed to be our new editor and welcome her to this job and to the Board. We also want to express our gratitude and appreciation to Jim Adams for his dedication in being our newsletter editor since 2005. WGNSS will continue to benefit from Jim's enthusiastic spirit, as he will retain his role as WGNSS historian and continue to serve as a Board member. Thank you, Jim, for your many contributions to *Nature Notes* and to WGNSS!

Due to the transition in editors and holiday schedules as year-end approached, the decision was made to forego publishing of a January, 2009 newsletter issue. So, this issue will be somewhat of a combined month, double issue with updates on late 2008 happenings as well as upcoming events. A holiday celebration with St. Louis Audubon was held on Sunday, December 7 at The Green Center. More than forty people attended, enjoying the good food, socializing, and holiday atmosphere. Members registered to win nature-related attendance prizes donated by St. Louis Audubon, Torrey Berger, Clarence Zacher, and Ann Earley. Thank you to everyone who attended and brought food to share, and special thanks to those members who assisted with set-up and clean-up duties.

Following recent custom, there was no **WGNSS general program meeting** in January. Mark your calendar for **Tuesday, February 17**. On that evening we will have a joint program meeting with St. Louis Audubon at the Creve Coeur Community Center (see details elsewhere in this newsletter). Also in February, WGNSS will have a display table at the Missouri Botanical Garden's fourth annual Backyard Bird Festival. This event will be held on Saturday, February 7 from 7:30 a.m. to 2 p.m. The WGNSS table will be staffed from 9 a.m. until 2 p.m. This is a great opportunity for adults and children of all ages and experience levels to learn more about birding and bird identification.

The Missouri Bird Conservation Initiative grant application for the Little Creve Coeur Water Management Project, involving installation of a solar-powered pump and well to
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provide supplemental water for the Little Creve Coeur Lake wetland mitigation area, was not approved, we learned in late December. In September the WGNSS Board had voted to support this project in partnership with St. Louis Audubon and St. Louis County Parks. The total grant proposal requests for 2009 were two times the funding amount available through the Missouri Department of Conservation, and 9 of 17 proposals were funded.

WGNSS Treasurer Mike Olson has announced he would like to retire from this position when his current term ends in June. As a result, **we are seeking a volunteer to serve as Treasurer** to succeed Mike beginning this summer. If you are interested in this office, know someone who might be interested, or would like more information about what is involved, please let me or Mike know.

Looking back on 2008, I want to thank all of the dedicated volunteers who have made our WGNSS activities possible during this past year. Whether you have presented a program, been a field trip leader or participant, served on the Board, helped with mailings, or committed your time and talents to WGNSS in other ways, your efforts are very much appreciated. Many thanks to you all, and best wishes to all WGNSS members and friends for a very Happy New Year!

FEBRUARY PROGRAM MEETING—Shawn Clubb

The WGNSS general membership meeting for February will be our annual joint meeting with the St. Louis Audubon Society. The program will feature a showing of the documentary film March of the Penguins and a discussion with Rick Smith, a keeper at Penguin and Puffin Coast in the Saint Louis Zoo.

The film focuses on the Emperor penguin, the largest species of penguin. Smith has more than 20 years of experience working with penguins, puffins and other species. He spent four summers working with National Audubon's Project Puffin. Rick also supported the Center for Conservation of the Humboldt Penguin in Punta San Juan, Peru.

The meeting will begin at **7 p.m. on Tuesday, February 17**, at the **Creve Coeur Community Center, 300 N. New Ballas Road**.

WEBSITE NEWS – Anne McCormack

WGNSS has added a page to our website giving dates of our birding, entomology, and botany events. Click on "upcoming events" on our website <www.wgnss.org> or go direct to <<http://sites.google.com/site/neverenoughnature/>>. We'll try to post cancellations due to inclement weather here as well. Of course, you can always call the site of the meeting, such as St. Louis County Library Headquarters, to see if our meeting/event has been cancelled due to inclement weather.

NEW MEMBERS

Please welcome Wayne Webster from Herculaneum and Judi Brooks from Des Peres.

OCTOBER BOTANY REPORT

October 6, 2008 Botany Field Trip Contributed by George Van Brunt

The WGNSS botanists were invited to explore the Ken and Peggy LeFarth property in St. Genevieve County, 160 acres of forested land on LaMotte sandstone. We explored one of the two glades that Ken and Peggy have been restoring. We also botanized a creekbed, and a small area of forest. On the glade, we found *Solidago nemoralis* (gray goldenrod), *Symphotrichum pilosum* (white heath aster), *Croton willdenowii* (rushfoil), *Hypericum hypericoides* (St. Andrew's cross), *Ambrosia bidentata* (toothed ragweed), *Hypericum gentianoides* (pineweed), *Erechtites hieracifolius* (fireweed), *Eupatorium serotinum* (late boneset), *Symphotrichum patens* (spreading aster), *Andropogon ternarius* (splitbeard bluestem), *Solidago rugosa* (rough-leaved goldenrod), *Rhus glabra* (smooth sumac), *Rhus copallinum* (winged sumac), *Rhus aromatica* (fragrant sumac), *Symphotrichum oblongifolium* (aromatic aster), *Trichostema dichotomum* (blue curls), *Symphotrichum lateriflorum* (white woodland aster), *Cunila origanoides* (dittany), *Vaccinium arboreum* (farkleberry), and *Vaccinium pallidum* (lowbush blueberry). One species of note was *Palafoxia callosa* (Spanish needles). This species has been reported from 11 Missouri counties, mostly in the southeastern part of the state, but not from St. Genevieve County. The LeFarths did scatter a mix of native Missouri plant seeds on this glade and that is very likely how these plants came to be growing here.

Along the creekbed and in the forest, we identified *Ludwigia alternifolia* (rattlebox), *Smilax glauca* (glaucous catbrier), *Bidens frondosa* (sticktight), *Nyssa sylvatica* (blackgum), *Commelina communis* (common dayflower), *Ulmus alata* (winged elm), *Solidago hispida* (hispid goldenrod), *Vaccinium stamineum* (deerberry), and *Tephrosia virginiana* (goat's-rue).

October 13, 2008 Botany Field Trip Contributed by George Van Brunt

Jerry Brown, member and frequent field trip participant, invited the WGNSS botanists to visit his 20 acre property in Lincoln County. Over the years, Jerry has converted much of his land, formerly pastureland, to native prairie. Eight botanists arrived to join Jerry on a cloudy, breezy, mild morning.

Some of the members recently completed a course, presented by George Yatskievych, Ph.D and Nels Holmberg, on the identification of the Asteraceae. We spent the first hour sitting in a circle in Jerry's garden keying out some plants that Jerry collected from his property. We used **Flora of Missouri** Volume 2 by George Yatskievych and keyed out *Solidago gigantea* (giant goldenrod), *Oligoneuron riddellii* (Riddell's goldenrod), *Solidago nemoralis* (gray goldenrod), *Solidago speciosa* (showy goldenrod), *Euthamia gymnospermoides* (viscid grass-leaved goldenrod), *Symphotrichum oblongifolium* (aromatic aster), *Symphotrichum lanceolatum* (tall white aster), *Symphotrichum ericoides* (wreath aster), and *Symphotrichum cordifolium* (heart-leaved aster). The activity was beneficial to all, helping us with the terminology involved in this sometimes difficult family.

At 11:00am, we decided to tour some of Jerry's garden and prairie habitat. In his garden, we found *Conoclinium coelestinum* (blue mist flower), *Symphotrichum pilosum* (white heath aster), *Symphotrichum novae-angliae* (New England aster), *Symphotrichum patens* (spreading aster), and *Physostegia virginiana* (obedient plant),

all blooming. A small bumblebee visiting *Gentiana andrewsii* (closed gentian) attracted considerable interest. The flowers of this plant are shaped like an unopened crocus. The bee struggled somewhat to part the petals at the apex of the flower it was trying to visit. Once the bee separated the petals enough to enter, it disappeared into the flower and the petals closed over it. After a minute or two, we observed movement inside the apex of the flower and soon the bee emerged, the flower again closing behind it. We watched and photographed the bee visiting several of this species' flowers. *Helenium autumnale* (yellow sneezeweed) was also in bloom. This species' common name comes from the practice of Native Americans and early European settlers of using the powdered, dried flowers as snuff. The snuff induces sneezing and was used to treat head diseases such as colds and sinusitis. Jerry also had *Symphyotrichum puniceum* (swamp aster) growing in his garden. This aster has been found naturally in only 7 Missouri counties, mostly in the eastern Ozark region in fens and spring-fed creeks.

After exploring the garden, we toured some of the prairie area. It was truly a tall grass prairie with many plants taller than we. Along the way, we identified *Salvia azurea* (blue sage), *Heliopsis helianthoides* (sunflower heliopsis), *Symphyotrichum praealtum* (willow-leaved aster), *Pyrrhopappus carolinianus* (pale false dandelion), *Gentiana puberulenta* (downy gentian), *Gentiana alba* (yellow gentian), and *Symphyotrichum turbinellum* (prairie aster) in bloom. A large population of *Heterotheca camporum* (prairie golden aster) was fruiting.

October 20, 2008 Botany Field Trip Contributed by George Van Brunt

Six WGNSS botanists returned to the Unimin Preserve to continue the survey that we began on September 22, 2008. We walked the sandstone/dirt road past the pond area that we explored last time until we reached several large connected fields. The tall grass that we saw on September 22 had been mown and removed, presumably for hay. Since the fields did not have much of interest remaining on them, we walked the perimeters where field met forest. Occasionally, we ventured into the forest when something interesting caught our attention. We found *Celtis tenuifolia* (dwarf hackberry), *Ilex decidua* (deciduous holly), *Ulmus alata* (winged elm), *Opuntia humifusa* (common prickly pear), *Quercus muhlenbergii* (chinquapin oak), *Acalypha monococca* (one-seeded mercury), *Panicum flexile* (slender panic grass), *Quercus rubra* (northern red oak), *Gleditsia triacanthos* (honey locust), *Symphyotrichum cordifolium* (heart-leaved aster), *Arnoglossum atriplicifolium* (Indian plantain), *Corylus americana* (hazelnut), *Quercus imbricaria* (shingle oak), *Cercis canadensis* (redbud), *Asimina triloba* (pawpaw), *Quercus velutina* (black oak), *Carya tomentosa* (mockernut hickory), and *Agrimonia parviflora* (swamp agrimony). Three ferns that we identified were *Botrychium dissectum* (grape fern), *Asplenium platyneuron* (ebony spleenwort), and *Polystichum acrostichoides* (Christmas fern).

Panicum flexile (slender panic grass) is one species of 28 in the genus *Panicum* in Missouri and more than 500 in the world. *Panicum* belongs to the tribe Paniceae in the family Poaceae. Although the common name, panic grass, makes one think of the behavior, the name is not related to the Greek god Pan, but comes from the Latin name for bread, panis. *Panicum* is the classical Latin name for Italian millet, *Setaria italica*. *Panicum flexile* has a wide range which includes most of the eastern half of North America. Another member of this genus, *Panicum virgatum* (switchgrass), has been

suggested as a crop from which ethanol fuel could be produced. It is a very adaptable and hardy plant which can grow in poor conditions unsuitable for food crop production.

October 27, 2008 Botany Field Trip Contributed by George Van Brunt

Ten botanists met at a new Katy Trail access, the Missouri Research Park Access, located between the Weldon Spring Access and the Daniel Boone Bridge (I-64/40) in St. Charles County. We assembled at the parking lot near the Duckett Creek Sanitary District Plant on a cloudy to partly cloudy, breezy morning with temperatures in the upper 30's to lower 40's. Growing next to the parking lot we found *Ratibida columnifera* (Mexican hat) in bloom. A map in George Yatskievych's *Flora of Missouri* Volume 2 shows Mexican hat in 13 widely scattered Missouri counties including Lincoln and St. Louis, but not St. Charles. The hat shape of the flower is produced by a cylindrical receptacle which bears one ring of ray flowers at the bottom (the brim of the hat) and disk flowers covering the rest of the receptacle (the crown of the hat). Other species that we found near the parking lot included *Viola sororia* (common violet) and *Persicaria longiseta* (bristly lady's thumb) in flower, and *Carya texana* (black hickory), *Perilla frutescens* (beefsteak plant), *Penthorum sedoides* (ditch stonecrop), and *Mimulus alatus* (winged monkey-flower) in fruit.

A three fourths mile long paved trail connects the parking lot with the Katy Trail. Along this trail we found *Symphyotrichum cordifolium* (heart-leaved aster), *Rudbeckia triloba* (brown-eyed Susan), *Symphyotrichum lanceolatum* (tall white aster), *Persicaria punctata* (dotted smartweed), *Polymnia canadensis* (leaf-cup), *Campanula americana* (tall bellflower), and *Scrophularia marilandica* (late figwort) in bloom.

We walked east on the Katy Trail to the Daniel Boone Bridge and then returned the same way. Species in bloom included *Capsella bursa-pastoris* (shepherd's purse), *Chamaecrista fasciculata* (partridge pea), and *Melilotus albus* (white sweet clover). The persimmon trees (*Diospyros virginiana*) were loaded with not-yet-quite-ripe fruit. We spent some time inspecting and dissecting (with our fingers) the fruits of *Staphylea trifolia* (bladdernut) and *Passiflora incarnata* (large purple passion flower). The fruit of bladdernut is an inflated capsule consisting of 3 loculi, each containing one brown, hard seed. *Passiflora incarnata*, a native Missouri species, is found mainly in southeastern and southwestern Missouri and a few other counties south of the Missouri River. North of the Missouri River it has only been reported in St. Charles County. It is a relative of the commercially grown passionfruit, *Passiflora edulis*, a native of South America. The *Passiflora incarnata* fruit is a berry with a thin rind and a papery interior filled with arillate seeds, of which the arils are edible, fragrant and sweet when ripe, but hardly worth the trouble. An aril is a specialized outgrowth from the funiculus or hilum (the umbilicus of the seed). This term may also be applied to any fleshy thickening of the seed coat. The aril is a "false fruit" because it is not produced from the ovary; it is produced by many species of flowering plants and even some members of the Pinaceae. An example is the red fleshy aril of *Taxus* (yew) which is attractive to animals which eat and disperse the seeds.

NOVEMBER BOTANY REPORT

November 3, 2008 Botany Field Trip Contributed by Jack Harris

On a bright, sunny, fall day, eight (8) WGNSS botany aficionados (Fr. Sullivan, George Van Brunt, John Oliver, Nels Holmberg, Wayne & Nancy Clark, & Jack & Pat Harris) were joined by our hosts Ken & Peggy Lefarth as we explored glade-east on the Lefarth property in Ste. Genevieve County. On the first trip to this property, we had explored glade-west. These informal glade designations merely describe two areas in which the Lefarths are conducting native habitat restoration operations, one on the east facing slope and one on the west facing slope, in an almost mirror image, where each shallow slope extends from just below the ridge top to minor drainage below. Both glades are characterized by shallow soils with outcrops of LaMotte sandstone. The small creeks at the foot of each slope are in the early stages of shaping and sporadic carving of the sandstone into interesting shapes such as cuts, bluffs and various exposures, which in turn provide small niches for sandstone loving plant species.

A representative sample of the species noted during the trip would include the following: *Antennaria parlinii* (plainleaf pussytoes), *Carex glaucoidea* (blue sedge), *Carex crinita* (fringed sedge), *Cephalanthus occidentalis* (buttonbush), *Cunila origanoides* (dittany), *Dryopteris marginalis* (marginal shield fern), *Hydrangea arborescens* (wild hydrangea), *Lechea mucronata* (hairy pinweed), *Lechea tenuifolia* (narrow-leaved pinweed), *Ludwigia alternifolia* (seedbox), *Pteridium aquilinum* (bracken fern), *Andropogon gyrans* (Elliott's broomsedge), *Aristida purpurascens* var. *purpurescens* (arrowfeather), *Smilax glauca* (catbrier), *Andropogon ternarius* var. *ternarius* (splitbeard bluestem), *Mitchella repens* (partridge berry), *Osmunda regalis* var. *spectabilis* (royal fern), *Luzula campestris* var. *bulbosa* (wood rush), *Rhus aromatica* (fragrant sumac), *Vaccinium arboreum* (farkleberry), and *Viburnum rufidulum* (southern blackhaw). Conspicuous in their quantity were the fruits of the *Opuntia humifusa* (eastern prickly pear cactus), *Diospyros virginiana* (persimmon), and *Carya cordiformis* (bitternut hickory). A small colony of *Selaginella rupestris* (rock spikemoss) was found nested in a clump of mosses. This small non-flowering genus is easily overlooked and is a member of a group of plants referred to as "resurrection plants". They can dry up during droughty periods then rehydrate and spring to life with the return of moisture.

And while we were expecting to be entertained during our travels by a blaze of fall colors on the foliage in this area of nearly ubiquitous oak-hickory-pine forests, we found that the impact of the very brief cold spell had preceded us and large expanses of the oak and hickory leaves were of a monotone brown. Nevertheless this view was punctuated by scattered brilliant bursts of color from other species.

November 10, 2008 Botany Field Trip Contributed by Wayne Clark
Katy Trail – Missouri Research Park Access, St. Charles County.

Eight botanists assembled for a field trip to explore the Katy Trail west of the access point. The Trail was explored to the east two weeks previously on October 27, 2008. Noted along the access trail was *Solidago ulmifolia* (elm-leaved goldenrod) with leaves that had turned red and *Verbesina virginica* (white crownbeard). The overnight temperature was below freezing, but the conditions were not right for the *V. virginica* to produce frost flowers.

The Trail runs along a bluff except where side streams are entering the river. Soon after entering the trail we identified *Sicyos angulatus* (bur cucumber), *Polymnia canadensis* (pale-flowered leafcup), *Ampelopsis cordata* (raccoon grape), the invasives *Lonicera maackii* (bush honeysuckle) and *Alliaria petiolata* (garlic mustard), *Equisetum hymale* (scouring rush), *Elymus hystrix* (bottlebrush grass), *Chasmanthium latifolium* (river oats), *Verbascum thapsus* (mullein). There were very few first year plants of *V. thapsus* relative to the expired second year growth of this biennial plant. Continuing on there was *Smallanthus uvedalius* (bearsfoot), *Platanus occidentalis* (sycamore) with shaggy bark, *Ageratina altissima* (white snakeroot), and *Campanula americana* (tall bellflower) in bloom.

The westernmost point of our walk was the side trail into the Weldon Spring Hollow Natural Area. The side trail connected to the Lewis and Clark Trail. Along the way there was *Aplectrum hyemale* (Adam and Eve orchid), and an unidentified tree hosting four vines, *Ampelopsis cordata* (raccoon grape), *Parthenocissus quinquefolia* (Virginia creeper), *Toxicodendron radicans* (poison ivy), and *Vitis sp* (grape). At the Lewis and Clark Trail, we turned left in the Clark direction (west) and proceeded to a dry stream bed. Along the banks were *Botrychium dissectum* f. *obliquum* (cut-leaf grape fern), *Polystichum acrostichoides* (Christmas fern), *Gymnocladus dioica* (Kentucky coffee tree), *Asarum canadense* (wild ginger), *Symphyotrichum cordifolium* (blue wood aster), *Adiantum pedatum* (maidenhair fern), *Hydrangea arborescens* (American hydrangea), *Solidago flexicaulis* (broadleaf goldenrod), and *Asplenium platyneuron* (ebony spleenwort). This was essentially the end of the data gathering of the field trip and we returned to the Katy Trail in the Lewis direction.

November 17, 2008 Botany Field Trip Contributed by Jeannie A. Moe

Nine botanists convened for a brisk, 30 - 40 degree, winter walk through Lower Meramec County Park. The *Taxodium distichum* (bald cypress) plants in the parking lot were living up to their name and shedding their needles. Two Aster species were identified: *Symphyotrichum ontarione* (*Aster ontarionis*) (Ontario aster) and *Symphyotrichum lanceolatum* (*Aster simplex*) (tall white aster or paniced aster). The *lanceolatum* species was still in flower. Father Sullivan pointed out that the Ontario Aster always has small football-shaped leaves. *Conoclinium coelestinum* (*Eupatorium coelestinum*) (mist-flower or wild ageratum), was identified in fruit.

With all the rain this year many trees and vines were heavily burdened with fruits and very beautiful. Many *Ilex decidua*, (deciduous holly) trees were covered with bright red fruits. The second most attractive plant was the *Smilax hispida* (catbrier) covered with many circular clusters of black fruit on their vines. Even *Euonymus hederaceus* (wintercreeper) had attractive fruits that looked similar in structure to its relative wahoo (*Euonymus atropurpureus*). Many *Toxicodendron radicans* (poison ivy) vines had white fruits on them. *Carya cordiformis* (bitternut hickory) had hickory nuts on it. *Cephalanthus occidentalis* (button bush) had a few fruits. *Symphoricarpos orbiculatus* (coralberry) had many attractive clusters of fruit.

Celtis laevigata (sugarberry) and *Celtis occidentalis* (hackberry) were in fruit. Father Sullivan pointed out that hackberry is a larger tree than sugarberry and has more warts on its bark. The leaves of both species of Hackberries are asymmetrical at the base. The

leaves of *Celtis occidentalis* are coarsely toothed along the edges and the leaves of *Celtis laevigata* have fewer teeth.

A few plants were identified from their leaves including *Duchesnea indica* (Indian strawberry), and *Ulmus americana* (American elm). There were a few “tests” including winter twig identification of the *Platanus occidentalis* (sycamore). *Lysimachia nummularia* (moneywort) and *Rubus trivialis* (southern dewberry) were identified by their leaves. *Sida spinosa* (prickly sida) and *Teucrium canadense* (germander) were identified by their fruits. *Rorippa sp.* was identified to genus level by its bratwurst shaped fruits, but no one wanted to brave identifying it to species.

Wayne Clark identified two species of goldenrod: *Solidago altissima* (tall goldenrod) in fruit and *Solidago gigantea* (late goldenrod) in bloom.

At the Meramec River the only green on the slope was *Lonicera maackii* (bush honeysuckle).

Animals included mourning doves, cardinals and a midland brown snake.

November 24, 2008 Botany Field Trip Contributed by George Van Brunt

Six botanists met at the Mallard Lake Parking area in Creve Coeur County Park, St. Louis County. Our original intent was to walk the circumference of Mallard Lake, but cloudy, very windy conditions caused us to change our plans. We decided to drive to Creve Coeur Lake and walk south on the paved trail starting at Dripping Springs. We botanized the paved trail and continued on the unpaved pedestrian-only trail. The bluffs along the way sheltered us from the wind, allowing us to concentrate on plants instead of discomfort. We returned the same way.

We found one species still flowering, *Symphyotrichum ontarione* (Ontario aster). We found green, winter leaves of *Asarum canadense* (wild ginger), *Hydrophyllum sp.* (waterleaf), *Carex albursina* (white bear sedge), *Hackelia virginiana* (stickseed), *Phlox divaricata* (wild sweet William), *Polymnia canadensis* (leaf-cup), and *Sonchus asper* (spiny sow thistle). Typically, these winter leaves were low to the ground where they are warmer and protected from the wind. Plants in fruit included *Symphyotrichum lateriflorum* (white woodland aster), *Toxicodendron radicans* (poison ivy), *Verbena urticifolia* (white vervain), *Ageratina altissima* (white snakeroot), *Campanula americana* (tall bellflower), *Solidago ulmifolia* (elm-leaved goldenrod), *Symphoricarpos orbiculatus* (coral-berry), *Elymus hystrix* (bottlebrush grass), *Cornus drummondii* (roughleaf dogwood), and *Smilax tamnoides* (bristly greenbrier). We identified two members of the elm family, *Celtis laevigata* (sugarberry) and *Celtis occidentalis* (hackberry). We saw *Sassafras albidum* (sassafras) with its large greenish buds and *Asimina triloba* (pawpaw) with its long paintbrush-like buds. We identified *Quercus macrocarpa* (bur oak) by its still-green leaves and stipules near the terminal buds. Stipules are leaf-like appendages, in this case, small, long, and narrow.

DECEMBER BIRD REPORT--Jim Ziebol & Yvonne Homeyer

Sightings: Highlights of a SLAS trip to Riverlands, led by Mike Thelen on 12/13, included 170 swans, 12 Cackling Geese, and 2 Bonaparte's Gulls. High counts of swans were 336 Trumpeters, plus 9 Tundra, at Riverlands on 12/14 (D Rogles). On 12/7, Dan Kassebaum and Mark Seiffert observed a Sandhill Crane near CL. Charlene Malone found 6 Black Ducks and 2 female Black Scoters at Riverlands on 12/20. On 12/14, Clarence Zacher visited FP and found Wood Ducks, a Cackling Goose, and 5 Song Sparrows. The best gull of the month was a first-winter Glaucous-winged Gull, first found at the Borrow Pit, near HL, by Bill Rudden on 12/6. The Saturday WGNSS Group visited HL on 12/13 and re-found the Glaucous-winged Gull; they also saw Glaucous, Lesser Black-backed, and several Bonaparte's Gulls (D Becher). Other gulls reported at Riverlands through the first week of January included 2 Laughing Gulls, 3 Iceland Gulls (2 adults and first-winter), 4 Lesser Black-backed Gulls of various ages, 2 Glaucous Gulls (one adult and one first-winter), and several Thayer's Gulls (DK, FH, B Rudden, D Becher, J&CM, JU, D Rogles).

Jim Ziebol observed 6 Cooper's Hawks on 12/6 - 3 at HL, 1 over East St. Louis, 1 in St. Louis City, and 1 in Shrewsbury. A Merlin was located in Carondelet Park on 12/11 (B Rudden) and another was seen at the Algonquin Country Club in Glendale on 12/24. This bird was last seen at the country club on 12/29 by Rose Ann Bodman and Jackie Chain. They also observed there an unusual Robin which was all white with black streaks. Kraig Paradise reported a Short-eared Owl at CBCA on 12/18 and 12/19. On 12/4, the Thursday Group found the E. Screech Owl at Sugar Creek Nursery; they also found the Allen's Hummingbird at the home of Lanny Chambers in Fenton. Dave Haenni visited SNR on 12/4, where he located Red-breasted Nuthatch, Brown Creeper, and both kinglets. Jeff Blunt joined Dave Haenni on BCA on 12/7, where they saw E. Phoebe, Hermit Thrush, Brown Creeper, and both kinglets. The Saturday Group, led by David Becher, re-found a Northern Shrike at CBCA on 12/6. Another Northern Shrike, originally found by Joe Eades on Blue Grosbeak Trail, was re-found on 12/30 by David Becher, and was last seen on 1/2/09 by Kathy Thiele.

Sherry McCowan reported a small flock of American Tree Sparrows in FP on 12/10. Bill Rudden photographed a small flock of Gambel's White-crowned Sparrows near HL on 12/11; these birds are considered casual in western Illinois. On 12/24, David Becher found 2 mixed flocks of Lapland Longspurs and Horned Larks in St. Charles County. A Spotted Towhee, first seen at HL on 12/15 by Frank Holmes, was reported on the Collinsville Circle Christmas Count on 12/20, and was still being seen there at the beginning of January. By 12/14, Great-tailed Grackles had returned to their two wintering locations - Church & Dwyer Roads in St. Charles County and Missouri Bottom Road in St. Louis County.

Backyard Birds: A Common Redpoll on 12/29 was yard bird #141 for Margy Terpstra at her Kirkwood home. Margy was able to photograph it before it flew; she did not see it again. Other good birds for Margy's yard in December included Lincoln's Sparrow, Hairy Woodpecker, and Cooper's Hawk. On 12/4, Gail Ahumada observed a Cooper's

Hawk eating a Rock Pigeon in St. Louis County. Mark Paradise saw a female Purple Finch and an Oregon Junco in his yard on 12/15. Another Oregon Junco, a male, was seen at the home of Jim Ziebol on 12/16. Sherry McCowan observed an adult Bald Eagle flying over her Soulard home on 12/19. A Yellow-bellied Sapsucker remained in Clarence Zacher's yard from 12/15 to 12/31. Rose Ann Bodman

Contributors: Connie Alwood, David Becher, Torrey Berger, Rose Ann Bodman, Tom Bormann, Jackie Chain, Joe Eades, Frank Holmes, Les Jenkins, Dan Kassebaum, Chris Kirmaier, Pat Lueders, Charlene & Jim Malone, Anne McCormack, Sherry McCowan, Keith McMullen, Kraig Paradise, Mick Richardson, David Rogles, Bill Rudden, Mark Seiffert, John Solodar, Mike Thelen, Josh Uffman, Clarence Zacher, Jim Ziebol.

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

FALL 2008 ENTOMOLOGY SPEAKERS-- Richard S. Thoma

The entomology group had a great series of speakers in the fall of 2008. In addition to the annual Show and Tell meeting, we had talks by Nicole Miller, the 2008 Mickey Scudder scholarship winner and Ed Spevak, curator of invertebrates from the St. Louis Zoo. A short review of each presentation follows:

The fall season for the WGNSS entomology group started with our annual "Show and Tell Night". This was the first entomology meeting held at the home of the group's chairman. For this meeting there was a large crowd filling every seat in the house. There was lots to see this evening for it seemed like almost everyone had something to show. Several people brought mounted insects from their summer collecting expeditions. George Diehl brought a nice selection of long-horned beetles and bees he collected in Missouri for help with identification. In place of a projector and screen, a computer was connected to a large screen television and used for powerpoint slides. Pat Harris showed beautiful pictures of butterflies, bees and beetles, many nectaring at some of Missouri's most spectacular flowers. The botanists at the meeting had as much fun identifying the flowers as the entomologists did identifying the insects. In addition, the group had the opportunity to help Bruce Stinchcomb, a member of the Eastern Missouri Paleontology Society identify fossil insects for a book he is writing. Much of the evening was spent catching up on what everyone had done during the summer. A great time was had by all.

In October, the entomology group met at the Busch Wildlife Conservation Area visitor's center for a talk from Nicole Miller, the 2008 winner of the Mickey Scudder scholarship offered by WGNSS. The title of her talk was "Plant-Pollinator Interactions and Endemism in a Glade System". The unique part of Nicole's study was to compare the pollinators that are attracted to glade endemic flowers, to the pollinators that visit a

related generalist plant species. One of the glade endemic species studied was *Echinacea paradoxa* (Bush's Purple Coneflower) a rare flower found on south-central Missouri limestone glades. Nicole collected and identified insects pollinating *E. paradoxa* and compared these species to those attracted to *Echinacea pallida* (Pale Purple Coneflower), a common roadside and prairie flower. A specific goal of the study was to determine why one species of coneflower is common and the other rare. Hundreds of insects, primarily bees and butterflies were collected for this project. She brought many of these insects for us to see at the meeting. At the time of the meeting, Nicole was still in the process of getting many of these insects identified and correlating all the data.

Our November meeting took place at the St. Louis Zoo. For the first part of the evening, Ed Spevak, curator of invertebrates gave the entomology group a behind the scenes tour of the zoo's Insectarium. We saw cages and cages filled with insects of all varieties. Most are spectacular examples found from around the world. One cage contained katydids over six inches long. Another contained hundreds of pupae waiting for the adult butterflies to emerge. When they do appear the butterflies are released into the nearby flight greenhouse for all to see. Many insect species must be kept in colonies containing all life stages so that there is enough for the public displays. Ed also showed us two endangered species, the Partula Snail (*Partula nodosa*) and the American Burying Beetle (*Nicrophorus americanus*) both of which the zoo is successfully breeding. The St. Louis Zoo is one of the major organizations actively preserving these two species. After the tour, Ed also gave a talk about a new zoo project called "Native Pollinators and the Native Pollinator Initiative". There is a great deal of concern that pesticides, loss of habitat and competition from honeybees has caused native bee populations to decline. With over 4000 species in the U.S., native bees are essential for pollinating our crops, and maintaining plant communities that provide food and shelter for other animals.

Entomology talks during the winter and spring of 2009 look to be just as exciting. Two talks have been lined up for the winter and spring of 2009. The first, in January, will be on "Rare Stream Edge and Wetland Butterflies of Southeastern Missouri" presented by Phil Koenig. Phil is very interested in finding and understanding those butterflies considered species of concern within Missouri. In February, James Trager, naturalist at the Missouri Botanical Garden Shaw Arboretum will speak about the work he is doing to prepare a "Field Guide to Missouri Ants". If you have a desire to learn about something out of the ordinary, consider attending one of the WGNSS entomology talks. All are welcome.

****COOL** readings for native plant aficionados on an icy winter's day**

If you are not a subscriber to "Missouri Natural Areas Newsletter", try a sample by visiting << <http://mdc4.mdc.mo.gov/Documents/19076.pdf> >>. Articles about Missouri's program status and the efforts to identify, protect and sustain our highest quality landscapes and their flora and fauna are written by the experts of our time. This is a great source to select sites for visits to see our most distinctive, colorful and diverse native Missouri flora.

To subscribe to the newsletter go to: << <http://lists.mo.gov/mailman/listinfo/nat-areas> >>

SIGN UP FOR A DAZZLING WORKSHOP ON THE SUBJECT OF "MISSOURI PRAIRIES"

Offered in cooperation with the Missouri Native Plant Society. One evening class on Wednesday, 29 April 2009, 7 - 9 pm. at Meramec Community College in Kirkwood. Two field trips 1. Shaw Nature Reserve - Saturday, 2 May 2009; and 2. Cuivre River State Park - 9 May 2009.

For registration and other info visit :

http://classes.stlcc.edu/ClassSchedule/Term_Search.asp

Click on CE Spring 2009 >> NATR-Nature Study >> enter course number "723" . Then fill in "Advanced Search" details, e.g., times as above; "All instructors"; Building >> Meramec-Science West; >> "All Parts" of Term; Sessions >> evening; >> Schedule Type >> All Types >> Characteristics >> XNAT: Nature. Then click on "Search Class".

If all the details of the class meet your schedule requirements, then click on "Continuing Education at the top of the page and follow instructions for registration. Registration started 5 January 2009.

2009 ZOO SEMINAR SERIES

Co-Sponsored by The Academy of Science of St. Louis and Saint Louis Zoo

Wednesday, Feb 18, 2009 7:30-9 pm

The Simplest Atom Offers Evidence for the Big Bang

John S. Rigden, Ph.D., 2008 Academy of Science, Outstanding Scientist Educator Award recipient; Fellow, American Association for the Advancement of Science and the American Physical Society; Honorary Professor of Physics, Washington University in St. Louis

It is currently thought that the universe began around 14 ½ billion years ago with a bang—a Big Bang. This belief, of course, raises tantalizing questions, but it's also supported by persuasive evidence. One piece of evidence comes with the water we drink and the simplest of all atoms, heavy hydrogen, also known as deuterium. With a salute to human ingenuity and a tip of the hat to lady luck, author and nationally known physicist, Dr. John Rigden discusses how physicists have discovered a way to use deuterium as a check on the validity of the Big Bang hypothesis. We shall see how this happened in this fascinating peek at how the simple informs the complex.

Book signing, *Hydrogen: The Essential Element*, with author, John Rigden, following talk.

Wednesday, March 25, 2009; 7:30-9 pm.

The Energy-Environment Nexus: Engineering Clean Energy for the 21st Century

Pratim Biswas, Ph.D., Fellow, Academy of Science—St. Louis; Stifel and Quinette Jens Professor, Director, McDonnell Academy Global Energy and Environmental Partnership, Chair, Department of Energy, Environmental and Chemical Engineering, Washington University in St. Louis

Aerosol science and engineering—known as an enabling science, it's the requisite helpmate of scientific progress because it makes possible critical and practical

applications in a number of areas of science of importance to us all, areas such as electronics, materials science, pharmaceuticals, and today's headline issue, energy and the environment. Environmental engineer, Dr. Pratim Biswas explores engineering nanoparticles, a subsection of this critical discipline, to tell us how scientists are tackling the global challenges of engineering clean energy and how nanoparticle aerosol science and technology can help enable advanced energy technology solutions.

He discusses energy technologies applicable over multiple time scales—from current fossil fuel use (novel modalities in coal combustion), to transitional biofuels usage and sustainable solar energy technologies (novel nanostructure materials); and he looks at the environmental technologies that are addressing the control of fine particulate matter and mercury emissions. It's applied science at its best, working to engineer clean energy across the globe.

GROUP ACTIVITY/WALK SCHEDULES

February 2009 Update

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

<u>Date</u>	<u>Meeting Place</u>	<u>Time</u>	<u>Leader</u>
2/7	Des Peres Park	8:00	D. Becher
2/21	Des Peres Park	8:00	D. Becher
3/7	Des Peres Park	8:00	D. Becher
3/21	RMBS @Teal Pond	8:00	D. Becher
3/28	Des Peres Park	8:00	D. Becher

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

Continuing on Thursdays in January 2009, the group will meet at 830am until May at the Des Peres Park parking lot off Ballas Road north of Manchester Road behind the Lutheran Church and School and Des Peres City Hall.

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

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

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

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

Sunday, February 22, 2008 at 7:00. James Trager, field entomologist at Shaw Nature Reserve will talk about "The Ants of Missouri". Come to find out about the many species of ants that are found in your own backyards. The location for this meeting will be at the Shaw Nature Reserve in Gray Summit. Directions for this event are as follows: Take I44 west (about 22 miles from the 270 interchange) to Gray Summit. The Gray Summit I-44 exit is # 253, just two exits west of Six Flags (Allenton/Eureka). After exiting I-44, turn left, crossing over I-44. Turn right at the intersection (at the Phillips 66) and go 50 yards to the large iron gates on the left side of the road. We will be gathering at the visitors' center prior to convoying a short distance to reserves conference center. For additional assistance with directions contact Richard Thoma at 314-541-4199.

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