



Nature Notes

Journal of the Webster Groves Nature Study Society, March 2008, Vol. 80, No. 3
First Issue November 1929

PRESIDENT'S CORNER – Ann Earley

March will be a month filled with many types of significant events this year, ranging from religious observances to basketball tournaments. For many WGNSS members, March is most closely associated with the arrival of spring, always eagerly anticipated after the long winter months. Spring is a great time to get out and enjoy the many opportunities WGNSS provides to make the most of this season and learn more about the natural world.

Author and radio program host Laura Erickson was the featured speaker for our February program meeting, held jointly with St. Louis Audubon. Attendees learned many less-known but very interesting things about common birds in the St. Louis area and the Midwest and enjoyed Laura's bird photography, including pictures of a great blue heron eating a fish and an owl dining on a mouse.

In March, we will return to the St. Louis County Library headquarters on Lindbergh for our general program meeting, to be held at **7 p.m. on Thursday, March 6**. The program topic is **dragonflies**, and additional information may be found elsewhere in this newsletter.

At our general program meeting in April, members will vote to elect Society officers and Board members. If you are interested in serving on the Board, please contact me. WGNSS needs your skills and talents!

New officers and Board members will be installed at the spring banquet to be held in May. Planning for the banquet is underway, and further details and registration information will be included in the next issue of *Nature Notes*.

MARCH MEETING – DRAGONFLIES AND DAMSELFLIES OF MISSOURI Jane Walker

Our guest speaker for the March general meeting will be Tim Vogt, Park Scientist with the Missouri Department of Natural Resources-State Parks. The meeting will take place on Thursday, March 6, 2008 at 7:00 p.m. at the St. Louis County Public Library-Main Branch. Tim's topic will cover the ecological distribution of Odonata (dragonflies and

damselflies) in Missouri's different eco-regions and sub-regions, such as prairies, prairie streams and marshes, Crowley's ridge, and open and closed canopy Ozark forests. Tim has collected, observed, and studied dragonflies most of his life and is a leading expert on the genus *Somatochlora* which includes the federally endangered Hine' emerald dragonfly.

APRIL MEETING – BIRDING IN MONGOLIA – Jane Walker

The speakers for our April general meeting are WGNSS members Paul and Barbara Johnson. The meeting will take place on Thursday, April 3, 2008 at 7:00 p.m. at the St. Louis County Library-Main Branch. They will be speaking about their birding trip to Mongolia. This should be an exciting program, so mark your calendars.

ST. LOUIS 50-MLE AREA ANNUAL LIST FOR 2007 – Jackie Chain

The 50-mile List Totals reported to me by area listers are below. It was a very good year overall. Dave Rogles reported 302 birds for the St Louis Area to Josh Uffman's list on the MOBIRDS.org website. The Western Tanager in January, the area's second Glaucous-winged Gull in November (still present as of 9 February 2008), a reported return of a Slaty-backed Gull species to Carlyle, the Northern Shrike at Riverlands and Jane Allen's backyard Spotted Towhee (though only rare) were among the special birds of 2007.

Joe Eades at 313 came within one bird of tying Tim Barksdale's long-standing State of Missouri annual list record (COMAL - a list for those birds seen in Missouri); Dave Rogles reported 305 state birds. Many miles and days were racked up by these birders who criss-crossed the state with outstanding results.

Chris Hagenlocher did a Senior Project at his school for 30 days in May in the St Louis Area and came up with 162 birds; these included the Katy Trail Painted Bunting and a Connecticut Warbler in Elsayh, IL. Chris Ferree, the Nature Reserve Technician for Forest Park Forever, has a list for the park begun in May of 2007 which, with inputs by others, is on E-bird under Forest Park..

Drumroll....and in our area:

Richard Coles 272
Jackie Chain 271
Rose Ann Bodman 266
Loy Barber 257
Jack Cowan 252
Dottie Herweg 200

Honorable Mention for active new area bird listers, loyal members of the WGNSS Thursday group:

Paul Brockland 192
Les Jenkins 157 (32 yard birds)

AN INTERESTING LETTER – Jim Adams

As most of you know, our Society awards scholarships each year to students who are planning to carry out graduate research in its areas of interest. We have received a letter of appreciation from Justin Shew, a recipient of a WGNSS scholarship. His letter is reproduced below. We're delighted to hear from Justin and extend the best wishes of WGNSS for success in his proposed research. It's heartwarming to all of us that WGNSS has been able to assist this aspiring young naturalist in a very special way and welcome him as a member of our Society.

Webster Groves Nature Study Society
PO Box 190065
Saint Louis MO 63119-6065

Dear WGNSS,

This is Justin Shew, recipient of the 2003 Menke Scholarship for Wildlife Habitat award. Thank you very much for picking me to receive this generous award. It helped me greatly with my snake research for my Master's thesis. I can't remember if I ever wrote you to give you my project report. I don't think I did, so here it is! I apologize for my VERY late reply! Included is the actual abstract from my thesis. My advisor and I are currently working to get this work published in a herpetological journal and hopefully this will happen this New Year. Unfortunately, I never knew about the society until after I moved away from St. Louis. Currently I'm working at Audubon California's Starr Ranch Sanctuary (www.starr-ranch.org) for the National Audubon Society. Here I'm working with birds and herps, with the former being the dominant taxa occupying my time. I help with current monitoring research and have the opportunity to expand our research and education programs, with the latter being most of my responsibilities.

Sometimes I'm in town so let me know if you ever want me to present my thesis work and I'll keep the audience in mind. Eventually, I want to have a presentation about my experience in South Africa. Also, I've enclosed a check for a one year membership. Thanks so much for your support. You can contact me anytime regarding a potential presentation of my work for the WGNSS.

Sincerely,



Justin Shew

949-298-4458 (home)
314-520-8786 (cell)
jjshew@hotmail.com
jshew@audubon.org

HISTORIAN'S CORNER – Jim Adams

The Battle Over Hetch Hetchy - America's Most Controversial Dam

In the wake of the 1906 earthquake and fire San Francisco desperately needed reliable sources of water and electricity. Mayor James Phelan pressed for damming the Tolumne River in the new Yosemite national park. Significant opposition to the proposal arose, led by John Muir and the Sierra Club. Letters began to pour into Congress opposing the dam, which would inundate some of the most spectacular scenery in Yosemite. The fight wound up on the floor of Congress, where politicians debated the value of scenery and the cost of western development. The dam was strongly opposed by the Sierra Club, under the active leadership of John Muir.

In 1913 Congress granted San Francisco the right to flood the scenic Hetch Hetchy Valley. A decade later the O'Shaughnessy Dam, the second largest civil engineering project of its day after the Panama Canal, was completed. To this day the reservoir created by the dam provides San Francisco with a reliable source of drinking water. Although environmentalists, lead by Muir, lost this battle, the controversy stirred the public into action on behalf of national parks. The "epic story of this first major environmental battle of the twentieth century still echoes today".

(This information from *The Battle Over Hetch Hetchy* by Robert W. Richter, 303 pages, Oxford University Press, 2005)

WALTER LIDDELL PHOTO DISPLAY – Jim Adams

We are pleased to announce that another collection of nature photographs by WGNSS member Walter Liddell will be on display at Powder Valley Nature Center during the month of March. Many bird photos are included. Walter is widely recognized as an outstanding artist with a camera. Mark your calendar and visit Powder Valley. It will be time well spent.

BOTANY FIELD REPORTS – George R. Van Brunt

December 3, 2007 Botany Field Trip

Five hardy botanists met at Mallard Lake in Creve Coeur Memorial Park, St. Louis County. It was a cold and windy, but sunny morning as we set out to test our winter botany skills. In winter, some species are actively growing, photosynthesizing, and flowering, many are senescent, and many are dormant. The challenge of winter botany is to identify a species that may look much different than at other times of year.

On our 2.6 mile walk on the path around Mallard Lake and through the woods, we found two species still blooming, *Symphotrichum pilosum* (white heath aster) and *Melilotus albus* (white sweet clover). Other actively growing plants were *Lonicera maackii* (bush honeysuckle), and *Carex albursina* (white bear sedge).

Annual and perennial herbaceous plants undergo senescence; the whole plant, in the case of annuals, and the aboveground parts in the case of perennials, dies. The remains of these plants will not “spring” to life in the spring. Botanists encounter these senescent plants as the dried remains of the past year’s growth. These remains may include stems, leaves, fruits, and seeds--usually brown, brittle, and wrinkled. Some senescent species we identified on our walk were *Oenothera biennis* (common evening primrose), *Ambrosia trifida* (giant ragweed), *Perilla frutescens* (beefsteak plant), *Verbena urticifolia* (white vervain), *Campanula americana* (tall bellflower), *Ageratina altissima* (white snakeroot), *Phytolacca americana* (pokeweed), and *Scrophularia marilandica* (late figwort).

Temperate woody plants typically undergo dormancy, a period in which leaves and flowers are absent, growth has ceased, and buds are resting, usually in scales. The buds will not start to grow again without prolonged chilling, usually 500 to 2000 hours near freezing. A dormant plant presented with optimal growing conditions before this chilling period is complete will not break dormancy. In dormant plants, botanists see the stems and buds and sometimes fruits and a few dried leaves; identification must be made on these characteristics. Dormant plants we identified included *Populus deltoides* (eastern cottonwood), *Acer negundo* (box elder), *Platanus occidentalis* (American sycamore), *Rubus occidentalis* (black raspberry), *Frangula caroliniana* (Carolina buckthorn), *Tilia americana* (basswood), *Cephalanthus occidentalis* (button bush), *Celtis occidentalis* (hackberry), and *Quercus macrocarpa* (bur oak).

Some herbaceous plants get a head start on next year’s growth by forming leaves that grow near the ground. In this warmer microenvironment, they are able to carry on some photosynthesis all winter. These leaves, however, often look different than the spring and summer leaves of these plants, making identification interesting. Some plants we saw forming new leaves for the winter season included *Barbarea vulgaris* (yellow rocket), *Boechera laevigata* (smooth rock cress), and *Polymnia canadensis* (leaf-cup).

December 10, 2007

Even the hardiest botanists did not venture forth on this day of freezing rain. Due to potentially hazardous driving and walking conditions, and plants covered with ice, the field trip was cancelled. We stayed home and studied our botany books.

December 17, 2007 Botany Field Trip

A Saturday snowstorm left an 8 inch snow cover in the St. Louis area. Due to the snow and morning temperatures in the teens, nine botanists met in a classroom at Powder Valley Nature Center to share photographs taken during the past year. Jack and Pat Harris showed very recent winter botany slides and asked us to identify the species in each photo. We should have studied our books more last week. Rex Hill showed photographs of *Epipactis helleborine* (hellborine) in flower. A European import, hellborine is the only introduced orchid in Missouri; it is becoming an invasive in some parts of our country. George Van Brunt showed some microphotographs of pollen grains. Finally, Nancy Clark showed a series of flower and insect photographs she made during the past year.

December 24, 2007

Eight botanists met at the Rockwoods Reservation Visitor Center on a sunny, cloudless morning with the temperature in the 30's. Rockwoods used to be an extensive quarry site, but now is the oldest conservation area in Missouri. Our main goal today was to find frost flowers.

Indeed, we found many frostflowers, especially on north facing slopes in the forest. All the frost flowers we found today were made by *Cunila origanoides* (dittany). The botanists had some discussion about the species that form frost flowers and how the frost flowers are formed. All agreed that the only frost flowers they have seen in Missouri were formed either by *Cunila origanoides* (dittany) or *Verbesina virginica* (frostweed). Some sources indicate that *Verbesina alternifolia* (wingstem) also forms frost flowers, but we have never seen these plants forming frostflowers. *Verbesina virginica* and *Cunila origanoides* are both perennials in which the roots remain alive throughout the winter, but the above ground parts of the plants die. When the temperature falls low enough, the stems split from expansion of freezing water and water is slowly forced out by capillary action from the living roots. The water freezes into ribbonlike formations, each with a unique shape. Several of the botanists had never seen frost flowers so there was much interest and, of course, photography.

At the entrance to one of the trails, a small enclosed area contained *Trifolium stoloniferum* (running buffalo clover), a federally listed plant found only in 8 states ranging from West Virginia to Kansas. This perennial clover was once more common, but is now endangered. Its preferred habitat is open, disturbed areas in forests and prairies, areas formerly created by large herbivores like bison and elk. The decline in these large herbivores has been accompanied by a decline in this plant species.

As usual we also observed dormant plants, senescent plants, and actively growing plants. Among the actively growing plants were *Boechnera laevigata* (smooth rock cress), *Asplenium platyneuron* (ebony spleenwort), *Alliaria petiolata* (garlic mustard), *Glechoma hederacea* (ground ivy), *Isopyrum biternatum* (lowland rue anemone), *Carex glaucoidea* (blue sedge), *Heuchera richardsonii* (prairie alumroot), *Phlox divaricata* (blue phlox), *Pellaea atropurpurea* (purple cliffbrake), and *Polystichum acrostichoides* (Christmas fern). Many of these winter plants have purplish foliage, while during the rest of the year their foliage is green. The purplish color is due to anthocyanins, flavonoid compounds manufactured by the plants from sugars. Unlike orange carotenoid pigments and yellow xanthophylls which are present during the

growing season, anthocyanins are usually manufactured in leaves during the fall. The purpose of the anthocyanins is not clear and a number of hypotheses have been suggested. One hypothesis suggests that the reddish fall leaves serve as a warning to insects looking for plants on which to lay their eggs. Another suggests that anthocyanins protect against UV radiation during nitrogen translocation from the leaves to the stems and roots prior to leaf drop. Still another suggests that anthocyanins help prevent frost injury to plant tissues.

December 31, 2007

Twelve winter botanists met at the Visitor Center in Babler State Park in St. Louis County. We drove to the Nature Trail Parking Area and botanized along the Woodbine Trail on a cloudy, cool morning with no snow or ice on the ground. Actively growing plants we identified included *Chaerophyllum procumbens* (wild chervil), *Hydrophyllum appendiculatum* (woollen breeches), *Aplectrum hyemale* (Adam-and-Eve orchid), *Carex glaucoidea* (blue sedge), *Carex albursina* (white bear sedge), and the ferns *Polystichum acrostichoides* (Christmas fern), *Asplenium platyneuron* (ebony spleenwort), and *Botrychium dissectum* f. *obliquum* (grape fern).

We spent considerable time studying and discussing the stems and buds of dormant shrubs and trees. A small tree with bright red, cone-shaped buds was not, as Father Sullivan informed us, a redbud, but rather a basswood (*Tilia americana*). Nels Holmberg pointed out that the buds of *Quercus velutina* (black oak) are large and velvety with a distinct pentagonal cross section which can be seen when looking down at the bud from its tip. *Ribes missouriense* (Missouri gooseberry) not only has many sharp thorns, but also long, narrow sharp buds. *Asimina triloba* (pawpaw) has feathery, brush-like buds that resemble an artist's brush, while *Carya cordiformis* (bitternut hickory) has very distinctive bright yellow buds. *Cornus drummondii* (roughleaf dogwood) can be distinguished from *Cornus florida* (flowering dogwood) by its reddish terminal twigs. The green stems of *Acer negundo* (box elder) can be distinguished from the green stems of *Euonymus atropurpureus* (wahoo) by the leaf scars that extend completely around the box elder stems. *Lindera benzoin* (spicebush) has paired, opposite round flower buds that are quite distinctive, while *Corylus americana* (hazelnut) can be identified by its male catkins.

Finally we identified some senescent herbaceous plants including *Elephantopus carolinianus* (Carolina elephant's foot), *Campanula americana* (tall bellflower), *Scrophularia marilandica* (late figwort), *Ruellia strepens* (smooth ruellia), *Scutellaria incana* (downy skullcap), *Anemone virginiana* (tall anemone), and *Verbesina alternifolia* (wingstem).

ST. LOUIS RAINFOREST ADVOCATES PRESENTATION – Rachel Crandell

Melisse Reichman will be giving a free slide presentation on her time in Manu NP in the Amazon. "Into the Wild: An Exploration of Undisturbed Peruvian Rainforest" MoBot 7 p.m. Sat. Feb 23

Last summer Melisse returned to Cocha Cashu, the biological research station where, decades ago, she studied monkeys and birds with world renowned biologist and director of the station, Dr. John Terborgh. After 23 years of wanting to return she finally did. This time she was shadowing biologists in the jungle to write a series of books for young people about field biologists and their work. This is a very special presentation, a premiere for St. Louis. Free, come and bring your friends.

Webster Groves Nature Study Society
 Founded 1920

GROUP ACTIVITY/WALK SCHEDULES
 February 2008 Update

<u>Date</u>	<u>Meeting Place</u>	<u>Time</u>	<u>Leader</u>
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>
Feb. 23	Riverlands Teal Pond Pkg. Lot**	8 AM	Becher
March 8	Des Peres Park*	8 AM	Becher
March 15	Riverlands Teal Pond Pkg. Lot	8 AM	Becher
March 22	Des Pere Park	8 AM	Becher
March 29	Des Peres Park	8 AM	Becher
April 5	Des Peres Park	8 AM	Becher
April 12	Tower Grove Park	8 AM	Becher
	(Gaddy Bird Garden) April		
April 19	Busch Wildlife Area (Alden Knight Hampton Lake)	8 AM	Becher
(Exit from US 40 at first exit after crossing Missouri on Rte. 94 and follow signs)			
April 26	Tower Grove Park (Gaddy Bird Garden)	8 AM	Becher
May 3	Des Peres Park	8 AM	Becher
May 10	WGNSS Birdng, BIG DAY		
May 17	Castlewood State Park (Meet near Boat Launch)	8 AM	Becher
May 24	Des Peres Park	8 AM	Becher

*On Ballas Rd, just north of Manchester)

**From I-70 go north on Route 367 toward Alton. Turn right into Riverlands at gasoline station just before bridge over Mississippi River.

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

The group will continue to meet at 8:30 AM at Des Peres Park parking lot north of City Hall and the Lutheran Church and School at the northeast corner of Manchester and Ballas. This is northeast of West County Mall and is accessible from the Park entrance off Manchester and from two entrances off Ballas. We will decide on our destinations each Thursday depending on weather and where desired birds have been reported. We carpool from there and take lunch in the field. For best results, bring binoculars.

(Cont'd next page)

For questions on birding days you may reach me at my home phone above and my email: chainjac@sbcglobal.net.

Beginning at 7:30 AM on birding days, my cell phone should be turned on at 314-497-1628. Possible changes will be advised as necessary. Our group looks forward to seeing you out there!

ORNITHOLOGY - SUNDAY BIRD WALKS – Jim Ziebol (314-781-7372)
(New birders are **cautioned** to dress for the weather. Bring binoculars if you have them.)

Date	Meeting Place	Time	Leader
Feb. 24	TBA		
March 2	Busch CA Visitor Center	8 AM	S. Clubb
March 16	Kennedy Forest, Wells Ave	8 AM	Bob Bailey, D. Garcia
March 30	Busch CA Visitor Center	8 AM	T. Parmeter
April 6	Horseshoe Lake Causeway	8 AM	F. Holmes, J. Ziebol
April 20	Castlewood S. P. Hqtrs.	8 AM	TBA
April 27	T.G. Park, Gaddy Bird Gdn.	8 AM	S. Clubb
May 4	T.G. Park, Gaddy Bird Gdn.	8 AM	B. Bailey, D. Garcia
June 1	Busch CA Visitor Center	8 AM	T. Parmeter

*Riverlands MBS – Riverlands Migratory Bird Sanctuary

BOTANY WALKS – Jeannie Moe – Co-Chair , Co-Leader (636-946-9802)

George Yatskievych – Co-Chair (314-577-9522) – Work Phone
Leader – Fr. James Sullivan (starting his 42nd yr. in January, 2008)

Botany walks are on Monday. The Botany group visits many of the same locations as the Bird and Butterfly Groups: 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 E-mails from Jack Harris (jahar@mac.com) or 314-368-0655 and receive an E-mail every Sunday, sometimes earlier, about the next Monday's trip.

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

Sunday, March 30 at 7 PM - Mike Arduser, from the Missouri Department of Conservation will give a talk entitled, "Missouri's Natural Heritage Database". Mike will be talking about the Department's efforts to gather data about all the plants and animals found on Conservation lands. We will be meeting at the regional MDC office at Busch Wildlife Area. Directions to Busch Wildlife area are as follows: From St. Louis, take highway 64/40 west. Cross the Missouri River. Take the first exit, highway 94 in St. Charles county. Make a left turn on 94 going southwest and drive approximately 1 mile. Make a right turn on highway D going west