



Nature Notes

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President's Corner

Rich Thoma

The 2012/2013 WGNSS season started off with a very well received general meeting at the Grand Glaze branch St. Louis County Library. Our featured speaker for the evening was **Mark Glenshaw** who has been observing and documenting owls in Forest Park for years. As with most of us, Mark's initial experience with owls was just by accident. He was walking through Forest Park exercising when something hooted from above as he passed under a large cottonwood tree. Looking up he saw a large great-horned owl perched in the branches. From that point on Mark was hooked. Mark's initial efforts to find owls drew limited success. Part of the difficulty finding owls for Mark was that they blend in to their surroundings, fly silently and are active at night. With persistence Mark got better at finding and observing owls and his efforts paid off, seeing owl hunting, feeding, mating and nesting behaviors. Mark told the WGNSS audience the story of **Charles** and **Sarah**, a breeding pair of great-horned owls living in Forest Park. This pair of owls has made Forest Park home for at least seven mating seasons. In this time, these two owls have raised 15 owlets, approximately 2 to 3 per year. The birds nest is typically in the hollow of a large cottonwood tree in the middle of Forest Park. The videos Mark showed this evening gave everyone brief snapshots into the lives of these two owls.

For owls that live in the dark, none of the videos were easy to acquire. In one video the two birds were mating. In the next, they were raising young. One of my favorites was a video of Charles catching a mouse on the lawn in front of the Forest Park Muny. This is a place almost everyone in St. Louis has been, yet so few know that owls live so very close. Mark Glenshaw's research on the great-horned owl shows two things. First is that you don't need to travel to far off lands to see wildlife; oftentimes you will find it right in a nearby park. Second, given just a little habitat, wildlife will often be found in places we least expect to find them. This evening, Mark Glenshaw showed that deep in the city of St. Louis, Forest Park attracts wildlife one expects only to find in rural Missouri.

Please join with me in welcoming new WGNSS members, **Susan Fenwick, Gwyn Harvey, Peggy Oates, Robert Marquis, Bob & Nancy Klepper, Sophia Warsh, Michael Garrett and Scott George**. WGNSS offers so many opportunities to learn about the plants and animals around us. If you are just getting started, there is no better way than to join a field trip and learn from some of Missouri's best experts. WGNSS also offers the opportunity make new friends having similar interests. If you are a long time member of WGNSS and see someone new at a meeting or field trip, please let me encourage you to introduce yourself and make the new person feel welcome. Please remember, all are welcome at

- In This Issue -

President's Corner.....	1
October General Meeting.....	2
June/July Bird Report	2
May Botany Report	4
Bugguide.net.....	11
The Snails of La Barque Creek Watershed: A Biological Survey	12
<i>Dicercia pugionata</i> – safe and sound!.....	15
Upside down bee fly.....	16
James F. Adams (1921–2012)	17
Seminars at St. Louis Zoo.....	17
Group Activity/Walk Schedules	18
Editor's Corner	19
LaBarque Creek Watershed Snail Survey (Appendix)	20
Administrative Information	21

any WGNSS event and we want everyone to have a great experience.

On a somber note, on August 20 WGNSS lost one of its very active long time members, **Jim Adams**. We all remember Jim as an avid birder and outdoorsman. His numerous contributions to WGNSS included *Nature Notes* Editor from 2005–2008 and 10+ years as WGNSS Historian. Jim was a prolific writer for *Nature Notes*, being noted for his biographies of past WGNSS members. For all his work, Jim received the WGNSS lifetime achievement award in 2009. Jim Adams will be missed by all in WGNSS. A memorial dedicated to Jim Adams, written by longtime friend **Paul Brockland**, may be found in this issue of *Nature Notes*.

Be sure to look in this issue of *Nature Notes* for all the October activities offered by WGNSS. October starts off with a talk from Mickey Scudder scholarship winner, **Travis Woods**, at the WGNSS general meeting on October 4. Travis will discuss his research on the effects of fire management on grassland bird populations

at [Riverlands Migratory Bird Sanctuary](#). In addition please remember that birding migration reaches its peak in October. WGNSS led field trips offer a great opportunity to see migrating birds as they pass through the St. Louis area. The Entomology Group may also catch your interest in October featuring “Insects in the Comic Pages”. For this evening, everyone is invited to bring their favorite comic featuring insects. Here is a chance to have some great fun and at the same time learn some underlying truths about insects. Don’t forget about the activities of the Botany Group and Natural History Book Club in October. More details about each group’s activities may be found in this issue of *Nature Notes*.



October General Meeting

George Yatskievych

Join us on Thursday, October 4, at 7:30 p.m. for a presentation by Scudder Scholar recipient **Travis Wood** entitled "The Effects of Prescribed Burning on Grassland Avifauna at Riverlands Migratory Bird Sanctuary." The meeting will take place at the St. Louis County Library Grand Glaize Branch, just north of Big Bend Road at 1010 Meramec Station Road (immediately east of Highway 141), in Manchester. Meet in the parking lot at 5:30 p.m. if you would like to accompany our speaker to dinner at a nearby restaurant before the meeting.



June/July Bird Report

David Becher

It was one of the hottest and driest summers in the history of Saint Louis. Nevertheless, the breeding season appears to have been relatively successful for many species. The dry conditions and consequent lack of habitat seems to have reduced the available areas for marsh and water species, but breeding appeared to be normal in those areas that did have water.

Dan Kassebaum reported a Mottled Duck from Carlyle Lake on the first of June to start the season. On the second Josh Uffman reported a

number of late ducks from RMBS including three Common Goldeneye and a Pintail. Frank Holmes had a Redhead at Horseshoe Lake on the July 15th and Bill Duncan reported a Lesser Scaup at RMBS on July 16th, both rather out of season.

The Double-crested Cormorants to not appear to have nested in the trees along Confluence Road near RMBS this summer. It is possible that the dry conditions discouraged them, since the adjacent pond had no water.

A Black-crowned Night Heron was seen regularly in the area of Heron Pond at RMBS. This species once a very common nester in the Pontoon Beach Heronry is now often difficult to find. Late in June, the water in part of Horseshoe Lake was drained creating excellent heron habitat. One June 30th, Frank Holmes counted an amazing 715 Common Egrets, 253 Little Blue Herons, 91 Great Blue Herons, 71 Snowy Egrets, 56 Black-crowned and 2 Yellow-crowned Night Herons.

An Ibis found at Bittern Basin at B. K. Leach by Dave Rogles, Tom Bormann, and David Becher caused considerable discussion. It was finally decided that it was most likely a White-faced Ibis in poor plumage. Joe Eades spotted a very distant Swallow-tailed Kite in a flock of Mississippi Kites at Clarence Cannon on July 28th and was able to get a couple of other birds lucky enough to present onto it.

On June 6th Andrew Reago video recorded a King Rail and chick at B. K. Leach. The only Common Gallinule report was by Frank Holmes at Horseshoe Lake in Granite City, Illinois. He first reported it on June 30th.

An adult Sandhill Crane in a bean field in western Saint Louis County on July 10th was rather a surprise. Paula Mrozcewski found as she drove to work and informed the Malones

There were still a few north bound shorebirds at the beginning of the month. It is sometimes difficult to be sure in summer whether some birds are going north or south or just wandering aimlessly. David Marjamaa reported two Black-bellied Plovers and two Dunlin all in breeding plumage at Heron Pond at RMBS on the first of June. The next day had about two dozen birds of five species there.



Black-necked Stilt, B. K. Leach Conservation Area. Photo by David Becher.



Wilson's Phalarope and Semipalmated Plover, Winfield, 7/26. Photo by David Becher.

Black-necked Stilts nested in good numbers at B. K. Leach with counts in excess of twenty birds reported. Numbers of young were observed so nesting was apparently successful. This was one of the few wetland areas with good habitat and the birds made the most of it. By July 8th, there were already a few returning shorebirds. Charlene Malone reported Stilt Sandpiper, both Yellowlegs species, Solitary Sandpiper and a few Least Sandpipers.

On July 13th, Jim Montjoy reported a Ruff molting out of breeding plumage at the Swan Lake access at Two Rivers NWR. Unfortunately, it was apparently not repeatable. The SLAS field trip up Route 79 had good shorebirds at Clarence Cannon and Winfield Dam. About a dozen species were recorded including a Western Sandpiper at Winfield, an Upland Sandpiper at Cannon, and a Wilson's Snipe at Clarence Cannon that seems



Yellow-billed Cuckoo, 7/10. Photo by David Becher.

extremely early for a fall migrant. On July 26th, Charlene Malone reported 7 Upland Sandpipers at Clarence Cannon and 15 Buff-breasted Sandpipers. That is high count for Uplands in this area and multiple birds were findable at Cannon for some time. Dave Haenni added Sanderlings and Wilson's Phalarope to the days finds there.

The Least Terns were apparently successful in nesting on the barge at RMBS and were seen in the area throughout the summer. Chrissy McClarren found four Black Terns in Ellis Bay on the fourth of June. This species was unusually rare in migration this spring.

At least two and possible three pairs of Scissor-tailed Flycatchers nested in the area this year. The nest that has been present at I-64 and Route N was joined by a second one at the Weldon Springs Site (Mt. Doom). Both nests appear to have fledged young. There was also a report of birds in the Belleville, Illinois area were they nested a few years ago, but a confirmed nesting was not reported.

Western Kingbirds continue to increase in the area. There are now several colonies and lots of nests in around the area.

Sedge Wrens appeared about the third week of July and were soon singing in large numbers in many damp grassy fields. It takes practice to separate the song from that of Dickcissel, but most of them had stopped singing by then.

At least one pair of Hooded Warblers nested at Castlewood State Park according to Mike Brady's report and they were certainly easy to hear along

the trail that goes up the hill across from the park office.

Bryan Prather reported that a White-crowned Sparrow that had been injured by a cat was brought to Wild Bird Rehabilitation on June 19th. This is very late and it is possible that bird was already unhealthy.

Connie Alwood reported 30 breeding plumage Bobolinks at B. K. Leach on July 1st. This seems an odd date, but they do nest in the northern most part of the state.



May Botany Report

Compiled by George Van Brunt

May 7, 2012—Valley View Glades Natural Area, Jefferson County, MO (contributed by George Van Brunt).

On a cloudy morning with light rain and a temperature in the upper 60^osF, Wayne Clark, Nancy Clark, Jeanne Clauson, Jack Harris, Kathy Thiele, Larry Morrison, John Oliver, Dave Tylka, Burt Noll, Jerry Castillon, and George Van Brunt met Fr. Sullivan at the Valley View Glades Natural Area Parking Lot in Jefferson County. The rain stopped after about the first half hour of our walk, but the clouds remained throughout our field trip.

We walked part of the 2.5 mile trail that winds throughout this 225 acre MDC property of mesic forest and dolomite glades. We botanized mostly on the glades but spent some time in the forest as well. Despite the cloudy day, many species were in bloom with open flowers. Species in bloom included *Pedimelum esculentum* (prairie turnip), *Oenothera macrocarpa* (Missouri evening primrose), *Coreopsis lanceolata* (tickseed coreopsis), *Clematis fremontii* (Fremont's leather flower), *Erigeron strigosus* (daisy fleabane), *Echinacea simulata* (glade coneflower), *Baptisia australis* (blue wild indigo), *Asclepias viridis* (green-flowered milkweed), *Comandra umbellata* (bastard toadflax), *Rosa carolina* (pasture rose), *Castilleja coccinea* f. *lutescens* (Indian paintbrush, yellow form), *Hedyotis longifolia* (long-leaved bluets), *Monarda bradburiana* (horsemint), *Dodecatheon meadia* (shooting star), *Rhamnus caroliniana* (Carolina buckthorn), *Cornus drummondii*



Dodecatheon meadia (shooting star). Photo by Burt Noll.

(roughleaf dogwood), *Aquilegia canadensis* (columbine), *Arisaema dracontium* (green dragon), *Krigia biflora* (false dandelion), *Parthenium integrifolium* var. *integrifolium* (wild quinine), *Lithospermum canescens* (orange puccoon), *Hypoxis hirsuta* (yellow star grass), *Scutellaria leonardii* (small skullcap), *Penstemon pallidus* (pale beard-tongue), *Prunella vulgaris* (lance self-heal), and *Phlox pilosa* (downy phlox). *Asclepias viridiflora* (green milkweed), fairly common on the glades, was nearing bloom. Species in fruit included *Astragalus crassicaarpus* (ground plum), *Rhus aromatica* (fragrant sumac), *Hydrastis canadensis* (golden seal), and *Physocarpus opulifolius* (ninebark).

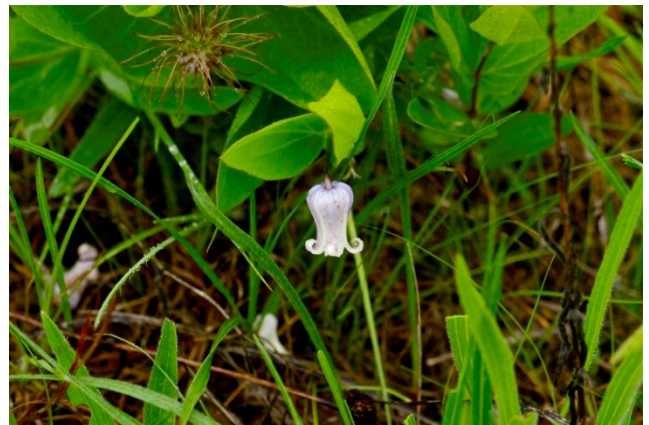
We found large numbers of a flowering sedge which we identified as *Fimbristylis puberula* (hairy fimbry), family Cyperaceae. Missouri hosts about 219 species of sedges in 16 genera. More than half of these species belong to the genus *Carex*. Species in the family Cyperaceae are grass-like plants sometimes confused with grasses and rushes (family Juncaceae). Sedges can be distinguished



Rhamnus caroliniana (Carolina buckthorn). Photo by Burt Noll.



Fimbristylis puberula inflorescence. Photo by Jack Harris.



Clematis fremontii flower and fruit (upper left). Photo by Jack Harris.

from grasses and rushes by their solid stems which are usually triangular in cross-section. Sedges have 3 rows or ranks of leaves, each rank attached to one side of the triangular stem. Grasses, on the other hand have hollow stems which are circular in cross section. Grass stems are marked by periodic nodes and have 2 ranks of leaves. Rushes also have

circular stems like grasses, but rush stems lack nodes and are solid throughout. This simple description will allow one to distinguish a grass from a sedge from a rush with most species of these three monocot families.

Clematis fremontii (Fremont's leather flower) is a member of the buttercup family (Ranunculaceae) with a very limited range. There are two disjunct population areas. One is found on limestone prairies in 3 south central Nebraska counties that are contiguous with 15 north central Kansas counties. The other population area is in 6 east central Missouri counties, St. Louis, Jefferson, St. Genevieve, Franklin, St. Francois, and Washington; most of the population is in Jefferson County. This species is named after General John C. Fremont, the 19th century explorer and 1856 Presidential candidate, who catalogued it in the 1840's. Two very small populations of *Clematis fremontii* have been discovered on cedar glades near Chattanooga, Tennessee and Rome, Georgia. Investigations were undertaken in 2009 to determine whether these populations were relict populations or recent introductions. This species is sold by nurseries so it is quite possible that the Tennessee and Georgia populations are introductions from gardens nearby. I e-mailed one of the principal investigators seeking further information but never received a reply. Apparently no firm conclusions could be reached.

May 14, 2012—St. Joe State Park, St. Francois County, MO (contributed by Steve Turner).

Time: 9:30 a.m.–12:30 p.m.

Conditions: Sunny, 70–80 °F

Participants: Richard Abbott, Wayne Clark, Nancy Clark, Jeanne Clauson, Jack Harris, Pat Harris, Louise Langbein, Larry Morrison, Burton Noll, John Oliver, Steve Turner, Kathy Thiele, Dave Tylka, George Van Brunt (14 attendees).

The assembly area for the group was the parking lot on Pimville Road at the intersection of the road with the paved biking trail. From there the group explored southward through shrubby, open to lightly wooded areas. Plants observed blooming included *Calamintha arkansana* (calamint), *Parthenium integrifolium* (wild quinine), *Oenothera macrocarpa* (Missouri primrose), *Taenidia integerrima* (yellow pimpernel), *Penstemon pallidus* (pale

beardtongue), *Scutellaria parvula* ssp. *parvula* (small skullcap), and *Asclepias viridis* (spider milkweed).

As we entered a more densely wooded area, we found a few flowering specimens of *Spigelia marilandica* (Indian pink), a species for which this area is well known to the group. Also observed was a flowering stalk of *Swertia carolinensis* (American columbo), as well as numerous basal rosettes of this species. This member of the Gentianaceae is described as a "short lived perennial," typically existing in a leafy vegetative stage for a few years before sending up a flowering stalk in response to some trigger. Each inflorescence contains dozens of flowers of unusual morphology, with each of the four petals bearing a conspicuous fringed gland on its surface. After the plant bolts it dies, but not before producing numerous fruits from which the next generation is propagated. We observed dry, brittle remains of some of these inflorescences persisting from the previous year.

Also found in the woodland were flowering stalks of *Thalictrum revolutum* (waxy meadow rue). The male and female plants of this dioecious species are strikingly different when examined in detail, with pistillate (female) flowers appearing as jumbles of styles, and staminate (male) flowers like small hula skirts composed of dozens of pendant stamens. Characters which distinguish this meadow rue from others found in the state are sessile upper leaves, and leaflets which bear numerous stalked glands on their lower surface. When crushed, the foliage also emits a peculiar odor sometimes described as unpleasant.

In more open and partially gladelike areas nearby, we found *Verbascum blattaria* (moth mullein; the yellow form only was observed here), *Matelea decipiens* (climbing milkweed), *Allium canadense* (wild onion), *Monarda bradburiana* (Bradbury beebalm), *Coreopsis lanceolata* (tickseed coreopsis), *Verbena simplex* (narrow-leaved vervain), *Rosa carolina* (pasture rose), and *Rhamnus caroliniana* (Carolina buckthorn). An interesting find was a population of *Houstonia* (bluet) plants strongly resembling *H. longifolia*, but with basal rosettes of ciliate leaves. On the basis of this character, the *Houstonia* / *Hedyotis* keys of both Mohlenbrock and Cronquist point to *H. canadensis*, a plant not previously included in the Missouri flora.

Our path continued along the paved biking trail, along the margins of which were found numerous vegetative specimens of the native bittersweet, *Celastrus scandens*, as well as individuals of both sexes of the dioecious wild yam *Dioscorea* sp., probably *villosa*. Several *Lepidium* specimens seen in this area were believed to be *L. virginicum* (poor man's pepper grass), though this identity was tentative due to the unusual, nearly glabrous aspect of the inflorescence axes. Normally, the plant can be differentiated from the similarly appearing *L. densiflorum* (another pepper grass) by the nature of the upper stem puberulence (curved with pointed tips in *L. virginicum* vs. straight with rounded tips in *L. densiflorum*). A few individuals of the distinctly smooth and glaucous *Silene csererii* (smooth catchfly) were seen. Additional plants of note included *Triosteum perfoliatum* (horse gentian), *Polygonatum biflorum* (Solomon's seal), *Boechea canadensis* (sicklepod), *Castilleja coccinea* (Indian paintbrush), *Ruellia pedunculata* (pedicellate wild petunia), *Amorpha canescens* (lead plant), and many others. A special treat was a flowering specimen of *Smilax lasioneuron* (carrion flower), with its intricate globose inflorescences of tiny, pale yellow flowers.

To this point, we had not yet found *Nemastylis geminiflora* (celestial lily), another unusual plant for which the park is known. In search of this uncommon species, we continued on into glade, open areas on the north side of Pimville Road, where we have seen the plant in previous years. Here we did find *Nemastylis* fruits, though no flowering specimens were located. A somewhat unusual plant seen in this area was *Plantago cordata* (heartleaf plantain), which sports long, coarse inflorescence spikes; these appeared to be in fruit during our visit. A single flowering specimen of *Tephrosia virginiana* (goat's rue) provided the opportunity for a direct comparison of its leaves with the morphologically similar leaves of *Amorpha canescens* (lead plant). The two are readily distinguished: the *Tephrosia* leaflets are long and narrowly elliptic, terminating in a pronounced acuminate or awned tip. In contrast, *Amorpha* leaflets are oblong with a nearly round tip. In addition, the *Tephrosia* leaves tend to be somewhat folded longitudinally.

Overall, the floristic diversity and quality of the area is surprisingly high given the site's history of



Leaflets of *Tephrosia virginiana* (top) and *Amorpha canescens* (bottom). Photos by Steve Turner.

extreme disturbance and industrialization. Although a number of exotics were observed, these have not (yet) come to dominate the landscape. *Medicago lupulina* (black medic) was abundantly in evidence in a few roadside areas. The roadsides were also home to *Centaurea stoebe* (spotted knapweed), though only a few scattered specimens of this notoriously weedy species were to be found.

May 21, 2012—Hughes Mountain Natural Area, Washington County, MO (contributed by Jack Harris).

Time: 2:00–5:40 p.m.

Conditions: sunny and pleasantly warm, 65–75 °F, wind light & variable, mostly of anti-photo character.

Participants: George Van Brunt, John Oliver, Steve Turner, Ruth TenBrink, Jack Harris, Pat Harris, Louise Langbein, Kathy Thiele, Jeanne Clauson, Wayne Clark, Nancy Clark, Burt Noll, and Dave Tylka. Most WGNSS weekly field botany trips have a regular order of activity, i.e., 1)



Phemeranthus calycinus (fame flower). Photo by George Van Brunt.

morning travel to the day's hiking site, 2) explore/examine local flora, 3) lunch at local gourmet restaurant (for some), and 4) return travel to residence. However the trip to Hughes Mountain was slightly irregular due to a reordering of the steps in the routine. Beginning with 1) lunch at a local gourmet restaurant (for some), 2) assemble at Hughes Mountain to explore/examine the local flora, fauna and geology, 3) a brief peek at sunspots (for some), and 4) return travel to residence. This schedule change was made to synchronize our site arrival time with the flowering time of the fame flower, a species whose peak blooming time occurs in the afternoon.

The trail from the parking area to the summit is, not too surprisingly, all up hill. It starts at an elevation of ≈ 820 feet, climbs steadily from the local plain of farm and pasture, through an oak/hickory forest, a woodland and then emerges onto the barren rock dome (the trail disappears here) and finally reaches the summit at ≈ 1200 feet. The first reward for making this trek is a cohort of flora that continually varies with the elevation.



Galium arkansanum (Arkansas bedstraw) plant (top) and flower (bottom). Photos by Jack Harris.

This gradation reflects the depth and chemical character (acidity / alkalinity) of available soil for plants to grow on. The higher the elevation the less accumulation of erosional debris there is available. The upper reaches of the dome reveal the unique exposures of precambrian igneous formations¹ seen in only a few places on the planet. And finally from the high areas one is afforded several unusually expansive and scenic views of the Missouri Ozarks. The second reward is that it is all downhill on the way back.

Leaving the parking area, the trail first leads through a small area of what was previously pasture or farmland. As is usual for such disturbed areas, many exotic species are noted here e.g., *Melilotus officinale* (yellow sweet clover), *Dianthus armeria* (Deptford pink), *Medicago lupulina* (black medick), *Leucanthemum vulgare* (ox-eye daisy), and *Potentilla recta* (rough-fruited cinquefoil). Upon entering the forest / woodland zone the species of plants tend toward the native varieties, e.g., *Ribes*

¹http://en.wikipedia.org/wiki/Hughes_Mountain

missouriense (Missouri gooseberry), *Quercus marilandica* (blackjack oak), *Rhus aromatica* (fragrant sumac), *Scutellaria parvula* (small skullcap), and *Stylosanthes biflora* (pencil flower). In the woodland area, *Galium arkansanum* (Arkansas bedstraw) was found. This unusual species with its small, purple mottled flowers (usually white in our locally common species of *Galium* sp.) is endemic to the Ozark, Boston, and Ouachita Mountain regions, and at this location is on the northern edge of its range. This plant was found growing not far from *Opuntia humifusa* (eastern prickly pear).

Emerging from the upper woodland edge and onto the open igneous glade we were greeted by a robust showing of the small but bright and colorful *Phemeranthus calycinus* (fame flower). This is a new name for this plant which in most current literature is listed as *Talinum calycinum*. Its peak blooming period is in the afternoon and is the reason our field trip schedule was adjusted accordingly. Scattered over the rhyolite landscape, singly or in groups, in cracks in the rock or wherever thousands of years of erosion has created shallow places for soil to accumulate, this hardy little plant was blooming profusely. Both Julian Steyermark (Flora of Missouri - 1963) and Dave Tylka (private communication - 2012) report that fame flower does well in rock gardens with sufficient sunlight and drainage. In my opinion the deep crimson colors of fame flower and its competitor *Callirhoe* sp. are the most distinctive and attractive of all Missouri flora.

Most of the other vegetation seemed to be struggling with desiccation, e. g., the few *Oenothera linifolia* (thread-leaved sundrops) flowers were mostly fading and the leaves were wilted and sagging. Also a few *Nuttallanthus texanus* (southern blue toadflax), and *Verbena simplex* (narrow-leaved vervain), in similar condition were seen. The drought-like status of the area was audibly apparent when walking—crunch, crunch, crunch—over scattered patches of *Cladina* sp. (reindeer moss) that was mixed with other plant material. Occasional, widely scattered plants of *Coreopsis grandiflora* (big flowered coreopsis) were brightening the scene with splashes of yellow.

And while we were watching... we were being watched! By *Crotaphytus collaris collaris* (eastern collared lizard). This reptile apparently has a



Oenothera linifolia (thread-leaved sundrop). Photo by George Van Brunt.



Crotaphytus collaris collaris (eastern collared lizard). Photo by Steve Turner.

genetic disposition to pose for camera buffs when it's not hunting for prey. Many, many pictures were taken of this colorful dude by eager photographers.

As an old Native American said: *One does not really know a trail until one has walked it both ways.* And so it was on the return trip down from the summit area several species not seen while walking up the hill were noted. Many of which are included in the following overall days listing (species noted in the narrative above not listed here): *Coreopsis lanceolata* (tickseed coreopsis), *Croton monanthogynus* (one-seeded croton), *Croton willdenowii* (common rushfoil), *Cunila origanoides* (dittany), *Danthonia spicata* (poverty grass), *Desmodium* sp. (beggar's lice), *Erigeron annuus* (daisy fleabane), *Erigeron strigosus* (daisy fleabane), *Hedyotis longifolia* (long-leaved bluets), *Hypericum gentianoides* (orange grass), *Hypericum hypericoides* (St. Andrew's cross), *Juncus interior* (inland rush), *Krigia biflora* (orange dwarf dandelion), *Krigia virginica* (Virginia dwarf



Polygala sanguinea (field milkwort). Photo by Steve Turner.



Hemerocallis fulva (orange daylily). Photo by Jeannie Moe.



Thorybes pylades (Northern Cloudywing) nectaring on *Blephilia ciliata* (Ohio horsemint). Photo by Jeannie Moe.



Matelea decipens (climbing milkweed), leaves and flowers. Photo by Jeannie Moe.

dandelion), *Lespedeza violacea* (bush clover), *Lespedeza virginica* (slender bush clover), *Panicum acuminatum* (panic grass), *Parthenocissus quinquefolia* (Virginia creeper), *Penstemon pallidus* (pale beard-tongue), *Phlox pilosa* (prairie phlox), *Plantago virginica* (hoary plantain), *Podophyllum peltatum* (may apple), *Polygala sanguinea* (field milkwort), *Prunella vulgaris* (self-heal), *Rhamnus caroliniana* (Carolina buckthorn), *Rhus copallinum* (winged sumac), *Rosa carolina* (pasture rose), *Scutellaria elliptica* (hairy skullcap), *Solidago altissima* (tall goldenrod), *Solidago buckleyi* (goldenrod), *Symphotrichum anomalum* (many-rayed aster), *Symphotrichum patens* (spreading aster), *Toxicodendron radicans* (poison ivy), *Tradescantia obiensis* (smooth spiderwort), *Triodanis perfoliata* (clasping Venus' looking-glass), *Vaccinium pallidum* (lowbush blueberry), and *Viola sagittata* (arrow-leaved violet).

Back at the parking area several trippers soon departed after a successful day of field botany. While a few lingered discussing the day's event,

Wayne Clark erected his home made telescope (about 30X with silver filter) which was designed to afford safe viewing of the sun. Those taking a peek, with some coaching by Wayne, were able to observe sunspots, these not to be confused with sundrops (mentioned above). Soon all began the return trip home in order to arrive before sundown.

Contributor note: Information for this report was provided by Steve Turner and Wayne Clark.

May 28, 2012—Onondaga Cave State Park, Crawford County, MO (contributed by Jeannie A. Moe).

Participants: Steve Turner, Ruth TenBrink, George Van Brunt, Fr. Sullivan, Bob Coffing, Wayne Clark, Nancy Clark, Rick Gray, Jeannie Moe, Jack Harris, Pat Harris, John Oliver, Alan Collins, and Lil Collins.

On this beautiful spring day, 14 botanists assembled at Onondaga Cave State Park. Over the next two hours, we traveled down the Blue Heron Trail. The trail went through the woods on a hillside above the stream that emptied out of the old millpond. *Hemerocallis fulva* (orange daylily) and *Leucanthemum vulgare* (oxeye daisy) were the first two plants in bloom that we encountered. Both flowers are exotics. Next we came across a butterfly, *Thorybes pylades* (Northern Cloudywing), nectaring on *Blephilia ciliata* (Ohio horsemint). *Dioscorea villosa* (wild yam) was the next flowering plant we encountered. On the other side of the stream, the same plant was in fruit. *Heuchera americana* (alum root) had well developed flower buds that hadn't opened yet. Other flowering plants in the woods included *Matelea decipens* (climbing milkweed), *Hydrangea arborescens* (wild hydrangea) and *Aquilegia canadensis* (columbine).

The trail emerged from the woods at the mill pond. On the cliff next to the pond was *Clematis pitcheri* (leather flower). The botany group is more familiar with the upright growing *Clematis fremontii* (Fremont's leather flower) found on glades. *C. pitcheri* is a vine but the flower is very similar to its glade counterpart. The millpond and stream below it were full of dragonflies and damselflies. There was even a large *Trachemys scripta elegans* (Red-eared Slider), a water turtle resting on a log.

Leaving the millpond we entered the woods again to walk down the other side of the stream. The first plant we encountered was *Broussonetia papyifera* (paper mulberry) which is an introduced exotic. *Erigeron annuus* (daisy fleabane), *Calycocarpum lyonii* (cupseed), *Staphylea trifolia* (bladdernut), *Rosa setigera* (prairie rose), *Aristolochia tomentosa* (woolly pipevine) and *Euonymus atropurpureus* (wahoo) were some of the other plants blooming.

The stream was full of life. *Libellula luctuosa* (Common Whitetail), *Anax junius* (Common Green Darner), *Erythemis simplicicollis* (Eastern Pond Hawk), and *Libellula luctuosa* (Widow Skimmer) were some of the dragonflies in the stream busily mating and laying eggs. The only damselfly I could identify was the *Calopteryx maculata* (Ebony Jewelwing). A *Battus philenor* (Pipevine Swallowtail) was nectaring on *Justicia americana* (water willow). *Seiurus noveboracensis* (Louisiana Waterthrush), *Mniotilta varia* (Black and White Warbler), *Agealium phoeniceus*

(Red-winged Blackbird), and *Corvus ossifragus* (Fish Crow) were some of the birds in and around the stream.

Onondaga Cave State Park is a beautiful park. Some day I will actually take the cave tour.



Bugguide.net

Richard Thoma

Be Prepared! Well, last April, while hiking at West Tyson County Park, I wasn't prepared. The day was cool, maybe 60°, overcast and threatening rain, certainly not insect weather. I didn't expect to see anything and accordingly didn't plan for anything. I left home without any collecting equipment and no camera. That was a mistake! While passing a still standing dead tree with almost no bark remaining, I happened to look down and saw a large ichneumonid wasp resting on the trunk. The wasp was gorgeous, with orange, black and yellow stripes. "She" was ovipositing, using her long ovipositor to drill a hole in the hard wood. Somewhere deep in the wood was a wood boring beetle grub in eminent danger of having a wasp egg laid on it. No camera (DAMN!!!), no net, no collecting jar, no pen and paper! What could I do? How was I going to figure out what I had just seen? The best I could do was to remember all of the physical characteristics of the insect.

I'm not an expert on ichneumonid wasps. There are very few people that are! In years past the only way to identify most insects was to use dichotomous keys, museum specimens and/or get help from an expert. Almost all of these ways require one to have a specimen (or at least a photograph) of the insect in hand for the identification. Without the specimen, identification, even for the most colorful specimens, had little chance of success. Long-term memory is notoriously inaccurate.

In years past, I would have been out of luck, and never been able to identify the wasp. However, we now live in the "Internet Age". There are many very useful websites that will help with insect identifications. One of those, **Bugguide** (www.bugguide.net), is considered one of the best.



Megarhyssa greenei in a nearly identical pose to that seen by the author. Photo by Bruce Marlin, Winfield, Illinois <http://www.cirrusimage.com> and <http://www.bugguide.net>. Used by permission.

Bugguide is an online community of naturalists who enjoy learning about and sharing observations of insects primarily through photography. Using data provided by insect photographers, this website has accumulated a vast amount of information including flight times, range, life history, habitat, life cycle, food preferences and other natural history observations about thousands of insect species. With a little bit of insect taxonomy knowledge, one can quickly scan through thousands of well organized photos to find a match. Another option (though not for the wasp I had seen), is to submit a photo to the experts at Bugguide for identification. Many experts from around the country are willing to help with insect identifications.

With the ichneumonid wasp characteristics fresh in my memory, I searched www.bugguide.net at home. Scanning the photos on this web site, I was able to match what I saw to two possible closely

related species, *Megarhyssa greenei* or *Megarhyssa macrurus*. The only difference between the two species was that *M. macrurus* has two wing spots whereas *M. greenei* has one. Having focused on the body colors, I wasn't 100% sure if the ichneumonid I saw had a second spot. My guess is that it did not. I'm pretty sure that I would have remembered that. Best guess is that the wasp I had seen ovipositing was *M. greenei*. Not only did I see something truly spectacular on a day when nothing was expected but I was able to identify what I had found. Without the internet, this would not have been possible.



The Snails of La Barque Creek Watershed: A Biological Survey

Nels Holmberg, Ron Oesch & Jack Harris²

The La Barque Creek Watershed in Jefferson County has been an area of special interest to the community of natural history scientists and environmental organizations for several years. The relatively undisturbed habitat contains a documented high diversity of plants and a near record number of native fish species which confirms a high water quality, all of which consistently leads scientists to designate the area as uniquely high in biological integrity. Biological assessments of other forms of life are important to substantiate the degree and scope that the watershed indeed is a harbor for a robust biodiversity. A snail survey of the La Barque Creek Watershed was undertaken as one means of supplementing fish, plant, bryophyte and water quality data.

A terrestrial snail survey of the La Barque Creek Watershed was carried out by a team of volunteers over a period of 3 years. The project was organized, scheduled and operated by Nels Holmberg and Bob Coffing acting in collaboration with Ron Oesch as on-site technical advisor, field monitor and overall snail guru.

² Nels Holmberg and Ron Oesch designed, carried out and documented the project, and Jack Harris contributed to the writing of this summary report.



Rabdotus dealbatus. Photo by George Van Brunt.



Anguispira alternatata. Photo by George Van Brunt.



Ron Oesch examines snail shells. Photo by Jack Harris.



A snail shell sample. Photo by Jack Harris.



Gastrocopta armifera. Photo by George Van Brunt.



Nels Holmberg sorting snail shells, March 1, 2008. Photo by Jack Harris.

The area of concern comprises 8,365 acres around the 6 miles of La Barque Creek and its tributaries. The terrain consists of St. Peters sandstone bluffs, bowls, waterfalls and glades, with the hills capped by dolomite. A major portion of the surface area is covered by oak - hickory forests with lesser areas occupied by residential and other cultural developments. Sandstone substrate dominates the watershed and is responsible for much of its scenic

character. The combination of dolomite and sandstone substrates creates the basis for various forms of its impressive diversity. However as the survey proceeded, it was learned that sandstone is not good habitat for snails. Also, many of the hills in the watershed have small chert caps, which also support few snails. It was observed that snails track the calcium in the environment, as they need



First Snail Survey Team: Jeannie Moe, Cliff Parmer, Ron Oesch, Bill Knight, Sarah Berglund, Pam Schnebelen, Pam Wilcox, George Van Brunt, Julie Nicolai, Larry Berglund, Claire Meyners, Sue Schoening, Nels Holmberg, Bob Coffing, Brad Harris La Barque Creek Watershed Don Robinson property 1 March 2008 Photo by Jack Harris.

it to build shells. High in the watershed (Robinson property and Dakota Hills) the dolomite areas were small (and near the hill tops) compared to low in the watershed (Hilda Young Conservation Area) where there are large bands of dolomite, extending almost down to the creek. The La Barque Creek Conservation Area is in between. This is reflected in the snails/hour data for these areas: 6.2, 13.2, and 15.4 respectively. The highest rate (38.4) was for the Hwy-FF road cut (dolomite). The other rich site (Brown property, 26.4) was fueled by a log pile at the edge of a small clearing (why ?????) and a rich dolomite ridge top. On a micro scale pockets of abundance or scarcity, for unknown reasons, were occasionally encountered. Two species were found to be dolomite glade specialists; *Pupoides albilabris* (white-lip dagger), and *Rabdotus dealbatus* (whitewashed dealbatus), although the *Pupoides* was also found in a fescue field.

Terrestrial snails (referring to their shells) come in many sizes from only a few millimeters in diameter

to over 20 mm. While collecting at one site, Ron Oesch reported that he collected very fine dirt from between ledges of sandstone outcrops in a pill bottle. He later examined the material under a microscope and found about 20 snail shells.

In summary: there are 122 species of terrestrial snails known to occur in Missouri. Fiftythree (53) of those species were found in the La Barque Watershed. The total product of the survey, i.e., 53 species, was derived from the collection of 6,368 shells at 66 sites. Ron identified all 6,368 shells. The species *Inflectarius inflectus*, (Shagreen snail), was the most frequently found snail (939 shells, or 14.75% of the total). No state listed species of conservation concern have been found. The number and distribution of sites surveyed across the entire La Barque Creek Watershed area may make this the most complete and comprehensive snail survey in the State of Missouri.

Volunteer surveyor teams were made up from individuals and several organizations, e.g., Webster Groves Nature Study Society, Missouri Native

Plant Society, Master Naturalists (Confluence, Great Rivers and Mirimigoua Chapters), Stream Team 4123 – La Barque Creek, Shaw Institute for Field Training, and Friends of La Barque Creek.

We wish to express our sincere THANKS and appreciation for the enormous assistance of all the volunteers. And the project would have been severely limited in value and content without the generous hospitality and assistance provided by the private land owners in the watershed who welcomed and assisted us in so many ways. Collectively you have made a significant contribution to the knowledge of the biodiversity of the La Barque Creek Watershed and to the state of Missouri. La Barque Creek Watershed is indeed a very high quality natural area and deserves the attention of all nature study aficionados.



Dicerca pugionata – safe and sound!

*Ted C. MacRae*³

One of my favorite beetle species in Missouri is *Dicerca pugionata*—a strikingly beautiful jewel beetle (family Buprestidae) found sporadically across the eastern U.S. Unlike most species in the genus, which breed in dead wood of various species of trees, *D. pugionata* larvae mine living stems of certain woody shrubs—namely alder (*Alnus* spp.), witch-hazel (*Hamamelis virginiana*) and ninebark (*Physocarpus opulifolius*) (Nelson 1975). When I first began studying Missouri Buprestidae (way back in 1982), the species had just been reported from the state based on a single specimen (Nelson et al. 1982). I happened to stumble upon these beetles at what became my favorite collecting spot during the 1980s—[Victoria Glades Natural Area](#), just south of St. Louis in Jefferson Co. For several years while I was visiting Victoria Glades, I found these beetles regularly during spring and fall on stems and branches of living ninebark plants growing within the ravines and along the toeslopes at the lower edges of the glades.

After finding the beetles at Victoria Glades (and nearby Valley View Glades Natural Area), I made

³ Originally posted June 1, 2012 at the author's website: *Beetles in the Bush* (<http://beetlesinthebush.wordpress.com>). Photos by the author.



Dicerca pugionata on *Physocarpus opulifolius* (ninebark), Victoria Glades Natural Area, Jefferson Co., Missouri.

it a habit to examine ninebark wherever I found it growing in Missouri. Ninebark is actually rather common in the state along the rocky streams and rivers that dissect the Ozark Highlands. Interestingly, I almost never encountered this beetle on ninebark elsewhere in the state. I'm sure it occurs in other areas, but probably at too low a level to be easily detected. I surmised that the populations at Victoria and Valley View Glades were unusually high due to the non-optimal conditions for its host plant. The ravines and toeslopes where the plants grow are drier than typical for ninebark, and unlike the lush, robust plants found in moister streamside habitats, the plants at these glades are small, scraggly and often exhibit a certain amount of dieback. It seemed likely to me that the plants growing in the glades were less capable of fending off attacks by these insects, thus resulting in relatively higher numbers of beetles at these glades.

After the publication of my "Buprestidae of Missouri" (MacRae 1991), it would be many years before I actually returned to Victoria Glades. When I did return, I was pleased to see that management practices (e.g. prescribed burning, cedar removal, etc.) intended to halt the encroachment of woody vegetation and preserve the glade's pre-settlement character had been implemented in the area. I was a little bothered, however, by the seeming paucity of insects compared to the years prior to management. I visited the glades again several times afterwards, and not only did insect populations in general seem to be depressed, but I never succeeded in finding *D. pugionata* adults on the ninebark plants. I began to worry that the prescribed burns, while clearly beneficial to the glade flora, might have had a negative impact on the glade's insect populations.

I'm happy to report that, at last, I have found the beetles again. I returned to the glades in early May this year and, for the first time since 1987 I found the adults of this species—five in all (a typical number for the many dozens of plants checked) and right in the same areas where I had so consistently found them 25–30 years earlier. This does much to allay my concerns about the ability of these beetles to persist in the face of prescribed burning (though I remain convinced that this management technique [should be used more](#)

[judiciously](#) in our state's natural areas than it has in recent years), and I'm happy to have these new photographs of the species, which are a decided improvement over the [old scanned slides](#) taken nearly 30 years ago!

REFERENCES:

[MacRae, T. C. 1991.](#) The Buprestidae (Coleoptera) of Missouri. *Insecta Mundi* 5(2):101–126.

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

[Nelson, G. H., D. S. Verity & R. L. Westcott. 1982.](#) Additional notes on the biology and distribution of Buprestidae (Coleoptera) of North America. *The Coleopterists Bulletin* 35(2) [1981]:129–151.



Upside down bee fly

*Ted C. MacRae*⁴



Bombylius sp. cf. *mexicanus*, Charleston Church Camp Preserve, Scott Co., Missouri.

This has got to be one of the strangest photos I've ever taken. Three weeks ago after visiting [Sam A. Baker State Park](#) (and photographing the scorpionfly featured in [last week's One-Shot Wednesday post](#)), my dad and I visited a couple of sand prairie remnants in the Mississippi lowlands of extreme southeastern Missouri. I was hoping to see (and photograph) some individuals of the unique population of *Cicindela scutellaris* that occurs

⁴ Originally posted May 16, 2012 at the author's website: *Beetles in the Bush* (<http://beetlesinthebush.wordpress.com>). Photo by the author.

in that part of the state—apparently disjunct, this populations shows an intergrade of characters typical of subspecies *C. s. lecontei* to the north and *C. s. unicolor* to the south. I've [photographed this population](#) before, but those photographs were taken with a small (though quite good) point-and-shoot camera before I acquired my [current DSLR camera setup](#).

Unfortunately, temperatures were quite cool that day, and no beetles were seen at either of the two locations we visited where I've seen good populations in past years. When I don't find what I'm looking for, I start noticing other things, one of which was this very fresh-looking bee fly (order Diptera, family Bombyliidae) resting on the sandy ground. I've not really attempted to photograph many bee flies—they are as skittish and difficult to approach as the tiger beetles I adore but, unlike the latter, not a subject of my research and, thus, harder to justify spending inordinate amounts of time attempting photographs. This one, however, was sitting so nicely on the ground, and with no tiger beetles around to demand my attention I thought I would give it a shot (pun intended!). I carefully assembled my rig and slowly crouched down to attempt a photograph, but before I could get in position the fly spooked and tried to fly away. As it took off, however, it hit a plant and fell to the ground on it's back. As it laid there, seemingly stunned, I got myself into position and took a quick shot to make sure I had the settings and exposure that I wanted. In that regard, I couldn't ask for better, but of course what I really wanted was a photograph of the fly right-side up, resting on its feet rather than its back. Just as I was considering what to do next, the fly abruptly righted itself and flew away, leaving me with this single, rather unconventional photograph.

After perusing the [bee fly](#) pages at [BugGuide](#) I was fairly certain this was something in the tribe Bombyliini, with the genera [Bombylius](#) and [Systoechus](#) being the likeliest candidates. Apparently the location of the r-m vein on the wing is an important distinguishing character between these genera, but I wasn't quite sure about its location on the wing in this photograph. Nevertheless, some of the comments under the different species in these two genera suggested that members of *Bombylius* tend to be active as adults in the spring,

while those of *Systoechus* tend more towards fall. I sent the photo to dipterist [Joel Kitts](#) at University of Guelph for his opinion—he confirmed that it belonged to the genus *Bombylius* and suggested its appearance was consistent with that of [B. mexicanus](#)—many thanks Joel!



James F. Adams (1921–2012)

Paul Brockland

The Webster Groves Nature Study Society mourns the loss of James F. "Jim" Adams. Jim was a long-time member of WGNSS. He served on the Board as Historian, Secretary and *Nature Notes* Editor. As Historian, he compiled indices of all previous volumes, which he had bound for the archives located at the Missouri Botanical Garden. He researched the lives of former WGNSS leaders and published these biographies in *Nature Notes*, which he edited from September 2005 to December 2008.

Jim was a native of Longmott, Texas. After becoming a chemical engineer, he moved to Webster Groves and worked at Monsanto for 43 years. Jim was a long-time and significant Boy Scout leader. He began when his sons were Cub Scouts. He was the scout master of the troop at South Webster Presbyterian Church. After his sons were grown, he served on the Boy Scout Council's Historic Trails Committee. He was an avid hiker and contributed to the development of many of the council-sponsored hiking trails. He was also Editor of the Missouri Trail Association newsletter. In 2009 Jim was presented our society's Lifetime Achievement Award.



Seminars at St. Louis Zoo

Sandra Faneuff

The Academy of Science-St. Louis, in partnership with the Saint Louis Zoo, present the 2012-2013 Science Seminar Series with Science Seminars and Conservation Conversations, underwritten by Cooper Bussmann. Adults, teachers, middle and high school students, and the general public are

invited to attend these no-cost lectures on topical issues in science. Presentations are 7:30–9 p.m., The Zoo Living World Auditorium. No reservations required. For information on this event and other programs at the Academy of Science- St. Louis check their website: www.academyofsciencestl.org or call 314-533-8586.

CONSERVATION CONVERSATIONS

Monday, October 15, 2012

The Truth About Chimpanzees

Crickette Sanz, PhD, Co-Director, Goualougo Triangle Ape Project Assistant Professor, Physical Anthropology, Washington University in St Louis

David Morgan, PhD, Co-Director, Goualougo Triangle Ape Project Research Fellow, Lincoln Park Zoo's Lester E. Fisher Center for the Study and Conservation of Apes

For more than a decade, Drs Sanz and Morgan have co-directed the Goualougo Triangle Ape Project in Nouabale-Ndoki National Park, the Republic of Congo. It is one of a few sites in all of Africa to include focused studies on sympatric chimpanzees and gorillas. Their work includes research into social organization and material culture, as well as evaluating the impact of mechanized logging.

Join explorers David Morgan and Crickette Sanz as they share their groundbreaking discoveries about mankind's closest living relatives directly from the Congo. For the past decade, these primatologists have trekked the forests of the Republic of Congo's Goualougo Triangle to uncover truths about chimpanzees and their gorilla neighbors. Their research on ape behavior and the impact of logging in this eco-sensitive region are was featured in the February 2010 edition of National Geographic Magazine.

Tuesday, October 23, 2012

Tracking turtles from the volcanoes of Galapagos to Tyson and down town St. Louis

Dr. Stephen Blake

Stephen Blake has spent the last 20 years working in the tropics as a conservation ecologist. Most of that time was spent in the Congo Basin where he worked for the Wildlife Conservation Society in a variety of roles concerned with forest ecosystem

management and species conservation, notably forest elephants. In 2007, he had the opportunity to live and work in the Galapagos Islands, and for the last 3 years has worked on the movement ecology and conservation of giant Galapagos tortoises. Most recently Blake and colleagues from the St. Louis Zoo, WashU, and Forest Parks Forever have initiated a study of box turtles in Forest Park and the Tyson Research Centre. Dr. Blake works for the Max Planck Institute for Ornithology, based in Germany, but lives in St. Louis, and is an adjunct professor at UMSL, Adjunct Researcher at the St. Louis Zoo, and a visiting Scientist at Washington University in St. Louis.

Iconic Galapagos tortoises are the largest extant terrestrial reptiles which stimulated Charles Darwin's early ideas on evolution by natural selection. Despite their fame, the ecology and conservation status of Galapagos tortoises remains remarkably poorly understood. This talk will introduce an applied research programme that seeks to understand the movement ecology of Galapagos tortoises, during which long distance stereotypic seasonal migrations have been documented for the first time. The talk will also illustrate efforts to translate applied science into exciting conservation outreach and education for the children of Galapagos – the future stewards of the Islands. The talk will end with some discussion of the parallels between tortoises on Galapagos, and box turtles right here in St. Louis, and describe a sister programme to the Galapagos work for conservation, research and education of turtles that has been piloted in Forest Park and the Tyson Research Centre.



Group Activity/Walk Schedules

BOTANY GROUP

Chair—George Van Brunt

- **Monday Botany Walks**, Leader—Fr. James Sullivan; now in his **45th 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

Monthly meetings are held September through May and normally occur on the third Monday of the month.

- **Monday, October 22, 7:00 p.m.** This month the Entomology Group will gather to share a good laugh with Insect and Arthropod humor. Bring some of your favorite examples of insect and or arthropod humor. Butterfly House (Faust Park), 15193 Olive Blvd., Chesterfield.

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 the Evangelical United Church of Christ in Webster Groves on the second Tuesday of the month from 1:30-3:00 p.m. For more information and directions contact Lisa Nansteel at (636) 391-4898. All are welcome—especially newcomers!! Upcoming books:

- **October 9**—*Liquid Land* by Ted Levine
- **November 13**—*Feathers* by Thor Hanson
- **December 11**—*The Longest Winter* by Meredith Hooper

ORNITHOLOGY GROUP

Chair—David Becher

- **Saturday Bird Walks**, Leader—David Becher. All trips begin at 8:00 a.m. at Des Peres City Park parking lot (Ballas Road just north of Manchester Rd. and east of West County Mall) and continue through lunch. Everyone is welcome. The leader reserves the right to change the schedule if necessary. Contact David at (314) 576-1146 or DavidBecher@msn.com if you have questions.
- **Thursday Bird Walks**, Leader—Jackie Chain. All trips begin at 8:30 a.m. at Des Peres City Park. Contact Jackie at (314) 644-5998 or

chainjac@sbcglobal.net if you have questions.

If there is a change in meeting time or place, we will advise by posting on MOBIRDS.

For general information about WGNSS activities, contact Membership Chairman Joe Whittington at whittex@aol.com or (314) 645-3272.



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!

Table 1. LaBarque Creek Watershed Snail Survey, species by property data, September 2008–April 2011.

53 species	Location													Total	% Total
	RP	LCCA	LHS	JBP	HFFR	HYCA	SJI	OP	OKP	CP	RP	DHSD	WCC		
Anguispira alternata	91	137	13	20	16	58	44	39	7		12	3	440	6.91%	
Anguispira kochi	42	226	157	35		68	8	42	47	23	38	17	43	746	11.71%
Carychium exile	3	2				11							0	16	0.25%
Catinella avara	7	6					2					1	0	16	0.25%
Daedalochila dorfeuilliana	6	11	27	3	4	75	1	54	40				0	221	3.47%
Daedalochila leporina	4	1		4		15	4	4			2	5	2	41	0.64%
Deroceras reticulatum	2												0	2	0.03%
Discus patulus		18	1	37	1	34		2	20				5	118	1.85%
Euchemotrema fraternum	92	145	55	47	1	113	25	147	76	2	25	21	31	780	12.25%
Euchemotrema leai aliciae		3	8	1		9								21	0.33%
Euchemotrema leai leai		3	1											4	0.06%
Euconulus dentatus		1				1								2	0.03%
Euconulus trochulus	4	4	4	10	1	14		3						40	0.63%
Gastrocopta armifera	7	9	12	6	13	110		2	3		7			169	2.65%
Gastrocopta corticaria		14			6	3			1					24	0.38%
Gastrocopta contracta	3	11	7	26		24	2	9						82	1.29%
Gastrocopta pentodon	4	4		10	3	3		3						27	0.42%
Gastrocopta procera					2	4								6	0.09%
Gastrocopta tappaniana						3								3	0.05%
Glyphyalinia indentata	58	57	30	24	5	115	3	32	11		10	8	14	367	5.76%
Guppya sterki	2					6	5	2						15	0.24%
Haplotrema concavum	3	48	184	8	20	117	2	97	44	1			24	548	8.61%
Hawaii minuscula	9	5		11		34		3					3	65	1.02%
Helicodiscus notius	4		1			1		2			1	5	1	15	0.24%
Helicodiscus parallelus	26	12		6	1	12	2	7				1		67	1.05%
Infectarius infectus	77	167	164	29	13	197	19	151	38	10	43	1	30	939	14.75%
Mesodon clausus		1				3	1							5	0.08%
Mesodon thyroidus	10	38	20	8	5	19	5	12	12	10	2	12		153	2.40%
Mesodon zaletus	4	9	44	4	6	81		40	42			2	18	250	3.93%
Mesomphix capnodes	1	8	2			4			3					18	0.28%
Mesomphix friabilis	5	10	12	4	2	70		32	11			2	12	160	2.51%
Neohelix alleni	40	111	7	11	1	30	5	17	25	2	6	9	3	267	4.19%
Nesovitrea electrina	20	8	5	3	2	19	3				1	4	1	66	1.04%
Pallifera marmorea									1					1	0.02%
Paravitrea significans	3	5	1	5	2	28		6			1	3		54	0.85%
Phylomycus carolinianus	1											1		2	0.03%
Physa cf. gyrina						7								7	0.11%
Potamilus lapidaria						1								1	0.02%
Punctum minutissimum	19	17		5				3			1			45	0.71%
Punctum vitreum						1								1	0.02%
Pupoides albilabris			9		5	20			2					36	0.57%
Rabdotus dealbatus					53	26			13					92	1.44%
Striatura meridionalis	48	19	2	7		25	6	23				1		131	2.06%
Strobilops aenea	3	4	1		5	8	1	10				5	2	39	0.61%
Strobilops labyrinthica	31	50	1	9	6	23	4	15			3	1	4	147	2.31%
Triodopsis discoidea						5							14	19	0.30%
Vallonia excentrica						1								1	0.02%
Vallonia pulchella			17	4										21	0.33%
Ventridens ligera		1				1								2	0.03%
Vertigo meramecensis		5												5	0.08%
Vertigo tridentata						2								2	0.03%
Xolotrema fosteri			7					1						8	0.13%
Zonitoides arboreus	26	6	3	6		12		2	3			2	1	61	0.96%
Total snails/property:	655	1176	795	343	173	1413	142	760	399	48	152	101	211	6368	
Species/property:	32	36	27	27	23	43	19	28	19	6	15	19	18	53	
sites surveyed/property:	14	10	6	3	1	20	2	3	3	1	1	2	3	66	
hours surveyed/property:	104.9	90.5	68	13	4.5	91.9	27	43	29.5	11.25	15	24.75	11	534.3	
Snails/Hour collected:	6.2	13.0	11.7	26.4	38.4	15.4	5.3	17.7	13.5	4.3	10.1	4.1	19.2	11.9	

RP = Robinson Property; LCCA = La Barque Creek Conservation Area; LHSD = Lackwood Hills Subdivision; HFFR = Hwy FF roadside
 HYCA = Hylda young Conservation Area; SJI = St. Joseph Infirmary; OP = Oberkramer Property; OKP = O'Keefe Property; CP =
 Coffing Property; RP = Rice Property; DHSD = Dakota Hills Subdivision; WCC = Wild Canid Center