Kentucky Naturalist News

Official Newsletter of the Kentucky Society of Natural History

Volume 71 Number 2 Summer 2013

A Note from the President

Summer time greetings to everyone, I hope all of you are having a great summer, filled with all the joys and fun that summer brings. Whether its family barbecues, swimming, hikes in our beautiful natural areas, or family vacations; summer is a time for relaxation. It was great seeing everyone at Pine Mountain this spring. The spring conference was a great success, even if we did have some rainy weather.

Our fall conference will be October 18th – 20th, here in southern Ohio. Some "early bird" activities are being planned for during the day on Friday for those who would like to arrive on the 17th. The conference will be held at Shawnee State Park near Portsmouth, Ohio and we will be staying at the Shawnee State Park Lodge. The lodge is a beautiful facility featuring a variety of room styles, cabins, indoor swimming pool and game room, and a wonderful restaurant. There is also camping in the state park and several hotels in Portsmouth (approximately 15 miles away).

Shawnee State Park sits in the middle of the 63,000 acre Shawnee State Forest. Originally established in 1922 with the purchase of 5,000 acres of land which had been cut over for timber and ravaged by fire; Shawnee State Forest is now Ohio's largest continuous stand of forest. That same year, land acquisition was begun for the Theodore Roosevelt Game Preserve. In the 1930s, the Civilian Conservation Corps (CCC) had several camps in the forest and were responsible for the construction of many roads into the previously inaccessible area. The CCC also constructed five small lakes and the historic Camp Oyo Boy Scout Camp. Also called "The Little Smokies", Shawnee's natural beauty has attracted visitors for many years, especially during spring wildflower time and of course the fall color season. Hopefully fall color will be at its peak when we are there this fall.

Several of our field trips during the conference will be throughout the forest and also into the extensive nature preserves of Adams County, just east of the forest. My home county, boast approximately 20,000 acres of designated nature preserves. The largest of these preserves is the Edge of Appalachia Preserve System that is managed by the Cincinnati Museum of Natural History and the Nature Conservancy. Many of the key areas within the preserve were originally discovered by the infamous E. Lucy Braun. Lucy researched the eastern deciduous forest of United States for many years, and most of us are familiar with her exploits in Kentucky. Living in Cincinnati and teaching at the University of Cincinnati; Adams County was her "back yard". She did more research on plant communities here, than any other area. On some of our field trips we will be walking the in steps of Lucy as we explore this great natural area. Besides the extensive forest areas, Adams County is famous for its remnant prairies. With the conference being in October, many of the prairie plants will still be evident, especially the various tall grasses.

For more information on any of the areas we will be visiting this fall please check out the following websites:
Shawnee State Park, http://www.dnr.state.oh.us/parks/shawnee/tabid/788/Default.aspx
Shawnee Lodge and Conference Center, http://shawneeparklodge.com/
Edge of Appalachia Preserves, http://www.cincymuseum.org/nature

Registration for the conference is now open and a registration form is available on the KSNH website. Members should make their own reservations at Shawnee for their rooms. Information about room rates and contact numbers are available on the registration form and also on the lodge's website. I am in the process of putting together a great agenda and several local agencies including the Cincinnati Museum of Natural History, Ohio Department of Natural Resources, as well as several local naturalists. I hope to see you all this fall, have a great summer!

www.ksnh.org

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Arches of the Cumberland (Slade, Ky)
Meets informally, call President Dell Sasser for Details, 606-666-7521 ext. 73559, or 606-233-8938. Email: del.sasser@kttcs.edu

Falls of the Ohio (Louisville, Ky)
Meets every third Thrusday of each month except Jan, Jul, Aug & Dec at the Louisville Nature Center, 3745 Illinois Ave. Call President Chris Bidwell at 502 896 4834 or email: mach5049@gmail.com

Fall Conference 2013
Shawnee Forest State Park
Portsmouth, Ohio
October 18-20, 2013

In Remembrance

We wish to extend our condolences to longtime member, Judith McCandliss, on the death of her husband, Grady Edward Clay, Jr. who died on March 17.

Summer 2013 Falls of the Ohio Chapter

Our July picnic is on 7/18 from 6-9 at Jefferson County Memorial Forest.

From 4-6 there will be a walk at the "Chestnut Farm", a short 15 minute car-pool ride from the Visitor's Center and led by Cindy Payne.

Hope everyone has a great summer. Drive safely. Be aware of ticks – they are everywhere. Check after every outing. Remember good hiking shoes, camera, water, and friends will heighten any outing. Make plans for the Fall Conference at Shawnee. Watch the website for updates. Thanks for all your support for KSNH.

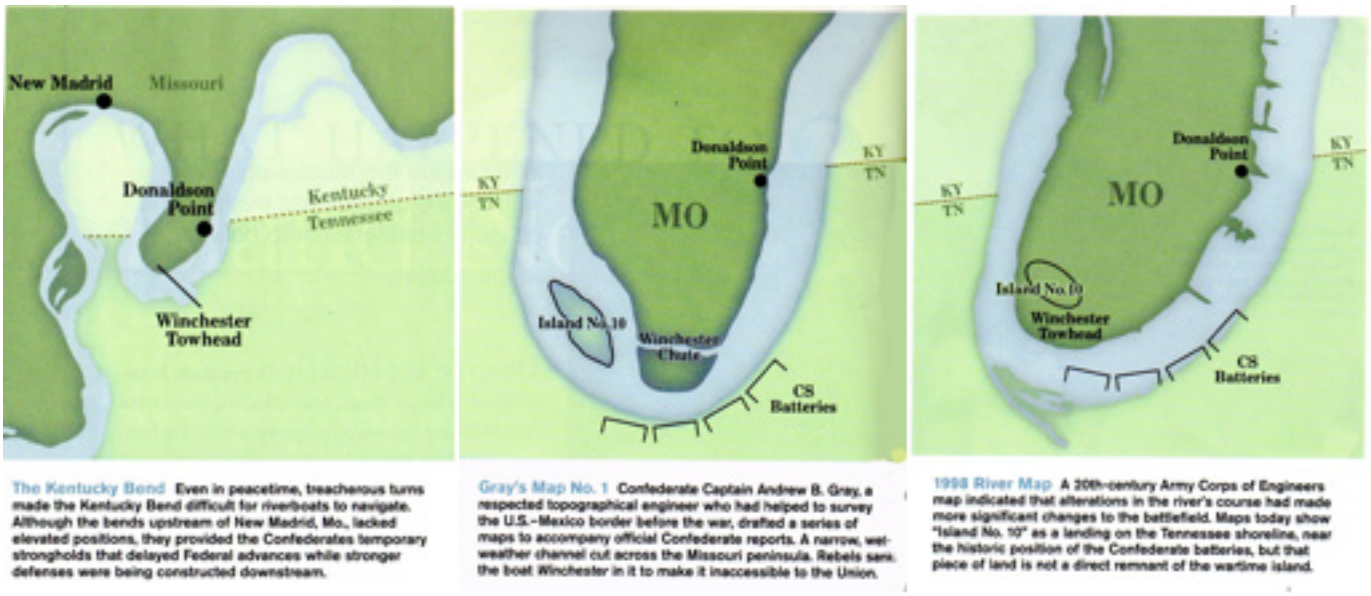
Chris Bidwell

Falls of the Ohio chapter president

Geology and Battle of Island #10

Berl Meyer-Contributor

Despite its location practically in the middle of the United States, Island No. 10 is perhaps the Civil War's most inaccessible major battlefield. The land¬scape looks much different today than it did 150 years ago, even though the property has never been developed. Over the last century and a half another battle has altered Island No. 10—one fought over time between man and the river. The river has won.



The Kentucky Bend Even in peacetime, treacherous turns made the Kentucky Bend difficult for riverboats to navigate. Although the bends upstream of New Madrid, Mo., lacked elevated positions, they provided the Confederates temporary strongholds that delayed Federal advances while stronger defenses were being constructed downstream.

Gray's Map No. 1 Confederate Captain Andrew B. Gray, a respected topographical engineer who had helped to survey the U.S.–Mexico border before the war, drafted a series of maps to accompany official Confederate reports. A narrow, wet-weather channel cut across the Missouri peninsula. Rebels sank the boat Winchester in it to make it inaccessible to the Union.

1998 River Map A 20th-century Army Corps of Engineers map indicated that alterations in the river's course had made more significant changes to the battlefield. Maps today show "Island No. 10" as a landing on the Tennessee shoreline, near the historic position of the Confederate batteries, but that piece of land is not a direct remnant of the wartime island.

The battle between blue and gray took place in the spring of 1862, when Union and Confederate forces faced off in a month-long stalemate along the Mississippi River just upstream from New Madrid, Mo. Within the side¬ways "S-bend" where the river snaked through the junction of Kentucky, Tennessee and Missouri, Confederates built a formidable series of river defenses. Unlike positions farther south, such as Fort Pillow and Vicksburg, these strongholds sat low to the river. Well-sited batteries along the shoreline and on Island No. 10 created a "kill zone" that deterred passage by even the vaunted Federal ironclads, and a vast surrounding area of lowlands and swamps protected against a direct assault by land.

On the river itself, Union naval forces under Flag Officer Andrew H. Foote dueled with the Confederate batteries, using new 13-inch mortar boats in an attempt to smash the defenses. Even after army forces under Brig. Gen. John Pope captured New Madrid on March 14, the defenses centered at Island No. 10 kept the Federals from opening the river bend. Through the remainder of March, Pope's engineers labored to clear a bypass canal around the troublesome defenses. Finally, after two of Foote's gunboats made a daring run past the position, the

Federals mustered sufficient combat power to cross over to the Tennessee shore. That move cut off the Confederate defenders and resulted in their surrender on April 8.

At a cost of fewer than 100 casualties, Pope and Foote had untied the first knot in the critical campaign to open the Mississippi. The low cost of their victory was in striking contrast to the butcher's bill being compiled nearby at Shiloh. The triumph at Island No. 10 also served to boost the fortunes of Pope, who was reassigned to the Eastern Theater-and ignominy at Second Bull Run—months later.

The Union engineering operations around Island No. 10 were just the beginning of several significant alterations to the landscape. The sharp bend in the Mississippi was notoriously difficult to navigate, and the Army Corps of Engineers built a series of levees and flood control structures in an effort to manage the river.

The Mississippi's course now cuts deeper into the waterway's bends, covering many of the Confederate positions. Despite these alterations in the terrain, however, a 2011 American Battlefield Protection Program study estimated that 37,000 acres of core battlefield area remained intact. The "Big Muddy" might still have something to say about that.

Craig Swain writes from Leesburg, Va. Check out his blog, "To the Sound of the Guns."

Island #10 Sign on the Tennessee Side


Our KSNH Group that journeyed with Berl Meyer on the New Madrid Trip.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Wolf Creek National Fish Hatchery

50 Kendall Road

Jamestown, KY 42629

2013 SCHEDULE OF EVENTS

June 1: 27th Annual Kids Fishing Derby 9 – 3 PM CST
June 11: Friends of Wolf Creek NFH, Inc. Meeting 1- 2 PM CST (Russell County Tourist Commission)
June 18: Family Nature Club: Bird Beak Buffet 5 – 6:30 PM CST
June 24: Longest Day of Play 8:00 a.m. –1 0 a.m. CST

July 2: Family Nature Club: You Grab The Line, I'll Grab the Pole 5 – 6:30 PM CST
July 9: Friends of Wolf Creek NFH, Inc. Meeting 1 – 2 PM CST

August 10: Project WET Training 9am-3:30/4pm CST
August 13: Friends of Wolf Creek NFH, Inc. Meeting 1 - 2 PM CST (Russell County Tourist Commission)
August 20: Family Nature Club: Lost in the Woods 5 – 6:30 PM CST

September 3: First of the Year Meeting 4-H Fishing Club 5 – 6:30 PM CST
September 10: Friends of Wolf Creek NFH, Inc. Meeting 1- 2 PM CST
September 11: 2nd Annual Wounded Warriors Fishing Derby
September 17: Family Nature Club: Group Initiatives 5 – 6:30 PM CST
September 24: 6th Annual Catch A Smile Senior Fishing Derby
September 25: 6th Annual Reaching for Rainbows Special Needs Kids Fishing Derby

October 1: 4-H Fishing Club: Biologist-in-Training 5 – 6:30 PM CST
October 5: Movies at the Hatchery: Earth 10 – 12 PM CST
October 8: Friends of Wolf Creek NFH, Inc. Meeting 1- 2 PM CST (Russell County Tourist Commission)
October 15: Family Nature Club: Micro-World 5 – 6:30 PM CST
October 15: Russell County 4th Grade Outdoor Eco Adventure Day 9 – 1:30
October 26: Hatchery Fall Fest 6 – 8 PM

November 2: Movies at the Hatchery: A Sense of Wonder 10 – 12 PM CST
November 5: 4-H Fishing Club: Fish Ecology 5 – 6:30 PM CST
November 12: Friends of Wolf Creek NFH, Inc. Meeting 1-2 PM CST
November 19: Family Nature Club: Cooperative Compass 5 – 6:30 PM CST (Russell County Library)

December 3: 4-H Fishing Club: Guest Speaker 5 – 6:30 PM CST
December 7: Movies at the Hatchery: Winged Migration 10 – 12 PM CST
December 10: Friends of Wolf Creek NFH, Inc. Meeting 1-2 PM CST (Russell County Tourist Commission)
December 17: Family Nature Club: Night Hike 5 – 6:30 PM CST (Russell County Library)

**All events take place at Wolf Creek National Fish Hatchery unless specified. No payment required.

For more information or pre-registration on any of the above mentioned programs, please contact:

James Gray, Project Leader

270-343-3797

James_gray@fws.gov

Pitcher Plants

Compiled by Dave Luzader

Pitcher plants are carnivorous plants whose prey-trapping mechanism features a deep cavity filled with liquid known as a pitfall trap. It is widely assumed pitfall traps evolved by epiascidiation (infolding of the leaf with the axadial or upper surface becoming the inside of the pitcher), with selection pressure favoring more deeply cupped leaves over evolutionary time. The pitcher trap evolved independently in three eudicot lineages and one monocot lineage, representing a case of convergent evolution. Some pitcher plant families (such as Nepenthaceae) are placed within clades consisting mostly of flypaper traps, indicating that some pitchers may have evolved from the common ancestors of today's flypaper traps by loss of mucilage.
Foraging, flying or crawling insects such as flies are attracted to the cavity formed by the cupped leaf, often by visual lures such as anthocyanin pigments, and nectar bribes. The rim of the pitcher (peristome) is slippery, when moistened by condensation or nectar, causing insects to fall into the trap. Pitcher plants may also contain waxy scales, protruding aldehyde crystals, cuticular folds, downward pointing hairs, or guard-cell-originating lunate cells on the inside of the pitcher to ensure that insects cannot climb out. The small bodies of liquid contained within the pitcher traps are called phytotelmata. They drown the insect, and the body of it is gradually dissolved. This may occur by bacterial action (the bacteria being washed into the pitcher by rainfall) or by enzymes secreted by the plant itself. Furthermore, some pitcher plants contain mutualistic insect larvae, which feed on trapped prey, and whose excreta the plant absorbs. Whatever the mechanism of digestion, the prey items are converted into a solution of amino acids, peptides, phosphates, ammonium and urea, from which the plant obtains its mineral nutrition (particularly nitrogen and phosphorus). Like all carnivorous plants, they grow in locations where the soil is too poor in minerals and/or too acidic for most plants to survive.
The North American genus Sarracenia are the trumpet pitchers, which have a more complex trap than Heliamphora, with an operculum, which prevents excess accumulation of rainwater in most of the species. The single species in the Californian genus Darlingtonia is popularly known as the cobra plant, due to its possession of an inflated "lid" with elegant false-exits, and a forked "tongue", which serves to ferry ants and other prey to the entrance of the pitcher. The species in the genus Sarracenia readily hybridize, making their classification a complex matter.

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Reference source: http://en.wikipedia.org/wiki/Pitcher_plant

Smallpox Cure ?

In the late 1800s, it is believed that the Micmac Native Americans of Nova Scotia used an herbal remedy—a botanical infusion derived from a species of the pitcher plant—to treat smallpox, reported Chemistry World, a publication that features important research published in Royal Society of Chemistry(RSC) journals.
Now extracts of the plant could serve as a crucial defense in the event of biological warfare.
Through in vitro experiments,Jeffrey Langland, co-chair of the research department at Arizona State University in Tempe, and his colleagues have discovered this botanical extract inhibits replication of the variola virus, which causes the contagious disease.
"There is much skepticism on herbal medicine but what our results illustrate conclusively is that this herb is able to kill the virus and we can actually demonstrate how it kills the virus," Langland told Chemistry World. "It takes this herb out of the realm of folklore, and into the area of true scientific evidence."
While the World Health Organization declared smallpox eradicated in 1979, the remote possibility exists that terrorists groups could have acquired stocks of the virus following the 1991 collapse of the Soviet Union, which

developed smallpox as a biological weapon during the Cold War,BBC reported.
Dr. Kanatjan Alibekov, also known as Ken Alibek, the chief scientist at Biopreparat (the Soviet Union's former major biological warfare agency) from 1987 to 1992, later revealed to Central Intelligence Agency (CIA) officers that "unemployed or badly-paid scientists are likely to have sold samples of smallpox clandestinely and gone to work in rogue states engaged in illicit biological weapons development," states BBC. According to Alibek, the Kremlin Guard Force (KGB) understood that once eradicated, the smallpox virus had the potential to be "the most powerful and effective weapon ever created to eliminate human life."
While smallpox vaccinations can be and still are administered to at-risk groups including some members of the U.S. military and researchers working with pox viruses, the serious side effects of the vaccine make it hard to justify administering to everyone,Chemistry World reported. "Developing therapies is therefore important in order to treat people if a bioterror event does occur," the publication states.
"With smallpox, it is obviously impossible to see if this herb is effective in the human body unless a bioterror release of the virus occurs," Langland told Chemistry World. "We are in the process of doing animal studies to confirm our results in at least this type of whole animal system."

Read more at http://indiancountrytodaymedianetwork.com/article/native-american-smallpox-remedy-could-be-instrumental-in-event-of-bioterror-attack-104166

We'd like to welcome the newest members to the Kentucky Society of Natural History.

William Napper

Sarah McCartt

Charles & Hotensia Mayer

Carol Hyatt

Walter Borowski

Micah Perkins

Cody Elmore

Steven Price

Wild Comfrey – Cynoglossum virginianum (L)

Photo by Susan Wilson

Wild Comfrey is one of those spring wild flowers that gets little notice. Although it is frequent in Kentucky most hikers overlook this beautiful plant as its pale blue-lilac flowers can easily be missed. Sometimes spelled comfry or comphry, wild comfrey is a native perennial found primarily in the eastern United States – mainly centered in Kentucky and Tennessee and their surrounding states. Found in forest areas in the open understory where low temperature and low competition allows it to thrive. It does well in full sun to partial shade in rich soil. Wild comfrey is an erect unbranched plant that has hairs on the stem and leaves. It can reach a height of up to 36 inches. The lower petioled leaves in a basal rosette are oblong and can be up to 8 inches long while the upper leaves are lanceolate and clasp the stem. The beautiful deeply 5-lobed flowers are up to ½ inch wide on short racemes which often droop. Wild comfrey flowers are well above the leaves and their color can vary from pastel blue, pale blue, lilac, blue-violet to almost white. It blooms early April to early June. Prickly seed pods have 1 - 4 nutlets and are "hitchhikers" on animal fur and human clothing.

Wild comfrey (Cynoglossum virginianum) was given its binomial name by Linnaeus. In the borage or forget-me-not family of plants. The name borage has many reported etymologies but most references cite it from the Latin "borra", which means rough hair or short wool in regards to the wild comfrey's hairy foliage. The genus name Cynoglossum is from the Greek: "cynos", of a dog and "glossa", tongue and refers to the rough dog-tongue shaped basal leaves. Wild comfrey's species name – virginianum – means of or from Virginia, where comfrey was first recorded and named in honor of the English "virgin queen", Elizabeth I (1533-1603). Wild comfrey, the common name, also has several reported sources: Latin (confirma), Middle English (cumfirie), and French (cunfirie). All these roots mean to heal, unite, or grow together in reference to wild comfrey's usage in healing broken bones.

Wild comfrey has several other common names based on its medicinal usages or appearances. Cited examples include small wild bugloss, consolida, houndstongue, houndstooth, dog's tongue, heal all, ass ear, boneset, bruisewort, gumplant, knitbone, beggar's lice, beggar-ticks, sheep bur, dog bur, dysentery root, dysentery weed, soldier's sticktight, Virginia mouse ear, Virginia sticktight, winged pigweed, and woodland hound's tongue.

The medical usages of wild comfrey are varied and quite interesting. Used by the Cherokee our native wild comfrey (C. virginianum) was used as a poultice for burns, a demulcent, a sedative for coughs, a catarrh, and for hemoptysis. Other usages included dysentery, broken bones, diarrhea, goiter, scrofulous tumors, ulcers, anti-inflammatory, pain killer, kidney ailments and "milky urine". Dried leaves were smoked like tobacco. A root tea was used for body itching, cancer, genital rash, and gonorrhea. A root syrup was used for cloudy, odiferous urine. Wild comfrey was even used as a fish poison. Based on the Doctrine of Signatures, wild comfrey's "viper" shaped seeds were used to treat snakebites and a decoction of these "hooked" seeds was used to improve memory. Herbalists have used this plant to treat similar conditions including digestive and respiratory ailments.

In folklore wild comfrey was used as a love charm. The clinging seeds/seed pods were believed to attract and keep one's love close at heart. The dog-tongue shaped leaf, if worn in a shoe, was to ward off dog attacks and rabies. Wild comfrey, stowed in luggage, would bring safety to travelers by warding off evil and danger. Wild comfrey, also placed in luggage, was to prevent theft or loss – this may help next time you air travel! Wild comfrey is astrologically controlled by Saturn and Capricorn.

Nutritional usage includes young tender leaves cooked as greens or used in a salad. Dried leaves make a tea. Supposedly Abraham Lincoln said, "My mom used to say it (wild comfrey) made a good tea but I don't know what for. It has a pretty flower."One of the assumed fantastic usages of wild comfrey and the reason that I chose to write about this plant was an old belief, originating in Europe, where a bride-to-be was to bathe in a wild comfrey bath before marriage in order to restore her hymen and thus ensuring or restoring her virginity! This custom survived many decades despite a 100% failure rate.

Using common names of plants for medical, herbal, dietary, or folklore purposes can be confusing and lead to fatal results. In the case of wild comfrey there are two other borage family plants often referred to as "comfrey" or "wild comfrey". These two Asian/European aliens were introduced to America in the 18th-19th centuries

for their supposed medical assets. These exotics are Cynoglossum officinale (hound's tongue) and Symphytum officinale (comfrey or Old World comfrey). Both are also called "wild comfrey" and thus can be mistaken as to which plants are to be discussed for usage. The non-native comfreys are loaded with pyrrolizidine alkaloids which have proven to cause fatal pancreatic and liver cancers. Since July 2001, the FDA and Federal Trade Commission banned any internal usage, external usage on open wounds, and usage while pregnant of products containing these alkaloids. Products with "comfrey" and these pyrrolizidine alkaloids have been removed from the commercial United States market. Herbalists/self-practitioners from the 19th century through today suggest our wild comfrey (C. virginianum) be used (erroneously) as a substitute for these two exotics. Our native wild comfrey is also on the FDA poisonous plant database. A search of the literature however has not shown any human fatalities from eating, drinking, or smoking the leaves of our native wild comfrey. The only side effect documented with our wild comfrey is a contact dermatitis some people get from handling the plant's hairy stems and leaves. As our "wild comfrey" is in the borage family with its toxic alkaloids, it is best to avoid any usage – especially if it is to be taken internally. Depending on which "wild comfrey" is being suggested for any usage, make sure which genus-species is actually being discussed. Using the wrong (exotic) "wild comfrey" for even short periods or in low dosages can be fatal. One other caution, the leaves of our native wild comfrey can be confused with Digitalis purpurea (foxglove) which contain powerful/toxic levels of the cardiac glycoside – digitoxin that can cause death from ingestion.

Wild comfrey (C. virginianum) like many native wildflowers is threatened by habitat loss through, logging, development, climate changes, fire suppression, and theft. Wild comfrey is of special concern in Connecticut and endangered in Florida and Maine. Wild comfrey can be propagated easily from seeds sown outdoors in the fall. If sowing indoors, seeds must be stratified. Seeds may be collected after the flower has faded. Properly cleaned and allowed to dry, seeds can be efficiently stored. In the wild, ants play a major role in the propagation of wild comfrey. The seeds have a fleshy-nutritious structure (elaiosome) attached to them which is rich in lipids and proteins The ants take the seeds with their elaiosomes to their colonies and feed it to their larvae. The seed is taken to the ant's waste area which is rich in nutrients from the ant's frass and the wild comfrey seeds can germinate. This symbiotic type of seed dispersal is myrmechory, from the Greek for ant (myrmex) and dispersal (kore).

Our wild comfrey is a beautiful and interesting late spring wildflower. As with all our native wildflowers they should be respected, protected, and admired. Marvel at its structure and delicate blue flower color. Be astonished at its recommended medical and folklore usages. BE advised, however, this beautiful plant may/can be toxic. For brides-to-be, a one-time wild comfrey bath would be okay!

Chris Bidwell
KSNH Falls of the Ohio Chapter president

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The KHLCF protects another 2,000 acres

Dennis Benge, will protect more than 1,800 acres. Benge bequeathed $200,000 to the Kentucky State Nature Preserves Commission because of his love of nature and wildlife; the commission then directed the money towards this purchase.

At least four federally listed species are found on the site—the blackside dace and the Cumberland arrow darter are fish found only in this region, as well as the Cumber- land elktoe and Cumberland papershell mussels. According to KNLT Executive Direc- tor Hugh Archer, there is at least one endemic cave beetle found here and may be other species unknown to science in the remote area. Habitat for the federally endangered Indiana bat is also found along Pine Mountain and potentially protected by this acquisi- tion.

Laurel Fork is part of the larger Pine Mountain project area; the KHLCF and KNLT have worked with several agencies to protect thousands of acres along Pine Mountain in Whitley, Bell, Harlan, Letcher and Pike counties. Archer Benge is the eighth state na- ture preserve on Pine Mountain and the 61st state nature preserve dedicated in Kentucky.

The KHLCF is funded in part by the sale of "Nature's Finest" license plates. For more information, visit http://heritageland.ky.gov or contact Zeb Weese at 502-573-3080.

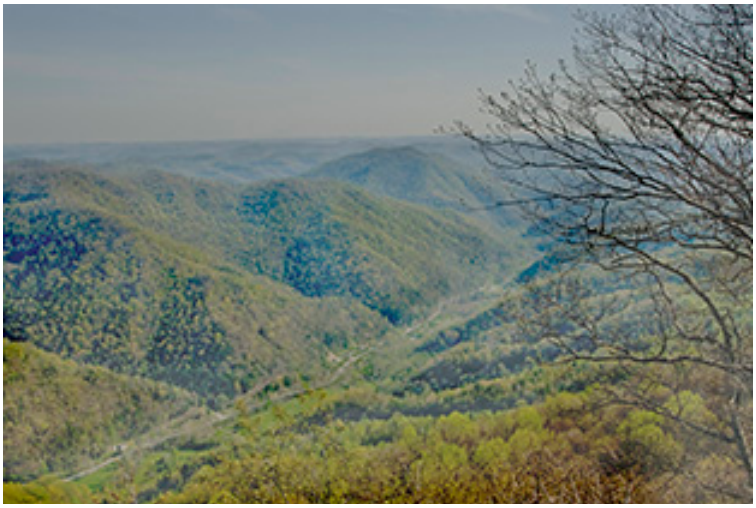

Photo by Dave Luzader

Notes from the Nature Nut – Summer 2013
By: W. H. (Wally) Roberts

During mid-May, our friends Doris and Tom Mattingly, and Karen and I decided to take a trip to observe plants and birds at Minor Clark Fish Hatchery, Clack Mountain, and Carter Caves State Resort Park. We stayed in one of the new cabins at Carter Caves; but, on the way, we stopped to do some birding at the Hatchery near Morehead.

The Minor E. Clark Fish Hatchery is operated by Kentucky Department of Fish and Wildlife Resources. It is the second largest hatchery in the United States. The 300 acre hatchery has 124 acres of water divided among 100 ponds. Nearby Cave Run Lake provides the hatchery with as much as 8000 gallons of water per minute.

The Hatchery is one of the premier birding spots in Eastern Kentucky. I always watch for raptors, shorebirds, wading birds, waterfowl, and swallows, bald eagles, and osprey. When visiting in the fall and winter, make sure to check the empty ponds for pectoral, spotted, and least sandpipers, lesser yellowlegs, semipalmated plovers, and killdeer. Great blue herons, little green herons, and wood ducks are abundant during season. The Hatchery grounds are open year round during daylight hours.

After birding, we stopped for lunch in Morehead and headed to Carter Caves. The cabins at Carter Caves are very nice and are tucked into the woods on fall-a-way lots. They have two bedrooms and baths, full kitchens, great rooms, fire-places, and exceptional covered porches from which you can observe nature including a large population of red-head-ed woodpeckers.

During our trip, we returned one early morning to the Hatchery to observe birds, listen for spring breeding bird choruses, and have a picnic style breakfast. I decided to return to Morehead via Clack Mountain to bird and observe spring wildflowers. Both turned out to be exceptional that day. We recorded many more spring warblers, saw many wildflowers including a surprisingly large patch of small yellow lady-slippers.

On the way home, we stopped at Cracker Barrel Restaurant in Morehead for breakfast and, fortunately, encountered long time KSNH life members, Foley and Margarette Partin who live in Clearfield which is just outside Morehead. I'm sure many of you remember the Partins as they were very active members of KSNH who, along with friends, attended many KSNH Conferences, especially those at Pine Mountain.

Foley told me that he is 82 years young and no longer able to attend activities, but he still looks forward to reading The Kentucky Naturalist News. Margarette is still as gracious as ever, but admits to having some health issues of her own. They asked that we extend their best wishes to all KSNH members and, as always, encouraged us to continue with the work of promoting Kentucky's good nature.

The American Goldfinch

The American Goldfinch is an abundant and widely distributed species in temperate North America, common in summer in weedy fields, river flood plains, early second growth forest, and orchards and suburban gardens—habitats where they find their major foods and suitable nesting sites. As the breeding season wanes, flocks form as the birds enter the autumn (Prebasic) molt and prepare to move to winter habitats. Many northern populations migrate, with the occurrence and extent of migration varying with sex, age, and latitude. Wintering flocks are nomadic, their movements closely tied to food supply. During the winter months the species is common at bird feeders.

The American Goldfinch is both sexually and seasonally dimorphic. The males in their bright yellow summer plumage are a familiar sight, but the less brightly colored females are often overlooked. Both sexes are frequently misidentified in their muted winter plumages. The difference between winter and summer plumages is the most striking of any of the cardueline finches and results from a spring (Prealternate) body molt, unique among carduelines.

This goldfinch is also unusual because it is one of the latest breeders of all temperate zone passerines. In the East, it normally waits to nest until late June or early July. Although the cause of this delay is not well understood, there is a close relationship between the flowering of thistles (Cynareae), an important food plant, and the start of nest building. In addition, the physiological effects of spring molt may prohibit early nesting.

This goldfinch's nesting season is a short one. In the East, the last eggs are laid in mid-Aug. As a result, most pairs have time to produce only one brood in a season, although experienced breeders frequently produce two broods if eggs are laid early and the first brood is successful. To permit such second nestings, a female abandons the first brood to her mate, and then leaves to find another mate.

The American Goldfinch is almost exclusively granivorous. It consumes little insect matter, even when feeding nestlings, suggesting that the species is well adapted to obtaining its protein requirements from a seed diet. This diet may explain why the Brown-headed Cowbird (Molothrus ater) fails to survive in goldfinch nests. Even though cowbirds hatch successfully, their growth is retarded and almost all die before they can leave the nest.

Recent interest in this species has centered on the control and function of its striking yellow plumage and orange beak coloration. These colors are derived from carotenoid pigments, which birds and all other vertebrates acquire from their diet. Females prefer to mate with males that exhibit the brightest colors and thus may acquire the most skilled foragers in doing so. The American Goldfinch is also well-known for its susceptibility to the mycoplasmal conjunctivitis outbreak, which has infected and killed many members of its cardueline finch relative—the House Finch (Carpodacus mexicanus)—in the Eastern United States but has had relatively few other wild bird hosts. Finally, it has become a model species for studies of physiological responses to cold tolerance and of grassland-bird sensitivity to habitat disturbance and pesticide use.

Recommended Citation

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