



Shawnee Trails

News of the Shawnee Group — March 2003

March Member Program: Butterfly & Moth Gardening in Illinois



Join fellow Sierra Club members on March 13th at 7:30 PM for a slide presentation on Butterfly and Moth Gardening in Illinois by Sue Dees, biologist with the Illinois Department of Transportation. The meeting to be held at the Unitarian Fellowship will be preceded by dinner at 5:45 PM at Murphy's Bar & Grill in Carbondale.

Approximately 2,000 species of butterflies and moths, members of the insect Order Lepidoptera, are found in Illinois. Of this number, 150 species are butterflies and 1,850 species are moths. The lepidopterans (from the Latin lepidō for scale and ptera for wing) represent one of the largest groups of insects. It is a very important group economically because of its association with plants. In their caterpillar stage butterflies and moths eat plant parts and in their adult stage pollinate flowers. These insects are food resources for many birds, mammals, and other arthropods. Numerous species serve as indirect indicators of habitat quality. For example, if the plant species upon which they depend are becoming scarce, these insects may also become fewer in number.

Additional Web Resources:

- [Butterflies of Illinois](http://www.npwrc.usgs.gov/resource/distr/lepid/bflyusa/il/toc.htm)
- [Butterflies at The Field Museum](http://www.fmnh.org/butterfly/default.htm)
- [Field Guide to Butterflies of Illinois](http://www.inhs.uiuc.edu/chf/pub/surveyreports/winter-01/guide.html)

In This Month's Issue:

- Butterfly and Moth Gardening in Illinois 1
- Outings Calendar; Adventure Guide 2
- **ALERT: National Forest Plans Threatened by G.W. Bush Proposals!** 3
- Insect Expo South and Volunteers Needed to Assist with Frog and Toad Surveys 4
- Geology of the Shawnee National Forest 5
- Bonus Poster: Victory Garden 7
- Volunteers, Web Resources & The Monthly Quote **Back**

Event Calendar

- March 9** – Hike: Draper Bluff, Cedar Bluff, & Goreville Falls
- March 13** – Membership Meeting @ Unitarian Fellowship at 7:30 PM
- March 14** – Hike: Bradshaw Creek in Union County.
- March 20** – EXCOM Meeting
- March 22** – Noon Deadline for Newsletter Content.
- March 27** – Newsletter Folding @ Don's, 5:30 PM

Alaska Wilderness Program in March To Be Announced

Watch your mail for a special announcement of an important meeting to be held in Carbondale during the middle of March on protecting the Arctic National Wildlife Refuge — America's Last Great Wilderness.



Outings Calendar

See outing updates at <http://illinois.sierraclub.org/shawnee/outings/outings.htm>

SHAWNEE GROUP OUTINGS

March 9 ~ DRAPER BLUFF, CEDAR BLUFF, GOREVILLE FALLS. Carpool leaves the Murdale Shopping Center sign at 12:30 and 1 PM from the Marion Wal-Mart parking lot (nearest to Ryan's Restaurant). We will drive to each location, with a moderate hike of approximately one mile at each site. Significant features include viewing of tall cliffs, rock formations, shelter bluffs, and a waterfall. More info: contact Bob Tyson at 684-5643.

March 14 ~ BRADSHAW CREEK. Sue Dees and Laurel Toussaint will lead this hike at the Ittis/Fletcher Farm on Wing Hill Road in Union County. Meet at 10 AM at #1 Pinewood (intersection at Tower Road) in Carbondale. Call Laurel, 351-0069 for directions to the hike location. Participants are encouraged to bring a lunch and high rubber boots. The boots will be necessary for crossing the stream at this time of year.

NON SIERRA CLUB OUTINGS

Both hikes start at 10 AM and are sponsored by the River-to-River Trail Society. Contact John O'Dell at 252-6789.

March 8th ~ Saltpeter Cave/Lusk Creek Canyon Hike. Meet at the Mitchellville, IL store. (RT 145 south of Harrisburg)

March 15 ~ Hays Creek to Peter Cave Hike. Meet at the Mitchellville, IL store. (RT 145 south of Harrisburg)

March 29 ~ Crest Trail Hike Meet at Glen O. Jones Lake.



Adventures with Uncle Bob

See <http://illinois.sierraclub.org/shawnee/unclebob/adventures.htm>

Your Monthly Guide to Self-Adventure with Bob Tyson

Lusk Creek Wilderness Area

Directions: Take hwy 145 south from Harrisburg to Eddyville. Turn left onto the Golconda blacktop and turn left at the first gravel road. Follow this road to the signed parking lot.

You will walk east for 1.5 to 2.0 miles past pine plantations and a crossroads having a north spur to the River-to-River Trail. This trail is no picnic when the ground is wet. We arrive at a stone glade, high above the canyon. Walk to the right along the cliff edge until you see a narrow path below you that leads to a small cave inside a cliff wall. Here is an unobstructed view of the 100 foot deep canyon. Return to the glade and head steeply downhill to the edge of Lusk Creek and view the hair-pin shaped wall. At this point you can retrace your steps back to the parking lot, or go right on the trail (note the hitching post for horses) in a northwest direction. Watch the creek until you see a place to cross on stepping stones. Upon doing so, walk to the right (no trail) until you see a limestone bluff line to explore some nice rock formations and bluff shelters. Return back across the creek. You could continue on the right to the River-to-River Trail.

Another access point to Lusk Creek is to by-pass the parking lot and follow the road to the end where there used to be a bridge, and just start your hike along the creek (no defined trail). Another suggestion is to go north of Eddyville to CR 100 and the sign for Circle B Ranch. Take that road to the parking area trailhead. Here you will find the River-To-River trail which connects to the north end of town to the west, and going east takes you through the north end of the wilderness. Continuing in this direction will bring you to the trailhead at Concord Cemetery. Lusk Creek contains 800 species of ferns and flowering plants including *Turks Cap Lily*, *Hay Scented Fern*, and *Arching Dewberry*. Trees on the ridge include 5 kinds of Oak trees.



Recycle Those Backpacks

Still have a backpack and unable to hike anymore? Upgraded your hiking gear and have a spare backpack? The Salvation Army store in Carbondale (near Main and Illinois Avenue) needs backpacks for homeless people. If it is not convenient to drop it off at the store, bring it to the next Shawnee Group membership program meeting.



ALERT: ENVIRONMENTAL REGULATIONS AND PUBLIC RIGHT TO COMMENT ON NATIONAL FOREST PLANS THREATENED BY BUSH PROPOSALS!

The U.S. Forest Service, under the Bush administration, is attempting, through the rulemaking process, to radically change the way in which the National Forest system makes management decisions. If the administration implements all of its proposed draft rules, then most management decisions – everything from forest plan revisions to logging proposals – will be exempt from environmental impact studies and public comment. WE NEED YOUR HELP TO STOP THIS! Your comments are needed by March 6, 2003

Perhaps the most extreme of the proposals is the new "National Forest Management Act" regulations. These regulations govern how national forests develop new forest plans. Most of our national forests, including Shawnee National Forest, are in the process of writing new forest management plans. The planning process will be governed by the new regulations. Some of the major points in the planning regulations that we disagree with and we urge you to oppose are:

1. The new regulations propose to allow a national forest to use a legal loophole in the requirements of the National Environmental Policy Act (NEPA) to avoid preparing environmental impact studies and taking public comment on the entire revisions of forest plans. This flies in the face of 20 years of national forest policy that required such studies and repeated public involvement in forest plan development.
2. The new regulations do away with the current strict requirement that national forests provide sufficient habitat to maintain "minimum viable populations" of native vertebrate species. Instead, the new regulations provide loopholes for this requirement which have the effect of gutting them. These loopholes will allow species such as the Cerulean Warbler or Red Shouldered Hawk, which are not yet federally listed, to lose their protective status in national forests. This will drive them to federal listing faster than if the national forest system is required to protect their habitat prior to listing.
3. The new regulations allow for "interim forest plan amendments" that could be put in place for four years without public comment. This dangerous regulation could allow for a series of environmentally damaging projects through "interim" forest plan amendments without any environmental impact studies or public comment.
4. The new regulations provide a loophole where a national forest can approve and implement projects that are inconsistent with a current forest plan.
5. Finally, the new regulations only give parties 30 days to review final forest plans and file administrative objections to the plan. As plans are often hundreds of pages, this puts a heavy burden on reviewers to drop everything they are doing at the time and review these plans.

When these regulations are added to proposals to create new loopholes to do timber sales, prescribed burning, road building, approval of ORV trails, and other questionable management activities without environmental studies and public involvement, it becomes clear what this administration's interests are – to allow industry to exploit our national forests to the maximum while keeping public opposition to a minimum.

Please send your comments on these proposed regulations. Send written comments to: USDA FS Planning Rule, Content Analysis Team, P.O. Box 8359, Missoula, MT 59807; via mailto:planning_rule@fs.fed.us ; or by FAX: Planning Rule Comments at (406) 329-3556. Comments are due by March 6, 2003.

Original alert material provided by Mark Donham ☩

Sierra Club Board Passes Iraqi Aggression Resolution

"The Sierra Club is concerned about the global dangers presented by possible Iraqi aggression and about the dire environmental consequences of war. The Sierra Club supports disarming Iraq of weapons of mass destruction. The Sierra Club commends the US and the other United Nations Security Council members for their unanimous resolution calling for the restoration of the disarmament inspections process as a means of achieving a peaceful resolution of the Iraq issue, and it urges all nations to work through the UN to achieve this objective. The process of inspection should go forward immediately with, and pursuant to, international consensus as expressed in the UN Security Council resolution.

Even if the UN succeeds, however, this process will be incomplete if the US and other nations fail to recognize that their continued dependence on oil and other fossil fuels is, itself, a significant de-stabilizing influence in international affairs. The Sierra Club therefore reaffirms its urgent call for the US to move to a clean energy economy, greater efficiency, and use of renewable sources of energy."

Insect Expo South - March 27, 2003

Submitted by Phyllis Oliver

The Illinois Natural History Survey, Cypress Creek National Wildlife Refuge, Illinois Department of Natural Resources and Regional Office Education will facilitate Insect Expo 2003 and we need your help. This unique event includes 30 interactive exhibits, special performances of Insect Theater and opportunities for students to get close up and personal with a variety of multi-legged critters. The first year of the event attracted 3,000 students (grades K-8 from southern Illinois). It was a huge success due to numerous volunteers.

Volunteers are needed to assist us this year with interactive exhibits that feature topics like The Predator Game, Insect Tattoos, Water Canaries, Biocontrol, The Insect Virtual Reality Tunnel, Forensic Entomology; and Love is in the Air Pheromone Game. Most importantly, no previous experience is necessary.

Dr. Michael Jeffords with the Illinois Natural History Survey will provide an orientation and training session for volunteers before the event. The orientation date will be announced at a later date.

Staff/Volunteer Hours: All Day (8 AM-- 3 PM is preferable) or shifts from 8 AM – 11:30 AM or 11:30 PM – 3 PM

Event Location: Shawnee Community College Gym

Time: 8 AM – 3 PM

Youth Participants: Grades K-8

The Cypress Creek NWR is located in the very southernmost portion of Illinois; at the junction of four physiographic regions. The Cache River Watershed has been designated a Bio-reserve by The Nature Conservancy and in 1994 was honored with becoming an official RAMSAR designated site. Within the boundaries of the Refuge, sites include 1,000 year old cypress/tupelo trees. Over 182 species of birds, 47 species of mammals, and 54 species of amphibians and reptiles are known to occur on the project area. Wildlife observation, hiking, canoe trails, and hunting and fishing are just a few of the activities offered at this new Refuge. If you need more information or would like to volunteer, please call Cypress Creek National Wildlife Refuge at 618-634-2231. #

Volunteers Needed to Assist with Frog and Toad Surveys

by Phyllis Oliver



Fowlers Toad

Four times between February and June, volunteers gear-up with rubber boots, clip boards, and data sheets and venture out into the evening to conduct frog and toad surveys. Over the last seven years, volunteers have assisted with monitoring these amphibians throughout the Cache River watershed. Each survey is conducted by listening for chorusing spring peepers, leopard frogs, and a variety of other species. This work is part of a statewide monitoring program to learn more about the population trends of Illinois' anurans – amphibians such as a frogs or toads that do not have a tail as an adult and has long powerful hind legs.

Of the 19 species of anurans found in Southern Illinois, three – the cricket frog, Fowlers toad, and pickerel frog – have declined or disappeared. The mysterious decline of amphibians throughout the world is a dilemma. Most people probably don't give them much thought, but amphibians play an important role in controlling insect populations, providing a valuable food source to other animals and contributing songs to warm spring and summer evenings. Most importantly, they serve as indicators of the overall health of the environment; they are sensitive to specific changes in the environment – the same environment humans are dependent upon.

In an effort to learn more about the ecology and status of Illinois' frogs and toads, volunteers are needed to assist with a statewide monitoring program. If you're interested in being involved please contact Liz Jones at 618-634-2231. New volunteers will receive an orientation and training materials that will assist with protocol and identification skills. If you are a current volunteer, please contact the Refuge for additional data sheets, frog/toad tapes, survey intervals and routes. #

Geology of the Shawnee National Forest

by Stan Harris

The Shawnee National Forest (SNF) purchase area of Southern Illinois contains portions of six Natural Divisions of geology. Each division has distinctive bedrock and structure, topography, natural vegetation, surface and groundwater systems. Less than 50% of the purchase area is owned by the federal government.

The oldest rocks of the Ordovician Age are located in Alexander County ❶ at the extreme southwestern corner of the state. The rocks dip toward the north and east under younger strata. During the Pleistocene Period (see table) loess (wind blown silt) was deposited across this upland area. It is thicker near the Mississippi River valley than farther to the east. Near Grand Tower ❷, the St. Genevieve fault crosses the Mississippi River that forms the western boundary of Illinois and extends to just north of Bald Knob and southward to where it gradually ends. The fault separates the Illinois Ozark Hills (11C) on the south from the Shawnee Hills to the north (13A) and east (13B).

Illinois Ozark Hills Division (11 A, B , C)

The bedrock of the Ozarks is composed of marine limestones ranging from very cherty (flinty) to some completely altered to chert. The limestones are greatly exposed in the cliffs and along the tributaries in the Mississippi River valley. Northward from Alexander County both Silurian and Devonian period strata are exposed. The Devonian Bailey Formation forms the Larue-Pine Hills Ecological Area ❸. Standing along the narrow ridge top 350 feet above the floodplain, the view to the West is outstanding. Erosion of the formation is rapid as evidenced by the veneer of loose chert and chert gravel in the ravines and streambeds.

To the east of this area the topography is more moderate and the slopes are not as steep. Crevices in the limestone form reservoirs for groundwater that is gradually released as seeps and many springs. Gravelly stream beds are filters which quickly clear flowing water of fine sediment after rain. Strong currents continually rework the gravels. Ozark streams are noted for their clear water and continuous flow even during dry weather. Black spleenwort and shortleaf pine are two of the unique plants found in the Ozark Hills.

Greater Shawnee Hills Division (13A)

The Shawnee Hills extend from the Mississippi valley bluffs across Illinois to the Ohio River. They are divided into the Greater (13A) and the Lesser Shawnee Hills (13B). The Greater is dominated by a ridge across the north with a rocky escarpment facing the south. It extends northward where it gradually merges into the Illinois glacial till plain (9B). Thick layers of Pennsylvanian sandstone form the dominant bedrock. Shale layers are present but inconspicuous because they weather and erode readily, covering the outcrops. These rocks are mostly non-marine, having been deposited in a large delta system resembling the modern Mississippi delta. The sandstones correspond to high energy stream areas and the shales correspond to quieter backwaters. These rocks dip gently northward beneath younger coal beds of the Pennsylvanian period.

The east-west escarpment of sandstone is crossed by faults in Saline ❹ and Pope County ❺. In the northeast, the Eagle Creek downfold encloses younger coal-bearing beds between the Garden of the Gods – Pounds Hollow ridge and the curving ridge comprising the Old Stone Face, Cave and Gold Hills. At the west from Cobden ❻ northwestward, the prominent escarpment is composed of Mississippian Chester sandstones.

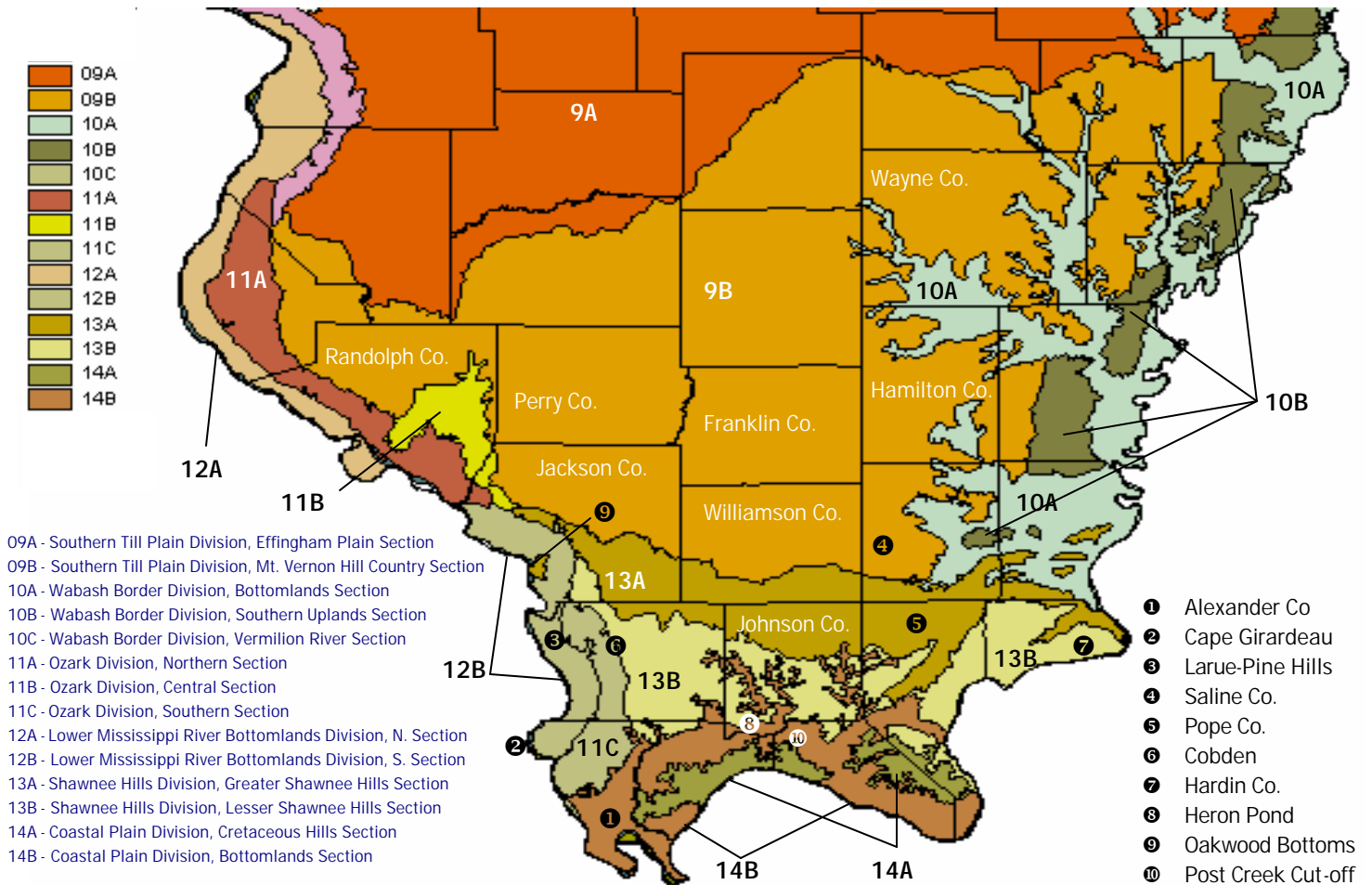
The scenic attractions are bold cliffs and the deep, cliff-lined valleys which have been eroded into the Shawnee ridge from both the north and south. Many upland tributary streams end abruptly in waterfalls. Large overhanging, arched shelters mark many cliffs. Great blocks of rock have been separated along fracture planes in the massive sandstones. In a few places they form spectacular “streets” of blocks separated from the cliff face or rock shelter roofs. Some of these blocks are far down from the cliff. *Filmy Fern* and *French's Shooting Star* are unique plants in this division.

Lesser Shawnee Hills Division (13B)

The bedrock is late Mississippian. It consists of alternating layers of sandstone-shale and limestone-shale. The sandstones, more resistant to erosion, form ridges trending in a ESE-WNW direction until interrupted by the faults of the fluorspar district. Two areas of thick marine limestones, older Mississippian, are located south from Anna-Jonesboro and in Hardin County ❷. These areas are separated by a fault block of Pennsylvanian period sandstone. Specimens of brachiopods, horn corals, crinoids, blastoids, and bryozoans can be collected in stream beds, quarries and road cuts. Small streams issue from some caves, but many are dry. The Shawnee Hills end abruptly against the Ohio valley on the east and Cache-Bay Creek creeks bottomlands on the south. Along the larger streams, the bottomlands extend many miles into the Lesser Shawnee Hills.

Geologic Periods

Million Years Ago	(Starting Dates)
1.8	Tertiary Period Pleistocene epoch Pliocene epoch Eocene epoch Paleocene epoch
145	Cretaceous
205	Jurassic
250	Triassic
286	Permian
320	Pennsylvanian
360	Mississippian
408	Devonian
438	Silurian
490	Ordovician



Coastal Plain (Cache-Bay Creek Bottomland) Division (14B)

This natural division has the appearance of a major river valley, yet it contains no streams. The modern day Cache River is a tributary flowing westward. Bay Creek is a tributary flowing eastward. At times of major floods, as in 1927 and 1937, the Ohio River indeed did flow down the valley. A levee now inhibits further overflows from the Ohio.

Lakes and swamps occupied much of the bottomland before human settlement. Settlers cut the timbers and installed tiles and ditches to drain the land for agriculture. The biggest change occurred in 1908 when the Post Creek cutoff **10** diverted the upper waters of the Cache River to the Ohio River some 50 miles above its natural confluence. Since then the Upper Cache has deepened its bed some ten feet. Because of this diversion, the stream gradient became steeper and resulting erosion has extended all the way up to Heron Pond **8**, thus endangering it. It is clear that a major river did form this valley. It is commonly called the former course of the Ohio River. According to this hypothesis glacial outwash raised the valley floor so that river overflow established a permanent channel to the Cumberland-Tennessee valley. Considerable doubt about the hypothesis now exists. Possibly it was the Cumberland River that established the early course. It appears that the depth to bedrock, nearly 200 feet, beneath the Cache-Bay Creeks bottomland is deeper than that of the Tennessee-Ohio valley.

Coastal Plain (Cretaceous Hills) Division (14A)

This division lies between the Cache-Bay Creeks bottomland and the valley of the Ohio-Tennessee River. The bedrock is unconsolidated sediment of the Mississippi Embayment of the Coastal Plain, though erosion has exposed the underlying consolidated rocks. This area was once the northern edge of what is now the Gulf of Mexico. The SNF purchase area includes only a small area containing these sands and clays. Brown chert gravels of the Pliocene epoch cap the hills.

Mississippi Valley Bottomlands (12A & B)

This division within the SNF includes the Oakwood Bottoms **9** and some additional wetlands at the base of the bluffs. Most of these areas have been greatly modified by levies and wildlife management practices. ⊕

YOUR VICTORY GARDEN

counts more than ever!





Shawnee Group
 P.O. Box 117
 Carbondale, IL 62903-0117
 USA, Earth, Milky Way

Non-Profit Organization

U.S. Postage

PAID

Carbondale, IL

Permit 3

*"I know the human being
 and fish can coexist
 peacefully."*

~ George W. Bush
 43rd U.S. President



Artists for Victory

This and other posters are available for free download from:

<http://www.sierraclub.org/sierra/200301/posters.asp>

- **A History of Victory Gardens in WWII:**
<http://www.victoryseeds.com/TheVictoryGarden/index.html>
- **Gratitude Gardens**
<http://www.5passions.com/ggp.html>
- **International Victory Garden Movement**
<http://www.victorygardens.net/VGM.html>



Shawnee Group Executive Committee

Chair	Laurel Toussaint	964-1339	✉ mailto:laureltous@hotmail.com
Vice-Chair	Donna Ayers	985-6917	✉ mailto:dayers@accessus.net
Secretary	Cathie Hutcheson	529-2022	✉ mailto:hutche@siu.edu
Treasurer	Bill Boman	995-9976	✉ mailto:billbo@onemain.com
Conservation Chair	Barbara McKasson	529-4824	✉ mailto:babitaji@aol.com (Ex-Officio)
Membership Chair	Ron Schmeck	529-8387	✉ mailto:rae50@siu.edu
Outings Chair	Bob Tyson	684-5643	✉ mailto:robkay43@webtv.net

Sierra Club Websites

National: <http://www.sierraclub.org> IL Chapter: <http://illinois.sierraclub.org> Shawnee: <http://illinois.sierraclub.org/shawnee/index.htm>
 Subscribe to the Shawnee Trails Newsletter & Access Its Archives: <http://lists.sierraclub.org/archives/il-shawnee-trails.html>
 Subscribe to the Shawnee Forum & Access Archives: <http://lists.sierraclub.org/archives/il-shawnee-forum.html>
 National Sierra Club Listserv Portal (subscribe to other newsgroups): <http://mitchell.sierraclub.org/infosys/Listserv/ListHome.asp>
 National Sierra Club Outings Catalog: <http://www.sierraclub.org/outings/national/>
 Sierra Club Chapter Outings Catalog: <http://www.sierraclub.org/outings/chapter/>
 Shawnee Group Outings Catalog: <http://illinois.sierraclub.org/shawnee/outings.htm>
 Sierra Club Merchandise: <http://illinois.sierraclub.org/shawnee/fundraising.htm>

See this issue in color on our website

Newsletter Editor Bob Pauls 549-9408 ✉ <mailto:sg618@yahoo.com>