



2011 Family Nature Summits Classes and Faculty Information

Family Nature Summits
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ADULT PROGRAMS

OFFERINGS BY INSTRUCTOR

FACULTY

Cameron, Annie Tiberio

- ❖ Photography – Understanding Exposure & More: Decoding Your Camera's controls, lecture
- ❖ Photography - Taking Aesthetic Photos: The Zen of Photographic Composition - lecture
- ❖ Photography - Exploring the Ozarks with Your Camera – Field trip#1 (Field Trip, half day, 4 hours)
- ❖ Photography - Exploring the Ozarks with Your Camera – Field Trip#2 (Field Trip, half day – 4 hours)

Egan, Dave

- ❖ Geology of the Ozarks, lecture
- ❖ Geology of the Ozarks for Hikers, lecture
- ❖ Geology of the Ozarks Field Trip

Griffin, Brete

- ❖ Birding – Birding 101, lecture
- ❖ Birding - Taum Sauk Mountain State Park Birding, Field Trip
- ❖ Birding - Bell Mountain Wilderness Area and Trails Birding, Field Trip
- ❖ Birding - Birding the Special Places of the Mark Twain National Forest, Field Trip
- ❖ Birding - Birding on the Ozark Trail, Field Trip

Hartness, Marilyn

- ❖ Art – Art and the Hiking Trek of John Muir, Clay
- ❖ Art – Art and the Hiking Trek of John Muir, Sketch/Ramble

Lampright, Bruce

- ❖ Birding – Early Morning Bird Walks
- ❖ Ecology - The Freshwater Ecology of Trout Lodge by Canoe
- ❖ Ecology - Freshwater Bugs & Wigglers for Families
- ❖ Nighttime Mothing & Insect Viewing
- ❖ Nighttime Owl Prowl
- ❖ Owl Prowl & Moth Hunt

Linthicum, Dave

- ❖ Orienteering - Trivia Orienteering (Family activity available all week)
- ❖ GPS for Beginners
- ❖ Orienteering - Orienteering Festival (Beginners to Veterans)

- ❖ Adventure Race - The 'round the Lake Adventure "Race"
- ❖ Stream Walk on Shut-in Creek & Off-Trail Walkabout, Field Trip

Pyle, Bob

- ❖ Butterflies Ramble
- ❖ The Wonders of Nature Ramble
- ❖ Readings from the Author: A Thunder Tree to Bigfoot (and more from his favorites)

GUEST PRESENTERS/SPECIAL OFFERINGS

Bonne Terre Mine / Mining Museum

Fisher Caves

High Ropes Course

Johnson Shut-Ins & Visitor Center / Elephant Rocks

Onondaga and Cathedral Caves

Banek, Tim

- ❖ All About Missouri's Invasive Species

Beringer, Jeff

- ❖ History and Ecology of Black Bears in Missouri

Blank, Kathy

- ❖ Book Club

Brian Brookshire

- ❖ Reed Lumber Yard Tour

Hansen, Lonnie

- ❖ History, Biology and Restoration of Elk in Missouri

Holmberg, Nels

- ❖ Be a Citizen Scientist w/Bryophytes: Collecting Mosses & More
- ❖ Wildflower Ramble

Huff, Eric

- ❖ Ancient Weapons and Lifestyles of Early Humans in Missouri

Jackson, Carroll

- ❖ Navigating Without Sight: Traveling the Country with a Leader Dog and Talking GPS

Kilpatric, Amy

- ❖ Agricultural Tour – Edg-Cliff Farm Vineyard Tour
- ❖ Agricultural Tour – Indian Springs Sheep and Goat Farm
- ❖ Agricultural Tour - Mary Wilson-Master Gardener--Garden Tour
- ❖ Agricultural Tour – Trout Hatcheries
- ❖ Dillard’s Mill & Meramec Spring Park Museum Historical Tour

Kinsella, Larry

- ❖ Axes and Celts: History and uses
- ❖ Flintknapping ~ Hands on
- ❖ Story Telling, Stories and Stones

Kinsella, Marilyn

- ❖ Story Telling, Stories and Stones

Krasinsky, Marla

- ❖ Book Club

Mahfood, Stephen

- ❖ Opening Night ~ Missouri’s Natural History and Culture
- ❖ What’s My Place in Conservation in a World of Diminishing Resources?

Merkel, Brian

- ❖ Forestry Management – Mark Twain Forest (Field Trip)

Mills, Lynda

- ❖ Getting to Know Missouri’s Bats
- ❖ To Catch a Bat, (Bat Netting)

Ozark Fly Fishers

- ❖ Fly Fishing - Fly tying and Fly casting

Piche, Monica and Yinger, Brian

- ❖ Service Project: Building Bat Houses

Potter, Maria

- ❖ Micro Habitats

Sabo, Sue

- ❖ Using Your Noodle

Schaper, Jo

- ❖ “Hey, Lucy, what’s that on your nose?” White Nose Syndrome presentation with Eugene Vale
- ❖ Missouri Caves 101, lecture
- ❖ Missouri Springs Are More than Puddles for Trout

Sharfenberg, Steven

- ❖ Breakfast with a Ranger

Vale, Eugene

- ❖ Living Underground
- ❖ "Hey, Lucy, what's that on your nose?" White Nose Syndrome presentation with Jo Schaper

Wilson, Mary

- ❖ Companion Planting
- ❖ Needle Tatting

Wilson, Jerry

- ❖ Atlatl Demo and Hands-on
- ❖ Dipper Gourd Making

Wilson, Susan

- ❖ Spinning Yarn Demo
- ❖ Finger Weaving your Alpaca

CLASS LISTINGS

***SKILL LEVEL KEY**

All Levels – Open to participants at any level of experience. No prerequisite, little or no physical activity

Intermediate – These activities require the ability to walk on uneven surfaces and sustain moderate physical activity for an extended period of time

Advanced – You must be in good physical condition, ability to walk on uneven surfaces and sustain a high level of physical activity for an extended period of time.

Hiking – Skill level listed under "Aerobic" and "Technical"

Adventure Race – The ‘round the Lake Adventure “Race”

A challenge, yes; Fun, yes. Competition, not so much. Designed for fit, agile folks willing to go off-trail. Circumnavigating the lake will involve paddling, hiking, basic orienteering, & basic geocaching (optional) for a total of about four miles. No spelunking (though I tried!) In pairs, we'll get up close and personal with the lake's mostly undeveloped, sometimes trail-less, always scenic shores.

Instructor: [Dave Linthicum](#)

Duration: 4 hours approx.

Skill level: Intermediate to Advanced

Date/Time Offered: 8/4 8-12 pm

Recommended items to bring: If you can borrow one, bring a GPS (Global Positioning System) unit or two. Comfortable shoes, bug spray, sunscreen, sun hat, day pack with water, camera.

Agricultural Tour, Edg-Cliff Farm Vineyard Tour

This vineyard located 10 minutes from Trout Lodge sits on top of one of the highest points in Missouri with a view of the Fourche a Renault River Valley. The bison farm next door often provides visitors with the additional bonus of observing bison and their calves in the adjacent field. The vineyards are managed using natural and sustainable cultural practices. The Edg-Cliff Farms vineyards consist of over 1,800 Chambourcin French-American hybrid red wine grape vines and 500 Vignoles French-American hybrid white wine grape vines. A third planting of 1,000 premium white wine grape vines began this year. Vineyard owners Steffie Littlefield and Cyndy Keese are the third generation that has farmed this property. They will share with us the story of the development of the vineyard, their practice of using sustainable methods, and a tour of the vegetable and cutting gardens. Time will be spent walking in the vineyard and learning about the wine making process. A small fee for wine tasting will be included and there will be time available for participants to purchase bottles of wine.

Instructor: [Amy Kilpatric](#)

Duration: 2.5 hours

Skill Level: All Levels

Fee: \$10 for wine tasting

Date/Time Offered: 8/4 1-3:30 pm

Recommended items to bring: Comfortable shoes, bug spray, sunscreen, sun hat,

Agricultural Tour, Indian Springs Sheep and Goat Farm

In the foothills of the Missouri Ozarks, and a 10 minute drive from Trout Lodge, sits the 200 year old homestead owned by Avelene and Jim McCaul. The McCauls are some of the most experienced breeders of natural colored sheep and Angora goats in the state. Original Log buildings and a historic home sit on this property, where fiber is spun from the farm's own sheep, goats, and llamas. Great Pyrenees dogs, colorful peacocks, chickens, and an herb and flower garden greet guests upon arrival. The McCauls will speak to us about the process of raising and sheering the sheep and goats and perhaps introduce us to the natural dyeing and spinning of the wool fiber.

Instructor: [Amy Kilpatric](#)

Duration: 2 hours

Skill Level: All levels

Date/Time Offered: 8/5 1-3 pm

Recommended items to bring: Comfortable shoes, bug spray, sunscreen, sun hat, day pack with water, camera.

Agricultural Tour, Mary Wilson-Master Gardener—Garden Tour

Mary Wilson specializes in using sustainable practice in her herb, vegetable, and flower gardens. She is well known in this area for her vast knowledge of companion gardening, organic remedies, and holistic approaches to diet and disease. Mary will give us a tour of her gardens and orchards and speak to us about the practices which she employs to make her land hospitable to wildlife and valuable as a healthy alternative to supermarket foods.

Instructor: [Amy Kilpatric](#)

Duration: 3 hour

Skill Level: All levels

Date/Time Offered: 8/5 8:30-11:30 am

Recommended items to bring: Comfortable shoes, bug spray, sunscreen, sun hat, day pack with water, camera.

Agricultural Tour, Trout Hatcheries

This tour will begin with an early morning visit to Westover Farms, a private trout hatchery. This beautiful property contains some of the best private fishing streams in the state, including a natural spring branch, babbling meadow brooks and a sinking creek known as Dry Creek. At the hatchery, one of the owners will show us where they raise fish and what channels the fish go through until they are stocked or sold. We will learn specifics of raising trout and the process the fish farmer goes through to raise happy healthy trout. *The trout tour will continue* with a visit to a Missouri Department of Conservation trout hatchery located in the picturesque Meramec Springs Park. This is the site of one of Missouri's largest springs. In addition to viewing the trout hatchery pools, we will take a short but scenic walk around the spring branch. If time permits, participants may choose to visit the on-site museum or continue with a longer walk (about 1 mile) along the spring branch to its confluence with the Meramec River.

Instructor: [Amy Kilpatric](#)

Duration: 4 hours

Skill Level: All Levels

Date/Time Offered: 8/4 8-12 pm

Recommended items to bring: Comfortable shoes, bug spray, sunscreen, sun hat, day pack with water, camera.

All About Missouri's Invasive Species, Lecture

The invasive species presentation will make people aware of Missouri's invasive species. The participants will learn about all types of invasive species such as, zebra mussels, Asian carp, spotted knapweed, emerald ash borer, thousand canker disease of black walnut

and many others. Information about the detrimental effects they cause and how to identify and control them will also be included.

Instructor: [Tim Banek](#)

Duration: 1.5 hours

Date/Time Offered: 8/6 1:30-3 pm

Recommended items to bring: If weather permits, may venture outside, so comfortable shoes, bug spray, sunscreen, sun hat are recommended.

Suggested Reading:

<http://mdc.mo.gov/discover-nature/field-guide/invasive-species>

<http://www.protectyourwaters.net/>

Ancient Weapons and Lifestyles of Early Humans in Missouri

Eric's boyhood interest in finding arrow heads and other early American artifacts developed into a lifelong passion. He has collected thousands of arrow heads, spear points, and other tools from sites throughout the Ozarks region, and followed his natural curiosity to identify and understand the different cultures of peoples in the area over the past 10,000 years. Eric will share portions of his collection, with pieces dating back over 6,000 years in age, in an informal, story-type format that will include collections of animal hides, bones, teeth, claws and other tools. He is thoroughly versed in the making of certain weapons, including flint knapping, and will have materials available for demonstration.

Instructor: Eric Huff

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/3 1:30-3 pm, 3:45-5:15 pm

Art, Art and the hiking trek of John Muir (Day 1, 2 and 3)

This entire clay project (and journaling) will be based on the studies of John Muir:

http://en.wikipedia.org/wiki/John_Muir

A person **has to be present for Day 1 & Day 2 to do clay**. There will be no clay on Day 3 because the clay will be drying (it must be completely dry before firing in the kiln or it will explode when the moisture reaches boiling point). If the clay participants are interested in making rubbings and cards on Day 3, they are encouraged to sign up for that as well. You may also sign up for Day 3 individually without signing up for Day 1&2.

Day 1, Using images in clay*

***All clay participants must be present for both Day 1 and Day 2 clay work.**

The project will consist of working on a nature scene in the clay for both days (1 and 2), using a "low relief" sculpture technique (carving some, and adding on small amounts of clay) to represent raised areas. The scene will be drawn on a 6" x 6" flat piece of clay from images the participant sketches in Day 1 (from the hikes and field study).

Day 2, Using images in clay*

***All clay participants must be present for both Day 1 and Day 2 clay work.**

The project will consist of working on a nature scene in the clay for both days (1 and 2), using a "low relief" sculpture technique (carving some, and adding on small amounts of clay) to represent raised areas. The scene will be drawn on a 6" x 6" flat piece of clay from images the participant sketches in Day 1 (from the hikes and field study). The clay participants will get their clay pieces back (already glazed and fired in the kiln) on the last day of the summit. They can take them home at that time.

Day 3 Hiking and sketching (no clay).

The participants will make crayon and charcoal rubbings of natural objects. These rubbings will be made into greeting cards in the last hour of class that day (you will take the blank cards home with you). Envelopes will be provided.

Instructor: [Marilyn Hartness](#)

Duration: 3.5 hours each class

Skill Level: All Levels

Fee: \$15 for supplies for Day 1 and 2

Date/Time Offered: ****DAY 1 AND DAY 2 MUST BE SIGNED UP FOR TOGETHER** THERE IS NO PREREQUISITE FOR DAY 3**

Clay: Day 1 8/2 8:30-12 pm **AND** Day 2 8/3 8:30-12 pm (must sign up for both)

Sketching: 8/5 8:30-12 pm

Recommended items to bring: Bring your imagination and a blank page book or sketchbook, pencil and pen.

Atlatl Demo and Hands-On

The atlatl or throwing stick as invented by early humans over 20,000 years ago as a way to more than double the distance that they could throw a spear. It does this by lengthening the arc of the throwing arm. The word atlatl itself is what this stick was called by the Aztec people of Mexico. It was also used by prehistoric peoples in early Europe and Asia.

Attendees will get the chance to throw a river cane spear for distance. The atlatl was replaced by the bow and arrow in the prehistoric Midwest about 600AD. This was probably because it was easier to become accurate with the bow and arrow than with a throwing stick and spear combination.

Instructor: Jerry Wilson

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/4 8-9:30 am

Recommended items to bring: Comfortable shoes, bug spray, sunscreen, sun hat

Axes and Celts: History and Uses

You will learn about the use of a stone ax through a demonstration/lecture and each participant will actually use a stone ax for cutting a log.

Instructor: [Larry Kinsella](#)

Duration: 1 hour

Skill Level: All Levels

Date/Time Offered: 8/4 10-11 am

Recommended items to bring: Comfortable shoes, bug spray, sunscreen, sun hat

Be a Citizen Scientist w/Bryophytes: Collecting Mosses & More

This is a hands-on "citizen scientist" class to study the bryophytes (mosses, liverworts and hornworts) of the Trout Lodge area. There will be a 45 min. classroom introduction on the importance, identification, ecology, collecting and cataloging of bryophytes. Next we will hike the area learning field identification and searching for interesting specimens to collect. Back in the classroom the specimens will be packaged and labeled for depositing in the Missouri Botanical Garden Herbarium. In the Herbarium they will contribute to the knowledge of bryophyte distribution and abundance and be available for future study. They will be kept there in perpetuity under the collector's (your) name and class members may visit "their find" on line. (Bryophyte distribution is kept on a county basis, and our goal will be to find species new to Washington County.) In general, bryophytes are under-studied and we will help rectify that....and learn what is under foot and under water!

Instructor: [Nels Holmberg](#)

Duration: 3 hours

Skill Level: All Levels

Date/Time Offered: 8/3 8:30-11:30 am

Recommended items to bring: Bring a notebook and if possible, a 10X hand lens. Comfortable shoes, bug spray, sunscreen, sun hat

Suggested Reading:

Bryophyte Ecology by Janice Glime, Professor of Botany in the Department of Biological Sciences at *Michigan Technological University*, Houghton, Michigan:

<http://www.bryoecol.mtu.edu>

Australian National Botanic Gardens:

<http://www.anbg.gov.au/bryophyte/index.html>

Birding – Birding 101, lecture

Watching birds is a fascinating endeavor, full of wonder and surprise. Learn the basics of birding and finish the class with the skills you need to start birding on your own.

Instructor: [Brete Griffin](#)

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/2, 8/3 1:30-3 pm

Recommended items to bring: Birds of Missouri, A Field Guide by Stan Tekiela

Birding - Bell Mountain Wilderness Area and Trails, Field Trip

This part of the Mark Twain National Forest is a rugged wilderness that was named for the highest peak in the area, Bell Mountain at 1702 feet in elevation. There are more than

9000 acres with tall peaks, Shut-in Creek and a spring-fed stream with several gorges along its course. Gnarled blackjack and post oak, black hickory, and a few winged elms are found in the harsh environment of the granite glades within the Wilderness. Pileated woodpeckers, wood thrush and ovenbirds are some of the bird species that are abundant in the forest habitat. We will only go for short hikes on some of the 14 miles of designated trails in this area while looking and listening for the resident birds of this area.

Instructor: [Brete Griffin](#)

Duration: 4.5 hours

Skill Level: All Levels

Date/Time Offered: 8/2 6-10:15 am

Recommended items to bring: Bring binoculars, comfortable footwear, a bird guide and water

Birding - Birding on the Ozark Trail, Field Trip

On this trip we will look for birds on either the Middle Fork or the Marble Creek Sections of the Ozark Trail. There's no shortage of water, and birds love water, in the Middle Fork Section of the Ozark Trail. Located in Iron and Reynolds Counties, this section of trail crosses many brooks and streams in the upper basin of the Black River's Middle Fork, including the headwaters of the Middle Fork, Neals Creek, Little Creek, Henderson Creek and Brooks Creek. It also passes near seeps and fens, such as the Barton Fen—a breeding grounds and habitat for the endangered Hines Emerald Dragonfly. Halfway between the Taum Sauk and Wappapello Sections lies the Marble Creek Section of the Ozark Trail. This "little orphan" of the trail is blocked in by private land, waiting for easement or purchase negotiations to connect on either side. For either option we will look for breeding birds and possibly early migrants in addition to making our usual efforts to study the flora and other fauna of this interesting area.

Instructor: [Brete Griffin](#)

Duration: 6 hours

Skill Level: All Levels

Date/Time Offered: 8/4 6-12 pm

Recommended items to Bring: Bring binoculars, comfortable footwear, a bird guide and water

Birding - Birding the Special Places of the Mark Twain National Forest, Field Trip

On this full day trip we will focus on visiting some natural areas that are described as special places on the website of the Mark Twain National Forest. This trip will likely produce the highest bird species diversity experienced on any given day of the 2011 Family Summit. One of the sites that we will visit is the John J. Audubon Trail which was established by the BSA as a memorial pilgrimage through the area which the great naturalist/artist visited on his wide-ranging bird collecting trips while living in Ste. Genevieve, Missouri. We will also try to visit the Big Barren Creek Natural Area south of Van Buren. Big Barren Creek Natural Area has many prominent features enhancing its preservation value: An exceptional Ozark headwaters stream with quality aquatic natural communities, an outstanding upland and bottomland forest, an uncommon dolomite sedimentary rock shut-in and cliffs, and a dolomite glade. Caves and cave-like

openings can be seen along the cliffs. Some of the special birds to be found here include the Prothonotary Warbler, Louisiana Waterthrush, and Eastern Phoebe. Not too far from here is the final destination, the Cupola Pond Natural Area, south of Winona. This is a sinkhole that actually holds water and a narrow ring of water tupelo trees surrounds the pond, which are normally found in the swamps of the Mississippi Delta. Special birds to be found here include Great Crested Flycatcher, Barred Owl, and another chance at Prothonotary Warbler. Little Blue Herons have also been recorded here but are considered rare. If time allows we will also stop at Haney Pond which is one of only 3 examples in Missouri of a forested acid seep natural community.

Instructor: [Brete Griffin](#)

Duration: 8.5 hours

Skill Level: All Levels

Date/Time Offered: 8/6 7-3:30 pm

Recommended items to bring: Bring binoculars, comfortable footwear, a bird guide and water

Birding – Early Morning Bird Walks at the YMCA

During early morning strolls around YMCA of the Ozarks, participants will have ample opportunity to become familiar with the resident bird species.

Instructor: [Bruce Lampright](#)

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/2, 8/4, 8/5 6-7:30 am

Recommended items to bring: Binoculars, dark or earth-toned hats & clothing, comfortable footwear and a bird guide

Suggested Reading: Birds of Missouri, A Field Guide by Stan Tekiela

Birding – Taum Sauk Mountain State Park Birding, Field Trip

In this park we will look for breeding birds characteristic of glade and forest habitats. The natural communities include Oak and Hickory upland forest, flatwoods, savannas and bottomland forest in the over 7,500-acre, virtually untamed expanse of wilderness. The volcanic origin of Taum Sauk can be seen in the many open, rocky expanses called glades that are scattered throughout the park and are home to many desert-adapted plants and animals. These diverse communities provide habitats for a range of different bird species. We will take the paved trail a mere 1000 feet to the top of the mountain, birding as we go, and then enjoy the view from the 1772 foot high summit. If time allows we may walk part of the trail to the nearby breathtaking Mina Sauk Falls and look for birds there as well.

Instructor: [Brete Griffin](#)

Duration: 6 hours

Skill Level: All Levels

Date/Time Offered: 8/5 6-12 pm

Recommended items to bring: Bring binoculars, comfortable footwear, a bird guide and water

Bonne Terre Mine / Mining Museum Tour

Bonne Terre Mine: The Bonne Terre mine was the first in the network of St. Joe Minerals lead mines that led to Missouri producing 70 percent of the United State lead in the Southeast Missouri Lead District. The mine was a target of Price's Raid during the American Civil War, when lead was a crucial element for ammunition. Take a one hour guided walking tour through the first and second levels of the mine along the "Old Mule Trail", showing where miners dug with a pick and shovel in the 1800s. The earliest shaft was dug in 1864. Along this tour, you will see Huge Pillar Rooms, Grand Canyon, Billion Gallon Lake (billed as the world's largest subterranean lake), Trout Pond, Underground Flower Gardens, Beautiful Calcite Falls, and ancient Abandoned Mining Tools and Rail Systems. This is an easy walking tour that does include approximately 70 steps at the entrance/exit from the mine. The remainder of the tour is on a relatively flat walkway. And, of course, enjoy the cool, year-round temperatures.

Missouri Mines State Historic Site: Enjoy an off-site lecture and educational tour by Art Hebrank, geologist with the Missouri DNR, at the Missouri Historic Mining Site. Lead has been big business in the eastern Ozarks since about 1720, and almost every town in the Ozarks is affiliated with a nearby mining operation (or former operation). Come explore the region's mining history – and see the processing plant of the former St. Joe Lead Company – in the heart of the Old Lead Belt at Missouri Mines State Historic Site. The mine's former powerhouse has been turned into a museum that interprets the area's lead mining history, displays actual machinery from the mines and houses one of the Midwest's finest mineral collections. Art has worked as a geologist for the state for most of his career and has extensive knowledge of the geology of the region as well as its mining history. Art will share his knowledge of the St Joe Lead company, the site's mining history, and the overall mineral richness of the region as he leads you through a walking tour of the museum's displays.

Skill level: All levels

Fee: \$19

Date/Time Offered: 8/3, 8/5 1-5:30 pm

Book Club

(Please see section in the handbook called "Book Club" for full description)

The Summit book discussions are wonderfully informal. Please feel free to join us even if you haven't had a chance to read the books! Discussion of the books can take place on buses, hikes, porches, and at meals!

Instructor: [Kathy Blank](#) and [Marla Krasinsky](#)

Duration: 1.5 hours

Skill level: All levels

Date/Time Offered: 8/5 3:45-5:15 pm

Recommended items to bring: Books on book club list for discussion

Books: *A COUNTRY YEAR* by Sue Hubbell and *BALD KNOBBERS vigilantes on the Ozarks Frontier* by Mary Hartman and Elmo Ingenthron

Breakfast with a Ranger

Participants will learn first hand what a park ranger's role is at Missouri State Parks. The Ranger will come in full uniform and there will be an opportunity for Questions and Answers at the end of this fun and informal "breakfast chat".

Instructor: Steven Sharfenberg

Duration: 1.5 hours

Skill level: All levels

Date/Time Offered: 8/3 8:30-10 am

Butterflies Ramble

We will walk out into the local habitat in search of the resident butterfly fauna. Employing close observation at nectar and other activities, as well as catch and harmless release, we will gain a close acquaintance with the identity and lifeways of these "bright wings of summer." By the conclusion, participants will have gained a basic knowledge of butterfly natural history and the characteristics of the main families to be found in North America.

Instructor: [Bob Pyle](#)

Duration: 3 hours (Wednesday), 2 hours (Friday, Saturday)

Skill Level: All Levels

Date/Time Offered: 8/3 9-12 pm; 8/5, 8/6 10-12 pm

Recommended items to bring: Bring binoculars, comfortable footwear and water

Companion Planting

Companion planting using organic practices to be able to grow vegetables along with herbs and flowers in a natural way. In this class you will learn to plant certain vegetables, herbs, and flowers together to benefit each other as well as learning how to garden (without the use of classical pesticides) to benefit pollination from beneficial insects in your gardens.

Instructor: Mary Wilson

Duration: 1.5 hours

Skill Level: All levels

Date/Time Offered: 8/3 10:30-12 pm

Dillard's Mill & Meramec Spring Park Museum Historical Tour

The tour will start at Dillard's Mill. Along the crystal clear waters of the Huzzah Creek sits one of the state's best preserved water-powered grist mills. The machinery of the mill is still operational. A naturalist on site will lead a hour long tour through the mill explaining the workings of the machinery as well as the history of the surrounding community. A short .25 mile trail leads visitors from the parking lot through a scenic oak-hickory forest surrounded by a plateau of pines. The mill pond above the mill, and the clear creek below its waterfall, are favorite fishing sites. *The tour continues* to Meramec Springs Park. The park is rich in history. Once the site of Meramec Iron Works, many of the remnants of that operation remain in the park. The Meramec Museum houses natural and cultural history exhibits including interactive displays of the old mining operation, a large waterfall, and a 500 gallon aquarium. The Agriculture Museum contains displays of antique farm machinery and a model blacksmith shop.

Instructor: [Amy Kilpatric](#)

Duration: 6.5 hours

Skill Level: All levels

Fee: \$4

Date/Time Offered: 8/3 8-3:30 pm

Recommended items to bring: Comfortable shoes, bug spray, sunscreen, sun hat, day pack with water, camera.

Dipper Gourd Making

Students will be given a long-necked gourd and will process it into an old fashioned "drinking gourd" or dipper.

Instructor: Jerry Wilson

Duration: 1.5 hours

Skill Level: All levels

Fee: \$15 for supplies

Date/Time Offered: 8/4 1:30-3 pm

Finger Weaving your Alpaca

Fingerweaving is a loomless weaving technique used by the Eastern Woodland Indians of North America. As you know, alpacas were originally from South America. Bring North and South together once and for all by fingerweaving a scarf out of luxurious alpaca yarn. All materials, including alpaca yarn and instructional booklet are included. Out-of-class time will be needed to complete the project.

Instructor: Susan Wilson

Duration: 1.5 hours

Skill Level: All Levels

Fee: \$30 fee for supplies

Date/Time Offered: 8/4 1:30-3 pm

Recommended items to bring: Just your fingers!

Suggested Reading: "Women's Work: The First 20,000 Years" by Elizabeth Wayland Barber

Fisher Cave

Fisher Cave is truly one of the park's most spectacular natural wonders. Naturalist-led tours, provide an interesting adventure for park visitors. From the low, narrow streamside passages to the huge rooms filled with calcite deposits, Fisher Cave offers one outstanding cave scene after another. Inside these rooms and passages are well-preserved bear claw marks, cave wildlife and a vast array of calcite deposits ranging from intricate hellectites to massive columns 30 feet tall.

Skill level: Intermediate to Advanced

Fee: \$4

Date/Time Offered: 8/2, 8/4 (Filled), 8/5 1:30-5:30 pm

Flintknapping ~ Hands-on

Students can make arrowheads, using flint and similar tools used by ancient people, throughout the world.

Instructor: [Larry Kinsella](#)

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/4 11-12 pm

“Floats” on the Courtois (said cut-away)

The Ozark hills are home to some of the most scenic waterways in North America. The gravel bottom of these streams allows for clear water, providing the opportunity to observe a wealth of aquatic wildlife. Due to the limestone and dolomite bedrock of this area, many cool water springs feed these streams and bluffs and caves can often be observed along the banks. Gravel and sandbars along the way provide a home for a variety of wildlife, including many wading and fishing bird species. These gravel bars are popular places to picnic, fish, or hop into the stream for a refreshing swim. A popular recreational activity in this area is taking a “float trip” in a canoe or kayak. The river outfitter being used by the summiteers will provide canoes or sit-on-top kayaks. Although the streams do not contain white water, there are some challenges along the way when trying to avoid root-wads, downed trees or areas of rapid current. Shallow areas along the way may cause some drag, necessitating stepping out of the boat to pull it over these spots. Water shoes that stay on in a current are strongly recommended.

Instructor: [Bruce Lampright](#)

Duration: 9.0 hours

Skill Level: Intermediate to advanced

Fee: \$20

Date/Time Offered: 8/2 8-5 pm

Instructor: [Eugene Vale](#)

Duration: 7.5 hours

Skill Level: Intermediate to advanced

Fee: \$20

Date/Time Offered: 8/3 8-3:30 pm

Instructor: Mike Lillmars

Duration: 7.5 hours

Skill Level: All levels

Fee: \$20

Date/Time Offered: 8/4, 8/5 9-3:30 pm

Recommended items to bring: Sun protection, water bottles, rain gear, and securely tied or buckled wading shoes.

Fly Fishing ~ Fly Tying and Fly Casting

Fly tying and casting demonstration with an opportunity for interactive participation. You will generate a fly, practice casting and go to the edge of the lake at the YMCA and will be guided on how to attach the fly and properly cast a fly rod. You may even catch a fish!

Instructor: Ozark Fly Fishers

Duration: 2 hours

Skill Level: All Levels

Date/Time Offered: 8/6 10-12 pm, 1:30-3:30 pm

Forestry Management – Mark Twain Forest (Field Trip)

See and discuss firsthand different tracts of land at different stages of the forestry management cycle.

Instructor: Brian Merkel

Duration: 3 hours

Skill Level: All levels

Date/Time Offered: 8/2, 8/3 1-4 pm

Recommended items to bring: Shoes or tennis shoes (no flip-flops), hats, sunglasses, sunscreen, binoculars and drinking water.

Freshwater Bugs & Wigglers for Families

What's better than getting wet and collecting critters? Here's an excuse for all you grown-ups to get in the water with the kids and play while you learn too! We'll visit local streams to see just how many invertebrates we can find while learning their amazing stories and survival strategies.

Instructor: [Bruce Lampright](#)

Duration: 1.5 hours

Skill Level: All levels

Date/Time Offered: 8/4 3:45-5:15 pm

Recommended items to bring: Dark or earth-toned hats & clothing, water shoes or tennis shoes (no flip-flops), shorts or swimwear, hats, sunglasses, sunscreen, binoculars, hand lens, and drinking water

Suggested Reading:

"Golden Guide to Pond Life" by George K. Reid

"Pond and Brook" by Michael J. Caduto

Freshwater Ecology of Trout Lodge by Canoe

Come get a little wet while exploring by canoe and discovering the many secrets of the local waters. Bruce will make use of plankton, dip, and seine nets while telling the fascinating story of 360 acre Sunnen Lake and the nearby trout stream flowing into it. The group will compare and contrast the two aquatic ecosystems and learn about current issues (no pun intended) such as Ozark water quality issues and invasive species. Field microscopes will be used to examine the many amazing aquatic invertebrates that most never see, but are so vital to the survival of so many organisms.

Instructor: [Bruce Lampright](#)

Duration: 3.5 hours

Skill Level: All levels

Date/Time Offered: 8/3, 8/6 8:30-12 pm

Recommended items to bring: Dark or earth-toned hats & clothing, water shoes or tennis shoes (no flip-flops), shorts or swimwear, hats, sunglasses, sunscreen, binoculars, hand lens, and drinking water

Suggested Reading:

Pond and Brook by Michael Caduto

The Amphibians And Reptiles of Missouri by Tom R. Johnson

A Guide to Common Freshwater Invertebrates by J. Reese Voshell, Jr.

The Fishes of Missouri by William Pflieger

MDC Online (Missouri Department of Conservation) www.mdc.mo.gov

Geology of the Ozarks, lecture

Missouri has been and continues to be a leading producer of commodity metals. The Ozarks are the heart of that mining tradition. This class will provide an overview of the geologic history of the Ozarks, the plants and animals that inhabited the area in ancient times, the current rock types encountered throughout their region and the nature of their occurrence, and the mineral resources that resulted from this geologic history. The goal will be to provide attendees a broader perspective on which to view and enjoy the historical and natural setting of the Ozark region.

Instructor: [Dave Egan](#)

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/3 1:30-3 pm

Geology of the Ozarks for Hikers, lecture

This class is an abbreviated version of the Geology of the Ozarks for those folks who would like a brief overview of the region's geologic history but are unable to schedule a typical day-time lecture.

Missouri has been and continues to be a leading producer of commodity metals. The Ozarks are the heart of that mining tradition. This class will provide an overview of the geologic history of the Ozarks, the plants and animals that inhabited the area in ancient times, the current rock types encountered throughout their region and the nature of their occurrence, and the mineral resources that resulted from this geologic history. The goal will be to provide attendees a broader perspective on which to view and enjoy the historical and natural setting of the Ozark region.

Instructor: [Dave Egan](#)

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/2 1:30-3 pm

Geology of the Ozarks Field Trip

The geology field trip will include a drive around the region to inspect and observe, first-hand, the rocks and geologic history of the Ozark region. There will be multiple stops, some along some less-than scenic road cuts that allow for geologic interpretation of otherwise buried materials. The trip will include several, more scenic stops and allow for some fossil collecting. Most geologic features will be in very close proximity to the vehicle, so there will be minimal walking/hiking on this trip. By the end of the trip, participants should have a good understanding of the geology of the Ozarks and its rock types as well as an ability to distinguish the rock types of the region.

Instructor: [Dave Egan](#)

Duration: 4.5 hours

Skill Level: All Levels

Date/Time Offered: 8/3, 8/4, 8/5, 8/6 7:30-12 pm

Recommended items to bring: Dress for all weather conditions

Suggested Reading: <http://www.dnr.mo.gov/geology/adm/publications/index.html> has a variety of online information and the following books are very informative:

Roadside Geology of Missouri and Geologic Wonders and Curiosities -- both (and more) are available at "<http://www.missourigeologist.com/>"

Getting to Know Missouri's Bats

With over 10 years experience in Mark Twain National Forest, Lynda will talk about characteristics, life history, and benefits of the species of bats that are found in the Missouri Ozarks. She will also talk a bit about the biggest threat they are now facing called "White Nose Syndrome."

Instructor: [Lynda Mills](#)

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/3 1:30-3 pm

GPS for Beginners

You will find that the shoreline along the big lake is more fun to explore when you have a GPS in hand! You will learn how to use a GPS and map together, and how to do some geo caching to some pretty spots that otherwise go unvisited by 99% of us. This is a basic GPS navigation course for beginners. In this all-outdoor ramble of a bit over a mile, we'll learn navigational skills that will prove fun, comforting, and useful for exploring nature on your next vacation or when you return home. This all outdoor stroll involves nice, easy, flat lakeside terrain starting from our lodging.

We'll also explore some of the navigational mysteries of our time, such as why more people are getting lost now than before the GPS-cell phone era. (Partial answer: lack of map navigation skills. So we'll use a good map and a good aerial photo too.)

Instructor: [Dave Linthicum](#)

Duration: 3 hours

Skill Level: All Levels

Date/Time Offered: 8/6 8:30-11:30 am

Recommended items to Bring: Bring raingear, water, protection from bugs and, if you can borrow one, a GPS (Global Positioning System) unit or two..... *If you want to use your own GPS unit in class, see Dave at least by breakfast on the first morning.*

Suggested Reading: <http://geocacher-u.com/>

Hey, Lucy, what's that on your nose?

White nose syndrome is a fungus which is afflicting American bats with usually fatal results. WNS first showed up in 2006 in New York, but has since spread across the country. Come along and watch and listen to "Lucy Fugus" and Eugene Vale as they take a lighthearted look at a very serious problem.

Instructor: [Jo Schaper](#) and [Eugene Vale](#)

Duration: 1 hour

Skill Level: All Levels

Date/Time Offered: 8/2 3:45-4:45 pm

Suggested Reading: www.caves.org/WNS

High Ropes Course

Choose one of the challenges available on one of the largest and most unique ropes courses in the Midwest. Participants wear a harness and helmet and are held by a belay system.

Instructor: YMCA

Skill level: Intermediate to Advanced

Fee: \$15

Date/Time Offered: 8/3 1:30-3:30 pm; 8/6 8:30-10:30 am, 1:30-3:30 pm

History and Ecology of Black Bears in Missouri

Jeff Beringer (colleague of longtime Summiteer Mike Pelton) will present a power point covering history, biology, and recent research of black bears in MO. Following the indoor session he will demonstrate capture techniques for bears and examine some bear sign and a previously used den.

Instructor: [Jeff Beringer](#)

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/2 10:30-12 pm

History, Biology and Restoration of Elk in Missouri

This will be an informational presentation on the history of elk in Missouri including their distribution and abundance prior to the arrival of early settlers, their extirpation in the mid-1800's and a recent effort to restore elk to the Ozarks. The biology of elk will then be discussed and compared to white tailed deer. This will include physical characteristics,

reproduction, habitat, food requirements and the values and problems of having elk on the landscape.

Instructor: [Lonnie Hansen](#)

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/5 1:30-3 pm, 3:45-5:15 pm

Johnson Shut-Ins & Visitor Center/ Elephant Rocks

This natural wonder is enjoyed by visitors as a natural water park and wading in the cool water while enjoying this geological marvel is a great way to experience this unique place. **Johnson Shut-Ins State Park** is a Missouri state park on the East Fork Black River. The park is jointly administered with adjoining Taum Sauk Mountain State Park in the St. Francois Mountains region of the Missouri Ozarks. The term "shut-in" refers to a place where the river's breadth is limited by hard rock that is resistant to erosion. In these shut-ins the river cascades in many rivulets over and around igneous rocks worn smooth over many eons.

This is a site to see! **Elephant Rocks State Park** encompasses an outcropping of Precambrian granite in the Saint Francois Mountains. It is named for a string of large granite boulders which resemble a train of pink circus elephants. Geologically, Elephant Rocks State Park consists of a "tor", which is a high, isolated rocky peak, usually of jointed and weathered granite. The alkaline granite here was formed in the Proterozoic 1500 million years ago from a dome of molten magma.

Duration: 4.5 hours

Skill level: Intermediate - Johnson Shut-ins

Skill Level: All levels – Elephant Rocks

Date/Time Offered: 8/2 (Full), 8/3, 8/4 7:30-12 pm

Living Underground

Caves are ALIVE! Strange creatures inhabit the world of permanent night, animals that literally would die should they venture above ground. This class will familiarize students with some of the weird denizens of the deep and how they survive there.

Instructor: [Eugene Vale](#)

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/2 1:30-3 pm

Micro Habitats

Ever wonder what really lives all around you? we will take a look at the many different habitats that surround us in the common forest setting; under our feet, at eye level and above our heads. We will explore how rain, wind, fire and air can work together to make these different places home for a myriad of creatures. We will discover the symbiotic relationships they can have to coexist so well together.

Instructor: Maria Potter

Duration: 2 hours

Skill Level: All levels

Date/Time Offered: 8/6 3-5 pm

Recommended items to bring: Comfortable shoes, bug spray, sunscreen, sun hat, water, camera.

Missouri Caves 101

Missouri Caves 101 is a classroom-Powerpoint based presentation presenting basic information about caves and cave life. At the conclusion, participants will be able to answer these questions, and more: How are caves formed? How old are they? What is karst? What lives there? How have people used caves? What do you need to know to enjoy and take care of such places? Bring questions, as the instructor has been caving for over a quarter of a century!

Instructor: [Jo Schaper](#)

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/2 10:30-12 pm

Missouri Springs Are More than Puddles for Trout

Have you always been intrigued by freshwater springs? Missouri has the largest concentration of first magnitude springs in the United States. Come along on a virtual journey to learn answers to the questions you've always wondered about, like where the water comes from, what lives there, what springwater is used for, and why it is an important and precious resource.

Instructor: [Jo Schaper](#)

Duration: 1.5 hours

Skill Level: All levels

Date/Time Offered: 8/2 8:30-10 am, 1:30-3 pm

Navigating Without Sight: Traveling the Country with a Leader Dog and Talking GPS

Think your travels to get to the Summit were crazy? Imagine getting through it all without the help of your vision. Carroll Jackson, who is blind, is a field representative for Leader Dogs for the Blind and regularly travels independently all over the United States. He will share stories of his adventures and follies navigating airports, hotels, restaurants, famous sites and unfamiliar streets with the assistance of his Leader Dog, Hunter, and a talking GPS device for the blind called a Trekker. Plus, Hunter will show-off his unique skills (and possibly even find a cup of coffee, a critical necessity for every traveler)!

Instructor: [Carroll Jackson](#)

Duration: 1.5 hours

Skill Level: All levels

Date/Time Offered: 8/3 3:45-5:15 pm

Suggested Reading: www.leaderdog.org

Needle Tatting

Needle tatting is the lost art of making lace and motifs by using just a needle and thread. The basic stitches are learned and then by using these stitches in a counted combination, you will create a wide variety of patterned laces.

Instructor: Mary Wilson

Duration: 1.5 hours

Skill Level: All levels

Date/Time Offered: 8/3 1:30-3 pm

Needle tatting kits available for purchase for \$10 each. This kit includes everything needed to be used later.

Nighttime Mothing & Insect Viewing

Join Naturalist Bruce Lampright as he attracts moths and other night-flying insects to black and white lights. It can feel like Christmas in August as huge showy silkworm moths and bizarre-looking beetles and giant water bugs are drawn to these lights illuminating a large hanging bedsheet. Plan to visit on several nights as results can vary greatly with changing conditions.

Instructor: [Bruce Lampright](#)

Duration: 2 hours

Skill Level: All levels

Date/Time Offered: 8/3 9-11 pm

Recommended items to bring: Dark or earth-toned hats & clothing, dress for all types of weather

Suggested Reading: A Field Guide To Moths of Eastern North America by Charles V. Covell Jr. Golden Guide to Butterflies and Moths by Robert T. Mitchell Kaufman Field Guide to Insects of North America by Eric R. Eaton

Nighttime Owl Prowl

Is it an "Eight Hooter" or a "Five Hooter"? Join Naturalist Bruce Lampright as he searches for some of the four species of owls that nest in Missouri. He'll use recordings, owl calls, and even his own mouth to attempt to call in these nighttime predators from within walking distance of Trout Lodge.

Instructor: [Bruce Lampright](#)

Duration: 1.5 hours

Skill Level: All levels

Date/Time Offered: 8/2 8:30-10 pm

Recommended items to bring: Dark or earth-toned hats & clothing, dress for all types of weather

Suggested Reading: Birds of Missouri, A Field Guide by Stan Tekiela

Nighttime Owl Prowl & Moth Hunt

Join Naturalist Bruce Lampright as he searches for some of the four species of owls that nest in Missouri. He'll use recordings, owl calls, and even his own mouth to attempt to call in these nighttime predators from within walking distance of Trout Lodge.

He'll also attract moths and other night-flying insects to black and white lights. It can feel like Christmas in August as huge showy silkworm moths and bizarre-looking beetles and giant water bugs are drawn to these lights illuminating a large hanging bedsheet.

Instructor: [Bruce Lampright](#)

Duration: 2.0 hours

Skill Level: All levels

Date/Time Offered: 8/5 9-11 pm

Recommended items to bring: Dark or earth-toned hats & clothing, dress for all types of weather

Suggested Reading:

Birds of Missouri, A Field Guide by Stan Tekiela

A Field Guide To Moths of Eastern North America by Charles V. Covell Jr.

Golden Guide to Butterflies and Moths by Robert T. Mitchell

Kaufman Field Guide to Insects of North America by Eric R. Eaton

Onondaga and Cathedral Caves

Onondaga Cave is one of America's most spectacular caves, with 1.5 miles of passages decorated with fantastical deposits like the Twins, the King's Canopy, the Rock of Ages, the Big Room and the delicate Lily Pad Room. Onondaga also is one of the most accessible of the caves. Tours follow a paved walkway with a stainless steel railing, and electric lights are switched off and on to illuminate the way.

Cathedral Cave contains much flowstone, especially great amounts of cave coral. Other highlights are a natural bridge and stromatolites, fossilized algal beds. Frequent winds in the cave are responsible for wind-bent stalactites.

Skill level: *All levels (you must be able to walk up stairs and climb up a slight gradation)

Fee: \$12

Date/Time Offered: 8/2, 8/3, 8/4, 8/5 1:30-5:30 pm

Orienteering - Orienteering Festival (Beginners to Veterans)

We're lucky again this year to have a great orienteering map (by the St. Louis Orienteering Club) of the YMCA....we're literally "on the map." This is ideal for beginners** in this all outdoor "fun with maps" class. It's also perfect for orienteering veterans who don't want much or any instruction, to do one or more orienteering courses as part of this fun orienteering "festival," earning a valuable Summit orienteering certificate to boot! **After a couple hours of learning map skills, you can either head back to the lodge early, or stay with us for some real orienteering with a classmate (or even on your own) on the beautiful Y grounds.

For beginners, we'll explore the woods, trails, and streams adjacent to our lodge as a group on a slow ramble, sometimes off trail (agility required!), becoming more

comfortable with map reading. Our main goal: becoming more adept at exploring nature (often best when a bit "off the beaten track.") Another goal: explore how the sport of orienteering thrives where you live. We'll look at the role maps and Google Earth play in citizen land protection efforts these days. As one alumnus put it, "I left this class feeling very good about my new skill." Teachers and youth group leaders are particularly welcome. Americans now test about last in the modern world in geography skills... This class will help you to stop being part of the problem! No prior experience needed.

Instructor: [Dave Linthicum](#)

Duration: up to 4 hours

Skill Level: All levels

Date/Time Offered: 8/3 8-12 pm

Recommended items to Bring: Raingear, watch, water, protection from sun and bugs (long pants, socks, boots), and a compass if you can get one.

Suggested Reading (optional): Orienteering by Steve Boga, \$13.95 on Amazon.com

Orienteering - Trivia Orienteering (Family activity available all week)

Out the front door of our lodging, this is a fun photo orienteering hike available anytime Monday through Sunday on a "do it yourself" basis. Just stop by the Summit Office (or see Dave Linthicum) for maps and the directions sheet.

Even navigational novices should try this fun, self-guiding "treasure hunt." On this short self-guided map hike, everyone in the family can find answers to often unusual questions, such as "How old were Lennie & his sibling when they passed away in the 1800's?" or "Found here but nowhere north of here are a number of tree _____ sticking out of the ground."

Or, if you prefer, your map hike will get you to the scenic creek below the dam, the floating footbridge above the dam, or the pagoda overlooking the dam. No experience with maps is needed.

Your quest is to get to the locations on your aerial photo where the answer to a mysterious, trivial question will be apparent. Some natural and some historical questions are included. All are relatively close to our lodging. Find ten or more and earn a valuable personalized Summit orienteering certificate!

Instructor: [Dave Linthicum](#)

Duration: No specific time

Skill Level: All levels

Date/Time Offered: Family activity available all week

Recommended items to Bring: Raingear, watch, water, protection from sun and bugs (long pants, socks, boots), and a compass if you can get one.

Suggested Reading (optional): Orienteering by Steve Boga, \$13.95 on Amazon.com

Photography – Exploring the Ozarks With Your Camera, Field trip 1 & 2

Nature offers wonderfully unique opportunities to capture your personal expressions of life on film. In an optional follow-up field trip to the accompanying lecture, we'll put theory into practice and you'll have time to apply the points covered in the *"Taking Aesthetic Photos"* lecture. Our travels will take us into natural areas found near Trout Lodge, investigating all the vistas, flora and fauna we can find.

The instructor will be available to work 1:1 with you on specific questions about your particular camera. Use this time as a chance to de-mystify questions on your personal equipment and to practice some basic compositional techniques. Your goal is to begin to let your own voice emerge.

Field trip 2 - Same instructor, same subject, different shooting sites! If you are gung-ho for photographic field trips, or if you need more practice on your camera with 1:1 support from Annie, join us for the second field trip which will visit completely different locations.

Instructor: [Annie Cameron](#)

Duration: 4 hours

Skill Level: All levels

Date/Time Offered: Field trip 1 - 8/4 8-12 pm; Field trip 2 - 8/6 8-12 pm

Recommended items to bring:

camera, lenses, all desired accessories, your camera's instruction booklet, memory cards, sufficient batteries, tripod (if you have one,) comfortable walking shoes for possible wet terrain, and rain gear.

Suggested Reading:

Please bring to the field trip the instruction booklet that came with your camera. If you don't have one, the manufacturer's website may allow you to download one

Photography – Taking Aesthetic Photos: the Zen of Photographic Composition, lecture

"A great photograph is a full expression of what one feels about what is being photographed in the deepest sense, and is, thereby, a true expression of what one feels about life in its entirety." ANSEL ADAMS

Good photography is not only about mastering the technical aspects of your camera and its controls, but also about applying traditional compositional concepts to your images. Eventually with these both in hand, one should strive to go a step beyond and put your own spirit and character into your work.

No matter the style camera you use (SLR or point-and-shoot) this slide-illustrated class will offer some of the basics of photographic composition, and then touch upon finding your own voice in your images. Most SLRs and some point-and-shoots will have the controls to allow access to these compositional concepts. Note: No attention will be given in the lecture to operating individual camera controls, however some 1:1 time with the instructor will be available for those also taking a field trip option.

Instructor: [Annie Cameron](#)

Duration: 2 hours

Skill Level: All levels

Date/Time Offered: 8/2, 8/3 1:30-3:30 pm

Photography – Understanding Exposure & More; Decoding Your Camera's Controls, lecture

Do you shoot entirely on auto and would like to get more out of your camera? If you have heard of terms like f/stop, shutter speed, metering mode, white balance, and ISO, but aren't sure what they're about, this lecture will decode all these and more in easy-to-understand language. The focus will be on digital cameras – SLR or compact. The same concepts will apply to film cameras, so don't shy away if you're still toting one of those! After this slide-illustrated lecture accompanied by a detailed hand-out, you'll go home with enough info to practice using more of your camera's controls.

Instructor: [Annie Cameron](#)

Duration: 2 hours

Skill Level: All levels

Date/Time Offered: 8/2 10-12 pm; 8/5 1:30-3:30 pm

Readings from the Author: A Thunder Tree to Bigfoot (and more from his favorites)

R. M. Pyle is the author of fifteen books of natural history nonfiction, as well as a poet, fiction writer, and longtime columnist for *Orion Magazine*. In this session he will read from some favorites as well as less familiar material. There is nothing like hearing the words from the horse's mouth. Dr. Pyle will also be happy to sign bookplates, and advise how his books might best be obtained.

Instructor: [Dr. R.M Pyle](#)

Duration: 1.5 hours

Skill Level: All levels

Date/Time Offered: 8/3 3:45-5:15 pm; 8/4 1:30-3 pm

Reed Lumber Yard Tour

The participants will tour a large Ozark sawmill where they produce lumber that is used in flooring, furniture and pallet manufacturing. The tour will focus on subjects such as sustainability practices and Forest Management Programs.

Instructor: Brian Brookshire

Duration: 2 hours

Skill Level: All levels

Date/Time Offered: 8/3 9:30-11:30 am

Service Project: Building Bat Houses

For our service project this year, we will be constructing roosts for bats to provide locations for their survival on the grounds at the YMCA. Each day the service project will begin with a reading of 'The Great Ball Game' retold by Joseph Bruchac for all to hear. There will be a 15-20 minute presentation/Q&A about bats and the benefits of bat boxes.

With this information you too can build roosts at your own home to help the bats in your area.

Instructor: [Monica Piche](#) and [Brian Yinger](#)

Duration: 1.5 hours

Skill Level: All Levels (need to know how to use a Phillips screwdriver)

Date/Time Offered: 8/2, 8/3, 8/4, 8/5, 8/6 1:30-3 pm

Suggested Reading: Bats by Gail Gibbons and The Great Ball Game by Joseph Bruchac

Spinning Yarn Demo

Elizabeth Wayland Barber wrote about the "string revolution", the knowledge of spinning fiber to make string, rope, etc. as important to early human development as the discovery of fire and the invention of the wheel. I will demonstrate the use of various types of handspindles made of a variety of materials. Then I will segue through several spinning devices onto demonstrations on the spinning wheel, spinning fibers from a veritable Noah's ark of animals.

I originally thought the spinning wheel was an ancient tool. Imagine my surprise when I found out the spinning wheel was invented in India, and the first one didn't get to England until 1450! Some sort of handspindle was used by everybody's ancestor. In some parts of the world, the spinning wheel never caught on. The people had a nomadic lifestyle and couldn't afford to sit in one spot to take care of their spinning needs.

I don't know of anyone else giving a presentation with this much historical depth and fiber animal breadth.

Instructor: Susan Wilson

Duration: 1.5 hours

Skill Level: All levels

Date/Time Offered: 8/4 10:30-12 pm

Suggested Reading: "Women's Work: The First 20,000 Years" by Elizabeth Wayland Barber

Star Parties (Astronomy)

St. Louis Astronomical Society will come out on Saturday evening to conduct a star party and will bring their love and passion for astronomy to our Summit and share their knowledge. A few other days throughout the Summit, the YMCA will have telescopes available for our use which will give you a chance to learn about locations of constellations and planets.

Instructor: St. Louis Astronomical Society and YMCA staff

Duration: 1.5 hours

Skill Level: All levels

Date/Time Offered: 8/2, 8/5 9-10:30 pm YMCA; 8/6 8:30-10 pm St. Louis Astro. Society

Storytelling "Stories 'n Stones"

"Stories 'n Stones" combines the storytelling talent of Marilyn Kinsella and the primitive technology skills of her husband, Larry. The opening Iroquois story, "Skunny Wundy and the Stone Giant," relates the adventure of the trickster, Skunny Wundy, and his encounter with the stone giant. After the story, Larry demonstrates the primitive tools that were used

in the story and uses props like stone axes, atlatls, spears, banner stones, flint knives, bows, and arrow points. The program concludes with Marilyn telling a riveting story from the Northwest called "The Whistling Tsonaquas."

Instructor: [Marilyn Kinsella](#) and [Larry Kinsella](#)

Duration: 1.5 hours

Skill Level: All Levels

Date/Time Offered: 8/4 3:45-5:15 pm

Stream Walk on Shut-in Creek & Off-Trail Walkabout, Field Trip

Walking up the middle of Shut-in Creek in its remote valley is a treat, but no trail leads to it. The only way to get there: 1.6 miles on the Lindsey Mtn. Trail-dirt road (just 150 ft. of climb), then ¾ mile off trail on a pleasant ridge walk, dropping 550 ft. After a leisurely walk up the stream, we re-trace our route. Entirely within the Bell Mtn. Wilderness Area, "a unique habitat not typical of the Ozarks. The diversity of plant and animal species are more common to old-growth forests." (NFS) We'll practice with GPS units to stay "on track" on the off-trail portion and to find a summer view or two. Requires good agility and good fitness levels; strenuous portions; rugged terrain. 50-55 min. drive each way.

Instructor: [Dave Linthicum](#)

Duration: 8 hours

Skill Level: All Levels

Date/Time Offered: 8/5 7:30-3:30 pm

Recommended items to bring:

Sports sandals or sneakers which will get wet, raingear, water, protection from bugs and, if you can borrow one, a GPS (Global Positioning System) unit or two. Shorts are fine, as there are few briars or poison ivy. Hiking boots required.

To Catch a Bat

The Forest Service has periodically trapped bats at the Y grounds as part of its bat surveying techniques. Lynda will erect temporary bat netting on-site on the Y grounds in the early evening hours. Trapped bats will be removed from the netting and temporarily displayed to the participants prior to their release. Lynda will highlight the differences between the species of bats and demonstrate the types of data typically collected during a bat survey.

Instructor: [Lynda Mills](#)

Duration: 1.5 hours

Skill Level: All levels

Date/Time Offered: 8/3 8:30-10 pm

Using Your Noodle

Join us at the beach for some fun and lively activities using foam Noodles! Whether on dry land or in the water, work as a team to use these Noodles in ways never intended!! Fun for everyone!

Instructor: [Sue Sabo](#)

Duration: 1 hour

Skill Level: All levels

Date/Time Offered: 8/2, 8/5 3:45-4:45 pm

What's My Place in Conservation in a World of Diminishing Resources?

Do you ever feel helpless when you hear our leaders speak about taking care of our environment as being of low priority? Stephen Mahfood, former Director of Missouri Department of Natural Resources will share information on what is going on with conservation in Missouri and how they are addressing the environmental needs of the state, and what they hope to do in the future. This will be an informative session and will touch on topics important to such organizations as Conservation Federation of Missouri (a state group loosely affiliated with the NWF), the Audubon Society, the Missouri Dept. of Natural Resources, and the Missouri Dept. of Conservation.

Instructor: [Stephen Mahfood](#)

Duration: 1.5 hours

Skill Level: All levels

Date/Time Offered: 8/2 8:30-10 am

Wildflower Ramble

We will take an easy hike around the Trout Lodge neighborhood to see what is in bloom and what is not. The Ozarks are rich in endemic plants and although we won't have time to find them all today, we will get a good taste of the summer wildflowers. They all have stories: what are their names, why do they grow here, how have humans used or misused them, how do we tell them apart? It is hot in Missouri in August, but these flowers can take it.

Instructor: [Nels Holmberg](#)

Duration: 2 hours

Skill Level: All levels

Date/Time Offered: 8/3 1:30-3:30 pm

Recommended Items to bring: Sun protection, water, comfortable walking shoes, camera (if desired), notebook (if desired), and if possible, a 10X hand lens.

Recommended Reading:

Kurz, Don *Ozark Wildflowers*

Denison, Edgar *Missouri Wildflowers*

A good wildflower website:

Dan Tenaglia: Missouri Plants: <http://www.missouriplants.com>

The Wonders of Nature Ramble

Come along and see what the open-eyed and open-minded naturalist can find in virtually any setting. There is no need to be bored, wherever we find ourselves. An awareness of our more-than-human neighbors and the settings they occupy can enhance any moments we are privileged to spend out-of-doors. What does it mean to give yourself over to natural history, and how might we best prepare for, enact, and learn from such gifts?

Instructor: [Bob Pyle](#)

Duration: 2 hours

Skill Level: All levels

Date/Time Offered: 8/4 8:30-10:30 am, 8/5 8-10 am

Recommended items to bring: Bring binoculars, comfortable footwear and water

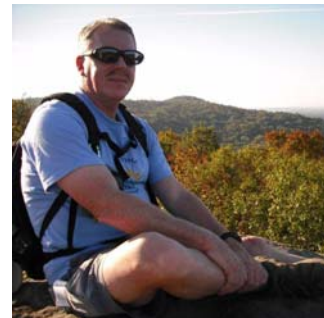
HIKING PROGRAM

Hiking Directors



Chris Lenz and his family have attended 13 summits in the last 16 years. He has been active as a volunteer for the summits since 2003 and this will be his 6th year working with the hike program both as an assistant and leader. He is a full time human resources manager and part time firefighter-EMT from northern Illinois who loves the outdoors. He brings his EMT experience to the hike program to help everyone have a safe and enjoyable experience. His family operates a 1200 acre grain farm west of Chicago. He and his family are a product of Summit experiences learning about the environment and they bring that knowledge back to the farm and city.

Danny McMurphy is a native Missourian and lives in his hometown of Sullivan near Meramec State Park. He has been married to Linda, an RN, for 40 years and they have four children, sons: Kelly 39, of Ann Arbor, MI where he is a Professional Scouter, Shannon 38, a software specialist with a DOD contractor for Scott AFB in Illinois. There are 3 granddaughters and 1 grandson among the two sons; daughters, Caitlin, 23, and Molly, 21, both of whom are still in college. Danny graduated from the U. of Missouri – Rolla (currently Missouri S & T) in 1971 with a BS in Geology and later in 1993 with an MS in Engineering Management. He retired from the U.S. Army Corps of Engineers, St. Louis District, in 2009. He has been involved in the Boy Scout program for over 50 years and besides being an Eagle Scout, he has served in many capacities, including Scoutmaster, Explorer and Venturing Advisors and as a Webelos Leader. His sons are also both Eagle Scouts. He is currently active with the Ozark Trail Association where he serves as membership chairman, and with the Missouri Master Naturalist program with the Miramiguoa Chapter, as well as being a volunteer in local state parks and conservation areas. He is also an active member of St. Anthony Catholic Church where he is a member of the choir and serves as a lector. He enjoys, hiking, backpacking, canoeing, baseball, wildflowers, and taking photos of the outdoors and his family.



Hike Leaders



Kathie Brennan found herself at an OTA construction outing on the Middle Fork-John Roth Memorial section in 2005 and quickly became hooked. When her daughters were younger, the family was involved with Girl Scouts, doing family camping trips, floating the creeks and rivers to hiking the trails in the parks they camped in. Not a stranger to any work or task, Kathie retired from Wal-Mart after 20 years and currently works as an Adm. Asst. for an Alternative school, does part time retail sales with Bath & Body Works and in the summer months, Kathie is a seasonal naturalist for Missouri's Trail of Tears State Park. Becoming involved with the OTA/OT has provided Kathie opportunities to not only meet a very diverse group of volunteers from all over the state, but also through training to become a USFS certified sawyer, crew leader and event leader while sharing her passion for the outdoors with kids of all ages at events big and small. Living in Cape Girardeau MO with husband Calvin; daughters Casey and Emily are also volunteers as well as boy friend Marcus, and husband Derek and her 2 1/2 yr old grandson Stratton. As a family, they have adopted a 3.1 mile section of the Middle Fork - John Roth Memorial section.

In 2008, Kathie received the USDA Forest Service 32 state Eastern Region "Volunteer Crew Leader/Supervisor" Award, was recognized at the National Trail Symposium last year as Missouri's "Trail Worker of the Year" for 2009 and was just announced as the 2010 "Volunteer of the Year" for the Mark Twain National Forest. Kathie was also appointed to the Missouri Governor's Trail Advisory Board, is a member of the Ozark Trail Association Board of Directors, a member of the OTA's Construction & Maintenance committee and is an avid fund raiser for the OTA. She serves as the President of the Cape Girardeau Beta Sigma Phi City Council and is her chapter's president.

Paul Corley is a native Missourian from the Chesterfield, Creve Coeur area of St. Louis County! He had 2 brothers & 7 sisters; he was the 6th from the top with 4 elder sisters & 1 elder brother! Wheat & soybean fields surrounded the family property where his mother's family had operated a truck farm & raised 10 children. His family lived adjacent to a dairy farm, a creek & a quarry. They all grew up hiking in the surrounding area. He graduated from St. Louis University High School and Forest Park and Meramec Community Colleges. Paul has worked for the Crest Industry in sales for approximately 35 years. Besides locally in Missouri and Illinois, Paul's hiking, canoeing, biking, and kayaking experiences span the United States from the Great Allegheny Trail Alliance & C&O National Park Trail to the Mickelson trail in South Dakota and parts of the Cowboy Trail in Nebraska. He has solo backpacked through the Indian Peaks Wilderness on the Cascade Creek Trail & the Pawnee Pass Trail as well as numerous backpacking trips in Colorado, New Mexico, southeast Kentucky, Arkansas, the Smokies, Big Bend National Park, Yellowstone and Yosemite National Parks and the Muir Woods. Paul has a trip planned for the Smokies this summer with his companion Diane whom he has been together with for 27 years & helped to raise her 2 children & now two grandchildren! He performs volunteer work for the Ozark Trail Association and is also a member of several hiking groups



including MO Trails, Mostly Trails, St. Louis Trails Club, Shawnee Hills Trails Club, Beyond the Trail, Let's Hike, WGNSS, & SLAG.



Cindi Norris is a lifelong resident of Cape Girardeau, MO. Cindi is a 50-something single who never had much interest in being outdoors until she discovered trails in the summer of 2009. Cindi started out with short walks of less than a mile and has worked up to completing 7-10 mile hikes. Hiking has since become an obsession. Cindi hikes nearly every weekend; rain, shine, snow or heat-wave, even if it is just a short local trail, and is always accompanied by her camera. Cindi prefers hiking alone, even on remote trails. However, after a few group hikes with the local Conservation Department, Cindi started searching for other hikers. That search led her to St. Louis Nature Meetup Group in May 2010 and by June she began organizing hikes that would take the group out of St. Louis and into areas in Central Missouri and Southern Illinois. In March 2010 Cindi paired up with a friend and formed a new outdoor Meetup group, Beyond the Trail. With both groups she has organized popular day trips and weekend events.

Matt Tenny is an avid hiker, biker, and canoeist. Matt has been married to Diane for 31 years and they have two grown children, a son and a daughter. He has led annual Super bowl Sunday hikes the last 4 years and loves getting into the outdoors with his camera to see what he can find. Matt became a Missouri Master Naturalist 2 years ago and is very active in the Miramiguoa Chapter at Shaw Nature Reserve. He is also a trail building volunteer for the Ozark Trail Association.



Hike Assistant



Jan Houser retired after teaching 33 years in upper elementary. She is currently tutoring on a private basis. She stays very busy with her personal activities of horseback riding, working out, and walking her dogs. She also enjoys reading, puzzles, and spending time with her husband, Steve. The Summits have been very important to her family, and she has volunteered in many capacities over the years.

HIKES

NOTE FROM HIKE FACULTY

Driving mileages are approximate one way figures from the YMCA of the Ozarks. Hikes below are in order longest to shortest by hiking distance (round trip).

Most hikers prefer loop hikes over out and back hikes, so premier northern Ozarks hike leader Danny McMurphy has designed all but one of the hikes as primarily loop hikes!

Also see the "Summer Hiking Safety in Missouri" at the bottom of the list of hikes for important information.

Long Hikes

Council Bluff Lake Shore

General Location: Council Bluff Lake Recreation Area, Mark Twain National Forest. South of Potosi with entrance off of Hwy DD in Iron County (33 miles, approx. 45 minutes.) (\$3 USFS self parking daily fee at the Wild Boar Boat Launch.)

Distance: 12 mile loop; can be hiked in either direction.

Elevation Gain: 100 feet

Aerobic: Moderate-Strenuous (longest hike, but the least hilly hike per mile)

Technical: Easy

Date/Time Offered: 8/4 7:30-3:30 pm

Highlights: Originally designed for mountain biking, this makes a great hiking trail and we are always within sight of the lake as the trail follows near the shoreline. On the south end near the Enough Boat Launch it does pass some old structures that were part of the town of Enough, Missouri. The trail crosses over the dam above a very narrow hollow (gorge) through which the Big River flows; we also cross the Big River as a creek on the southwest portion of the trail. The trail also goes through the beach/picnic area, has a couple of spurs that go the campground, and has a spur that connects to the Trace Creek and the Middle Fork Section of the long distance Ozark Trail. Beaver can sometimes be seen in the lake and in the lake waters in the hollows.

Buford Mountain

General Location: Buford Mountain Conservation Area, Missouri Department of Conservation. Just east of Hwy. 21 off Hwy. U, south of Caledonia and just north of Elephant Rocks State Park (30 miles, 35 minutes.)

Distance: 10 miles, out and back and loop.

Elevation Gain: 700 feet + (*)

Aerobic: Strenuous

Technical: Easy

Date/Time Offered: 8/3 7:30-3 pm

Highlights: Buford Mountain is the longest mountain in the St. Francois Mtns. at 5+ miles long. From the newer parking lot just off Hwy U, the trail follows a road to the original parking lot. Then we will hit the forest and climb up to the highest point at near 1,700', passing some old rock walls from long ago homesteaders, then traverse along the ridge top, (*) crossing four other high points above 1,500' before going down the backside into a creek valley below 1,000' and then back up to the ridge top before doubling back on a portion of the trail. The main feature on top will be crossing Bald Knob where we have a terrific view of the Bellevue Valley to the west of the mountain. The trail goes through

igneous glades beside hardwood forests, and we may see deer, turkey, and squirrel along the way.

Bell Mountain Wilderness

General Location: Mark Twain National Forest, 15 miles south of Potosi on Hwy. 21, then 8 miles west on Hwy. 32 and 5 miles south on Hwy. A (45 miles, 55 minutes)

Distance: A 10-mile loop starting at the Hwy. A trailhead, going to the summit then continuing north to the Joe's Creek Loop junction and continuing the loop, then doubling back on the initial trail segment to Hwy. A.

Elevation Gain: 650 feet

Aerobic: Moderate

Technical: Easy, but some rugged footing on the rocky terrain.

Date/Time Offered: 8/6 7:30-3:30 pm

Highlights: Some of the best views across the Ozarks in Missouri in the only National Wilderness area for this Summit. Characterized by steep felsite and rhyolite outcroppings. Oak and hickory are the predominant trees species. Shut-in Creek below the summit to the east is a perennial spring-fed stream in a deep canyon. Igneous glades abound on the summit and on the hike back down to the Hwy A trailhead. There is a lot of wildlife in this area and one might catch a glimpse of the collared lizard sunning itself in a glade.

Wilderness Trail Loop

General Location: Meramec State Park. North on Hwy. 185 which goes right through the park (35 miles, approx. 45 minutes)

Distance: 9 miles, loop (sign says 10 miles, GPS says otherwise)

Elevation Gain: 300 feet

Aerobic: Moderate

Technical: Easy

Date/Time Offered: 8/2 7:30-3 pm

Highlights: This is a moderate hike. We will hike along and through intermittent stream beds across ridge tops, pass through restored dolomite glades, pass a conical sinkhole, and hike by Copper Hollow Spring that flows year-round and was the site of a pig-iron smelter 100 years ago. The remnants of the old Copper Hollow Mine are hiding near a backcountry campsite that the hike leader could take us to if time permits. This hike is mainly in the hardwood forests, except for the glades and some pine groves.

Mina Sauk Falls

General Location: Taum Sauk Mtn. State Park. Starts on the handicapped trail to Missouri's high point, Taum Sauk Mountain at 1,772'. West of Arcadia off Hwy. 21 (55 miles, 1 hr 15 minutes)

Distance: 3 to 5 miles (3-mile loop to and from the Falls, another mile out and a mile back to/from the Devil's Tollgate. Programmed as a 'long trail' due to the ruggedness and the assumption that we'll reach Devil's Tollgate.

Elevation Gain: Approximately 600 feet to the Devil's Tollgate and 400 feet to the top of Mina Sauk Falls

Aerobic: Moderate to Strenuous

Technical: Moderate; the footing is very rugged.

Date/Time Offered: 8/5 7:30-3:30 pm

Highlights: This trail takes us from the [highest](#) point in Missouri to the tallest waterfall to rocky glades with scenic views. A short-walk along a wheelchair-accessible trail brings us to the top of the mountain at the [highest point in the state](#), 1,772 feet above sea level. Beyond this point, the trail becomes very rocky and rugged. Oak-hickory woodland of the St. Francois Mountains Natural Area gives way to distant views across rocky, open glades, home to prairie grasses and desert cacti. The trail passes along the top of Mina Sauk Falls, the tallest waterfall in Missouri. Cascading 132 feet over a series of ledges into Taum Sauk Creek, this [wet-weather waterfall](#) flows best after a rain. A hike back up the mountain brings us back to the trailhead. This is a strenuous and challenging trail. Be prepared for rugged, rocky climbs. We may encounter some water crossings in wet weather. One mile further down the Ozark Trail into the Taum Sauk Creek Valley is the Devil's Tollgate where the trail passes through two very large pieces of rhyolite. It is rugged to climb down and cross over the debris below the waterfall, but once we get back on the trail it is an easy hike (2-miles round trip) on to the Devil's Tollgate and back to Mina Sauk Falls. The glades are also home to the collared lizard.

Short Hikes

YMCA Ozarks: *The Other Side*

General Location: **No driving.** Start and finish at Trout Lodge, YMCA of the Ozarks. (0 miles, 0 minutes)

Distance: Roughly 4.5 miles, mostly out and back

Elevation Gain: roughly 400 feet

Aerobic: Moderate

Technical: Moderate (poorly cleared trails in places)

Date/Time Offered: 8/3, 8/4 8-12 pm

Highlights: The other side of "our" 360 acre lake features thousands of acres of woods. We'll visit a small but quite real "Natural Bridge" and some mining remains (from French lead and tiff miners; the French came from Paris for the 1904 St. Louis World's Fair, and some stayed.) We'll mostly hike along lakeshore, around remote Hawkins Cove, and across several (hopefully) wind-blown promontories.

YMCA Ozarks: *This Side*

General Location: **No driving.** Start and finish at Trout Lodge, YMCA of the Ozarks. (0 miles, 0 minutes)

Distance: Roughly 2.75 miles, loop

Elevation Gain: roughly 250 feet

Aerobic: Moderate

Technical: Easy

Date/Time Offered: 8/5, 8/6 8:30-11:30 am

Highlights: We'll hike in the woods for 1.5 miles on "our" side of the lake, contouring along steep hillsides, to reach Cold Spring (55 degrees) and its three million gallons a day flow (now captured in trout ponds.) Ferns, mossy boulders, dolomite outcroppings will line our route to the 101 year-old picturesque ponds. After a brief visit to the rocky Force Renault Creek canyon beneath the dam, we'll poke around two old cemeteries dating from the mid 1800s, then return along the lakeshore looking for some exotic trees (one with "knees.")

Deer Run Trail

General Location: **Onondaga Cave State Park**. West on Hwy. 8, north on Hwy. E (25 miles, approx. 35 minutes)
Distance: 2.25 miles, loop, beginning at the campground shower house
Elevation Gain: 100 feet
Aerobic: Moderate - Easy
Technical: Easy
Date/Time Offered: 8/3 7:30-11:30 am

Highlights: *This hike will start with a visit to the Visitors Center to encompass the nature and historic displays on the area. We'll turn uphill into the woods within 100 feet of the start. This hilly, natural trail is of moderate difficulty with steps and bluff heights of 100-plus feet along the Meramec River. We will encounter dolomite forest and glades. A south-facing glade is under restoration to eliminate invasive red cedar trees. At one point, we will pass a concrete building that is the man-made entrance to Cathedral Cave. The trail also offers some spectacular views from bluff tops along the Meramec River where we might see turkey vultures or bald eagles soaring.*

Shut-ins Loop

General Location: **Johnson Shut-ins State Park**. Hwy. 21 south from Potosi to Hwy N then 13 miles east to the park (55 miles, approx. 1 hour)
Distance: 2.25 miles, loop
Elevation Gain: 100 feet (0 on the handicapped accessible trail to the shut-ins)
Aerobic: Easy – moderate
Technical: Easy
Date/Time Offered: 8/4, 8/6 7:30-12 pm

Highlights: *We'll start with a stop at the new Visitors Center to see the nature and historical exhibits. This rocky gorge along the East Fork of the Black River has thrilled visitors for generations. From the main Shut-ins parking lot, a wheelchair-accessible 0.3 mile trail leads to an observation platform over the flowing waters of the shut-ins. The trail becomes more difficult, continuing up a stairway. Entering the East Fork Wild Area, the Shut-Ins Trail (blue markers) follows natural tread through oak-hickory forest and small glade clearings, eventually returning to the main parking lot. This somewhat strenuous loop trail involves some short rocky climbs and a long series of stairs. We may also encounter some water crossings in wet weather.*

Hughes Mountain

General Location: Hughes Mountain Natural Area, Missouri Dept. of Conservation, 10 miles south of Potosi on Hwy. 21 then 5 miles East on Hwy M (30 miles, 35 minutes)
Distance: 1.50 miles, out and back
Elevation Gain: 380 feet
Aerobic: Moderate
Technical: Easy
Date/Time Offered: 8/2, 8/3 7:30-11:30 am

Highlights: Hughes Mountain rises 380 feet above the floodplain of the nearby Big River and is comprised of rhyolite, a type of igneous rock. The rhyolite of Hughes Mountain formed from ancient lava flows around 1.4 billion years ago. Under certain conditions as

lava cools it can form columnar joints. At Hughes Mountain there is a fascinating area of columnar jointed rhyolite rocks. Columnar joints are a geologic feature of many well known sites around the world such as Devil's Tower in Wyoming and the Giant's Causeway in Ireland. Views from the top of Hughes Mountain are good of the surrounding countryside (a 360 degree view). Way back in 1806 John Hughes (the mountain's namesake) had a grist mill and sawmill along the Big River just north of the Natural Area. The nearby town of Irondale was a center of iron ore production in the 1800s and had a St. Louis Council Boy Scout camp, Camp Irondale, until 1965. We'll see how the land around Hughes Mountain has certainly changed since John Hughes set up his mills at its base.

Elephant Rocks & Engine House Loop

General Location: **Elephant Rocks State Park**. South of Potosi on the East side of Hwy. 21 south of Caledonia (35 miles, 40 minutes)

Distance: 1.5 mile, loop

Elevation Gain: 60 feet

Aerobic: Easy

Technical: Easy

Date/Time Offered: 8/2, 8/4 7:30-11:30 am

Highlights: The giant elephant-shaped granite boulders are the star at Elephant Rocks State Park. The coarsely crystalline red granite forms are popular with history buffs (who like to read the names of the 19th century miners who used to work in the area and who carved their names into rocks), children (who love to climb and scramble over and through the rocks) and parents (who revel in taking pictures of their children pretending to push the rocks.) The park has a trail (paved) that winds through the rocks, which is an interpretative Braille trail. The formation of this extraordinary herd of elephants began during the Precambrian era about 1.5 billion years ago. Molten rock, called magma, accumulated deep below the earth's surface. The magma [slowly](#) cooled, forming red granite rock. As the weight of the overlying rock was removed by erosion, horizontal and vertical cracks developed, fracturing the massive granite into huge, angular blocks. Water permeated down through the fractures, and groundwater rounded the edges and corners of the blocks while still underground, forming giant rounded masses. Erosion eventually removed the disintegrated material from along the fractures, and exposed these boulders at the earth's surface.

Physical and chemical weathering in low areas on the crest of the large granite outcrop has produced distinct, roughly circular depressions up to several feet in diameter, called "solution pans" or "tinajitas." Temporary pools of water that collect in these depressions often provide a home for tadpoles and mosquito larvae.

Since no official census of the herd has ever been taken, the exact number of "elephants" inhabiting the park is unknown. Although the elephant rocks are continually eroding away, new elephants are constantly being exposed. Information collected on Dumbo, the patriarch of Elephant Rocks State Park, shows that he is 27 feet tall, 35 feet long and 17 feet wide. At a weight of 162 pounds per cubic foot, Dumbo tips the scales at a hefty 680 tons.

Natural Wonders Trail

General Location: **Meramec State Park**. North on Hwy. 185 which goes right through the park (35 miles, approx. 45 minutes)

Distance: 1.3 miles, loop
Elevation Gain: 80 feet
Aerobic: Easy
Technical: Easy
Date/Time Offered: 8/5 7:30-11:30 am

Highlights: *We'll visit the nature and historical exhibits in the Visitors Center to begin this hike* which takes off from the Visitors Center Parking lot. The trail itself will take us pass the gated opening to Mushroom Cave and on to another cave/sinkhole feature where the water entering the sinkhole comes out on the other side of the hill from a cave opening. The trail also goes along Elm Spring Creek behind the Visitors Center where we might catch a glimpse of a beaver. The ovenbird and wood thrush are common along this trail.

(State Parks are operated by the Missouri Dept. of Natural Resources)

Summer Hiking Safety in Missouri

Little Critters: Ticks (i.e. Lyme disease and ehrlichiosis), **chiggers**, **mosquitos**, and **gnats** can be a problem. Use deet or other good repellent. Preparing clothing, including your hat, with Permanone, recommended. Missouri also has the usual **black widow and brown recluse spiders** so know what they look like (but we probably won't see any.) **Hornets**, **yellow jackets**, and other stinging insects can also be seen along the trail. Hornets are usually not a problem since we can see their nests, but the yellow jackets live in the ground and a hiker can step on their nesting hole unknowingly and they can attack. If you are allergic to stings then you should be hiking with an **epi pen** and your hike leader should know about your allergy.

Other Critters: Missouri has 3 poisonous **snakes**, the rattlesnake, the copperhead, and the cottonmouth. We are most likely to come across a copperhead while hiking but even that is a seldom occurrence. As with any snake you might encounter, just leave it be, go around it, and move on down the trail. Some of the Ozarks are also infested with **feral hogs**. They will probably avoid our group on their own, but don't mess with them if we do encounter them along any trail.

Plants: **Poison ivy** is everywhere in Missouri during the summer. Know what it looks like and avoid it. If we do come in contact with it, then wash yourself and your clothing when you return. The oil in the plant is the culprit and even if it gets on your clothing you could keep catching it if you don't wash the clothes. Many pollens will be out and about in the air and you may need some **allergy medicine** with you, or take it before you start hiking.

Keep on drinking: The combination of high temperature and high humidity in Missouri during the summer months can be quite stifling in the forest when there is no breeze. We recommend water, water and more water, snacks, Gatorade (or similar product), oranges, bananas, etc. We recommend up to three quarts for the longer hikes and at least two for the shorter hikes. There will be few places, if any, to re-fill our water bottles, without treating the water, on the longer hikes. Tablet purifiers or something like Polar Pure are recommended in each group that is doing a long hike so you can

refill and thus don't have to carry so much water. Be sure you know the symptoms and first aid for **heat stroke and heat exhaustion**.

Clothing: Long (zip-off) quick-dry pants are recommended. A quick dry shirt, long or short sleeve as you choose. Boots or sturdy low cut hiking shoes with a wicking sock; no tennis shoes or cotton socks! Those hiking in shorts may want gaiters. You might also want to have a hiking staff or trekking pole(s) for some of the rougher terrain.

Skin/Eyes Protection: Sunscreen, broad brimmed hat, sunglasses.

Rain: Poncho or raincoat. It's hard to wear rain gear in the high heat and humidity in Missouri summers. The rain can be a relief when we are hiking, so quick dry clothing is recommended, *down to the underwear*, or wear pants/shorts with a mesh lining. At the minimum, carry an emergency poncho in your day pack.

Storms: Missouri is in tornado alley and although August is usually a dry month, storms and lightning during the month can be quite severe and flash flooding can also occur in the dry creek beds. A storm might drop the temperature 10-15 degrees, but then it will pop right back up as the storm moves on and the sun comes out again (but the humidity may also rise after the rain shower.)

Lightning Safety while hiking:

A. **Crouch down** (not near the base of a tree, head down, like a "human basketball" with your feet together and, if possible, on padding between you and the ground (a foam sleeping pad, non-metallic frame pack with clothing in it.) You may place hands over ears to minimize hearing damage from thunder.

B. **Avoid proximity** (minimum of 15 ft.) to other people.

C. **Avoid water. Avoid the high ground. Avoid open spaces.** Do move down off to the side of a high spot or ridge. (Forests with fairly dense trees are relatively safe if you stay away from large or dead trees; overhangs under a cliff (or the wall of a building or edge of a pavilion or garage) are not.

Personal medications: Please let your hike leader know about any personal medications or conditions that could affect you on the trail during moderate to strenuous activity. Don't be shy or slow about stopping the group if you develop a "hot spot" (a blister forming) or have other possible problems.

BOOK CLUB

Kathy Blank and Marla Krasinsky will lead the book discussion group this year. The emphasis will be on participation as opposed to lecture. It is more interesting to hear various points of view about the surroundings and experiences of the people in the books compared to your environments and challenges. The two books are different from each other, so if you hate one we hope you'll like the other. The group is mostly adults, but all are welcome.

The books are:

***A COUNTRY YEAR* by Sue Hubbell and *BALD KNOBBERS vigilantes on the Ozarks Frontier* by Mary Hartman and Elmo Ingenthron**

A COUNTRY YEAR is a year in the life of beekeeper, Sue Hubbell, after her marriage of 30 years ends and she is left alone on her farm where she needs to learn to take care of herself and all that will support her for the rest of her days. She introduces us to her neighbors, her successes, challenges, and her daily life on the farm. The first of her challenges that took my breath away was the need to fell a tree to have wood for the winter to keep herself and her two dogs warm through the bitter cold.

THE BALDKNOBBERS vigilantes of the Ozarks frontier is a history drawn from court and newspaper records of a group of settlers who took the law into their own hands when the appointed law keepers failed to protect people's lives and property. The first motivating crime was the shooting of the storekeeper and his wife for refusing to extend credit to an armed and angry citizen who had run out of money. Organization meetings were secret and the goal was to stop marauders from killing and plundering. We can discuss whether, over time, the Baldknobbers became marauders themselves.

EVENING PROGRAMS

Monday, August 1

Opening Night ~ Missouri's Natural History and Culture

Opening night special guest [Stephen Mahfood](#) has a 35 year track record as an innovative administrator and leader in the environmental, energy and natural resource fields. Steve was appointed by three successive governors over a 7 year period as Cabinet Secretary to lead the Missouri Department of Natural Resources and in that role was responsible for managing the environmental, energy, geological, cultural and historic resources of the state. He also represented Missouri and the US in a number of prominent roles including chairing the NAFTA-US Governmental Environmental Advisory Commission, serving on the EPA's Environmental Financial Advisory Board (EFAB) for 13 years. He received the "United States Presidential Environmental Achievement Award" in 1997. Steve currently is advising the Nature Conservancy and many influential organizations on climate change, energy, environmental, natural resource and carbon management issues. He holds a Bachelors Degree in Environmental Science from Rutgers University and is a graduate of the Yale University Environmental and Management Leadership Program.

Tuesday August 2

[Robert Michael Pyle](#), better known to Summiteers as Bob Pyle, is returning to Summits after a long hiatus during which he's been keeping very busy. We are so fortunate to have him back in our midst. For thirty years, Pyle has been a full-time freelance writer, teacher, speaker, and biologist. His fifteen books include *Wintergreen*, *The Thunder Tree*, *Where Bigfoot Walks*, *Chasing Monarchs*, *Walking the High Ridge*, and *Sky Time in Gray's River* as well as *The Audubon Society Field Guide to North American Butterflies* and several other standard butterfly works. They have won the John Burroughs Medal, a Guggenheim Fellowship, three Governor's Writer's Awards, a Pacific Northwest Booksellers' Award, the Harry Nehls

Award for Nature Writing, the National Outdoor Book Award for natural history literature, and have been finalists for the Orion and Washington Book Awards. *Mariposa Road: The First Butterfly Big Year* is just out from Houghton Mifflin Harcourt. A novel, *Magdalena Mountain*, is in progress along with collections of poems and essays. Pyle's popular essay-column, "The Tangled Bank," appeared in 52 consecutive issues of *Orion Magazine*.

Listening to Bob will be an evening to remember!

Wednesday, August 3

A typical Missouri country dance-- Join Mac McKeever, renowned dance caller, and friends as Mac leads us in dances of all types. Novice to experts will love following his calls and dancing to the music of his talented band. All ages love this evening of interactive fun.

Thursday August 4

"Ozarks Crafts Night" Join us for a festival of crafts where you can wander from booth to booth and see some real crafters at work and get a taste of life in the Ozarks. Local crafters will be offering demos of their work and some of their products for sale. Try your hand at a few of these crafts! From tin smithing and finger weaving, to duck decoys and chair caning, you'll get a chance to see how self-sufficient these folks are!

Friday August 5

Up close and personal with a flock of RAPTORS! The World Bird Sanctuary of St. Louis joins us for a thrilling evening of birds of prey and education. For all ages, this program features birds of prey including falcons, hawks, owls and vultures. Not only will you see different species of raptors, but you'll also learn a vulture's secret weapon and how to identify a bird of prey in the wild. Sit back and enjoy an up close view as some of the birds soar right over your head!

Saturday, August 6

Closing program---Skits, songs, annual Summit slide show describing our wonderful experiences that occurred during the Summit week. This a time to celebrate, say "good bye," appreciate, and acknowledge the value of this wonderful yearly environmental experience. It is also a time to begin looking forward to the next Summit gathering, which will be the next summer at [YMCA of the Rockies](#) in Estes Park, Colorado, July 7th through the 13th.

FACULTY



When not acting as President of Family Nature Summits **Chris Blank** is a private practice attorney based in Newport Beach, California. His firm's focus is business litigation, business law, and bankruptcy. In addition to his law practice he sits on the board of a local educational non-profit organization and founded a political action committee to support local candidates. He has been coming to the Nature Summits since 1994. This is the highlight of the year for he and his sons. He has been a committed environmentalist since the 1970s and is excited about continuing the Summit mission.

Annie Tiberio Cameron is a fine art nature photographer with special emphasis on teaching. She brings to this Summit - in 2011, her 30th - over 37 years of elementary school teaching, coordinating environmental education programs for Massachusetts Audubon Society, and teaching photography for the National Wildlife Federation, University of Massachusetts, Bay Path College among many other institutions. Her photos have been exhibited in galleries and museums across the country, received awards and have been published in numerous calendars, magazines, newspapers, and other publications, including two editions of a top-selling Sierra Club book entitled: *Mother Earth -- Through the Eyes of Women Photographers and Writers*, as well as its accompanying postcard book. Annie also tours an elementary school program entitled "*Death Valley, Okefinokee and Beyond*," a geography-based program that looks at natural history and culture throughout the US, that corresponds well with the upper elementary school curriculum. She has transformed her UMass course entitled, "*Digital Photography for the Non-Art Major*" to a 100% online format, meaning anyone, anywhere can take it. And, she can teach it from home in Vermont! Talk to her if you'd like to know more about her elementary school program or UMass online photo course.



Dave Egan got his undergraduate degree in the Valley and Ridge Province of central Pennsylvania at Bucknell University and then his graduate degree in the glacial plains of the Miami River Valley at Wright State University in Ohio. Dave has been involved with geologic studies nationwide as a geologist supporting cleanup of soils, groundwater, streams and estuaries at Superfund sites and other industrial or former industrial facilities. He has also helped to interpret geology for hikers and other enjoyers of the outdoors for the past 20 years. In his spare time, you may find him biking.

Brete Griffin has been passionate about birds since his early teens when he drove around the back roads of central West Virginia looking for Screech Owl families after dark. He still gets excited finding birds for people while leading birding outings. Ask anyone who went out in Utah when the 3-toed Woodpecker was found! He has assisted in bird fieldwork projects in California, Oklahoma, Texas, and West Virginia; He has conducted his own field work for a Master of Science degree by studying Gary Vireos in

Big Bend National Park in Texas. He continues to lead birding groups on trips in the field and also teaches a community education birding course through a school board in the Toronto area in Ontario, Canada. He is also very active in bird education and conservation programs and does a Birdathon every year to help support and promote various bird conservation projects and campaigns. One of his dreams is to head back south to help study and learn more about the rediscovered population of the Ivory-billed Woodpecker!

Marilyn Hartness is an avid outdoors person. She likes to hike, swim and ride horses. These interests enhance her career as Assistant Professor of Art at Wingate University. She teaches Ceramics Fundamentals and Ceramic Art History to college students at this liberal arts university in North Carolina. She has instructed courses with the Family Summit Staff for 12 years. She instills a challenge of discovery in her students (young and old) , with the focus on shapes of natural objects and the emphasis on the art of seeing: line, shape, color, mass, and space. Creativity plus nature = enjoyable learning with a focus on art.

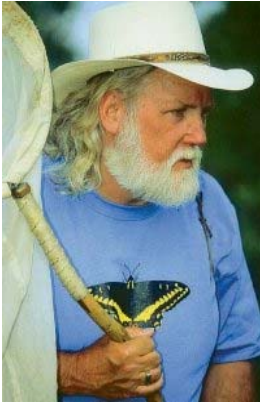


Bruce Lampright currently serves as the Naturalist for Brays Island Plantation in Beaufort County, South Carolina. Originally from St. Paul, Minnesota, Bruce has lived in coastal South Carolina for the past 35 years. After graduating from the University of South Carolina (with a degree in Marine Science) he conducted research at USC's Baruch Marine Lab and served as Education Coordinator for the Belle W. Baruch Foundation, both near Georgetown, SC. Lampright also served as the Director of USC-Beaufort's Coastal Zone Education Center and is a founding member and former President of the South Carolina Marine Educator's Association. In 1999 Bruce and two others started the SC Master Naturalist Program, now administered by Clemson University, with programs training naturalists throughout the Palmetto State. Lampright has been involved in environmental education for over 30 years and was the 2004 recipient of the South Carolina Marine Educator of the Year Award. He is also a Master Gardener and recently received his Coast Guard Captain's License. This will be his eighth summit as a faculty member.

Dave Linthicum is a Recipient of the 2000 Jug Bay Wetlands Environmental Award, Dave used maps to help save 2200 acres on the Potomac and 1200 acres on the Patuxent in Maryland from becoming 4200 townhomes and a gravel pit respectively. He's been either 1st or 2nd in his category on 5 of the last 6 national orienteering championship days.



"Bob" Robert Michael Pyle was born and raised in Colorado and has lived in the Pacific Northwest, California, New England, and Great Britain. His undergraduate degree in Nature Perception and Protection and Master of Science in Nature Interpretation from the University of Washington were followed by a doctorate in Ecology and Environmental Studies from Yale University. He has worked as a Ranger-Naturalist for Sequoia National Park, for the wildlife department of Papua New Guinea, as Northwest



Land Steward for The Nature Conservancy, and as co-manager of the Species Conservation Monitoring Center of the World Wildlife Fund and IUCN in Cambridge, U.K. In 1971 he founded the international Xerces Society for Invertebrate Conservation (<http://www.xerces.org/>), and later chaired its Monarch Project. For thirty years, Pyle has been a full-time freelance writer, teacher, speaker, and biologist. His fifteen books include *Wintergreen*, *The Thunder Tree*, *Where Bigfoot Walks*, *Chasing Monarchs*, *Walking the High Ridge*, and *Sky Time in Gray's River* as well as *The Audubon Society Field Guide to North American Butterflies* and several other standard butterfly works. They have won the John Burroughs Medal, a Guggenheim Fellowship, three Governor's

Writer's Awards, a Pacific Northwest Booksellers' Award, the Harry Nehls Award for Nature Writing, the National Outdoor Book Award for natural history literature, and have been finalists for the Orion and Washington Book Awards. *Mariposa Road: the First Butterfly Big Year* is just out from Houghton Mifflin Harcourt. A novel, *Magdalena Mountain*, is in progress along with collections of poems and essays. Pyle's popular essay-column, "The Tangled Bank," appeared in 52 consecutive issues of *Orion Magazine*. Bob Pyle has taught writing and natural history seminars for many conferences, institutes, and colleges around the world, and presented hundreds of invited lectures and keynote addresses. In recent years he has served as Visiting Professor of Environmental Writing at Utah State University, Kittredge Distinguished Visiting Writer at the University of Montana, and place-based writing instructor for the Aga Khan Trust for the Humanities in Dushanbe, Tajikistan. He has been named Distinguished Alumnus by both the College of Forest Resources at the University of Washington and the Yale School of Forestry and Environmental Studies, and received a Distinguished Service Award from The Society for Conservation Biology. For thirty years he has lived along Gray's River, a tributary of the Lower Columbia River in southwest Washington, with his wife, artist and botanist Thea Linnaea Pyle. Facebook fan page: <http://www.facebook.com/pages/Robert-Michael-Pyle/293832101900>

Monica Piche and Brian Yinger

Monica was born in Winnipeg, Manitoba, Canada. She moved to the United States when she was 11 and currently lives in Powell Ohio. She is 27 years old and engaged to Brian Yinger. This will be her 4th Summit. Monica is a hair stylist and has her own business at the Salon Lofts.

Brian was born in Columbus, Ohio and has lived there his entire life. He is currently 28 years old and will be turning 29 August 3rd at the Summit. This will be his 15th summit.

Brian is a full time musician and plays the guitar along with some vocals. He is in a band called Acoustic Mayhem.

Monica and Brian have a 2 year old little girl named and Mesa and this will be her 2nd Summit.

GUEST LECTURERS

Tim Banek Originally from South Dakota, Tim received a BA in Biology from Augustana College Sioux Falls, SD and a MS in Biology from the University of South Dakota, Vermillion, SD. He began his career with the Oklahoma Department of Wildlife Conservation in northeast Oklahoma. In 1986, he accepted a position with the Missouri Department of Conservation and worked in southwest Missouri as a Fisheries Management Specialist and Fisheries Management Biologist for 22 years. Tim has a diverse history of successful

accomplishments for the Department, including working with private landowners, and conducting close coordination with city municipalities, communities, and several state and federal agencies. Tim developed and implemented unique smallmouth bass regulations on Elk River that has improved the fishery in that stream. He also led the effort to improve walleye management in Missouri and showed that stocking high priority lakes with walleye fingerlings significantly improved walleye fishing. Tim is a member of the Missouri Chapter of American Fisheries and the Wildlife societies and represented the Department on the North Central AFS Walleye Technical Committee for 15 years. Tim has presented papers at several professional meetings and has organized and conducted interagency and public meetings. In February 2008, Tim accepted MDC's first 1-year leadership training position to serve as Invasive Species Coordinator in central office. The leadership training position was extended and his promotion was made permanent with the Conservation Commission's approval of the vacancy management plan in October, 2009. He is enjoying the diversity of his responsibilities and the challenges related to invasive species. A few of Tim's accomplishments as Invasive Species Coordinator include editing and working to get Missouri's Aquatic Nuisance Species Plan submitted through the Governor's office, approved by the ANS Task Force and to administer the annual federal grant to implement the plan. Tim also had a major role in using bioagent insects in Missouri to combat the noxious spotted knapweed. Long term bioagent evaluations are currently being conducted on Department areas in southern Missouri. He also continues to provide training and workshop opportunities for staff and produces invasive species materials to help educate Missouri citizens about invasive species.



Jeff Beringer has degrees in Wildlife and Fisheries Science from the University of Wisconsin – Steven Point and the University of Tennessee. He has worked on a variety of carnivore species including grey wolves, black bears, bobcats, fishers, river otters, and coyotes. He started with the Missouri Department of Conservation in 1986 as a Wildlife Damage Biologist, then, worked as a deer research biologist, a turkey biologist and grouse biologist. Jeff's current responsibilities include research and management of furbearers and large carnivores and chairing the mountain lion response team in Missouri.

Kathy Blank graduated from Northwestern University in 1952 and is the Mom of Chris Blank and Grandmother of Alan and Matt. This will be her fifth Family Summit.



Lonnie Hansen is a resource scientist with the Missouri Department of Conservation working mostly on elk and deer. He is an Illinois native and received a B.S. in zoology from Western Illinois University in 1971 and a Ph.D. in Zoology from the University of Illinois in 1978. Before moving to Missouri, he was a research biologist at the Illinois Natural History Survey (1978-1987) working on squirrels and deer. He has been with the Missouri Department of Conservation for 24 years. Lonnie is primarily responsible for deer and elk research, assessing deer population status, public attitudes toward deer and deer hunting, proposing hunting regulations for deer seasons, and more recently elk.

Nels Holmberg lives on a sheep farm in east central Missouri with his wife Sandra and 10 Australian shepherds. A born again environmentalist, his great interest is understanding, cataloging and preserving the great diversity of fascinating organisms living on this earth. Sandra's desire to be a farmer led to Nels' interest in ecology which led to quitting his job and going back to UM-St. Louis for a MS degree in Ecology, Evolution and Systematics. He now spends as much time as possible in the field, looking for and learning new plants. Nels believes that the quality of a nature hike depends greatly on the knowledge all the group members bring along.



Carroll Jackson, who is blind, is a field representative for Leader Dogs for the Blind and regularly travels independently all over the United States with his leader dog hunter using the Trekker, a GPS devise for the blind.



As a young teen, **Amy Kilpatric** attended the very first conservation summit that was held at the YMCA of the Rockies. When she became a parent she wanted her own children to experience the joys of being Summiteers, so she and her husband, Michel Lillmars, packed up their three little girls, along with the water bottles, ponchos, binoculars and field guides and headed to another Rocky Mountain summit. The daughters were hooked and continued to encourage Mom and Dad to take them to summits all over the country.

As a native of the Ozark area, Amy Kilpatric spent her childhood climbing trees, playing in the woods behind her home, going on wildflower walks, and floating on the crystal clear water of the Ozarks streams. She continues to share her love of the natural world with children in her position as the lead science and nature teacher at Community School in St. Louis county. Every year Amy leads her sixth grade science students on geology tours of Meramec Springs Park and Onondaga Cave. During a camping trip to the area, Amy assists her students in water quality monitoring of streams in the Meramec River Watershed. Amy is delighted to have the opportunity to share her love of the Ozarks with her fellow Summiteers.

Larry Kinsella's interest in stone tools began as a boy on the farm when he found arrowheads. In the early 1970's, he went to an adult field school in Kampsville, IL and dug at the famous Koster site. That began his work as an amateur field archaeologist and his association with the Illinois Association for the Advancement of Archaeology. As a volunteer at the World Heritage site – Cahokia Mounds, he spent countless hours working on digs. In 1979, he began making stone tools. At first he knapped flint into arrowheads. Soon other stone tools and ancient techniques caught his interest – stone axes, atlatls, spears, pottery, fire-making, and more. He not only made stone tools but used them and experimented with them. Since 2000, he has worked full-time as a professional field archaeologist, historical



replicator and experimenter, demonstrator, and teacher. His work in archaeology has been honored with several awards over the years. The most prestigious was in 2010, from the Society of American Archaeology – The Don Crabtree Away – the highest honor given to any amateur archaeologist for his outstanding work. For more information, go to www.flintknapper.com

Marilyn Kinsella, Taleypo the Storyteller, of Fairview Heights, IL, has been telling stories since 1981. She tells stories "...from nursery schools to nursing homes." Her folktales come from many cultures, but her favorite stories are those she wrote about growing up in her small, Mid-western town. Her stories are full of energy and a delicate blend of action and word imaging. As a full-time, free-lance teller she travels to where stories want to be told. Besides telling, she often leads workshops, writes, and performs puppet plays. In 2010, she became a published author with her book Storytelling and QAR Strategies. She has told stories to hundreds of schools and libraries in the Midwest and has been featured at many festivals and special events including The St. Louis Storytelling Festival Under the Arch, The Celtic World Festival in Ohio, Cahokia Mounds, and The Illinois Storytelling Festival. For more information visit her website at www.marilynkinsella.org

Marla Krasinsky is a former teacher, an avid reader and an enthusiastic Summiteer. She began her summit experiences Big Sky, Montana when she and her husband, Arthur, brought their grandson, Dean Kullmann, for a grandchild trip. They were so excited about the summit that the next summer they brought the Kullmann family to Maine. Then they added their son's family. All love sharing these summer experiences with friends they've made through the years. Marla is looking forward to leading a book group this summer.

Stephen Mahfood has a 35 year track record as an innovative administrator and leader in the environmental, energy and natural resource fields. Steve was appointed by three successive governors over a 7 year period as Cabinet Secretary to lead the Missouri Department of Natural Resources and in that role was responsible for managing the environmental, energy, geological, cultural and historic resources of the state. He also represented Missouri and the US in a number of prominent roles including chairing the NAFTA-US Governmental Environmental Advisory Commission, serving on the EPA's Environmental Financial Advisory Board (EFAB) for 13 years. He received the "United States Presidential Environmental Achievement Award" in 1997. Steve currently is advising the Nature Conservancy and many influential organizations on climate change, energy, environmental, natural resource and carbon management issues. He holds a Bachelors Degree in Environmental Science from Rutgers University and is a graduate of the Yale University Environmental and Management Leadership Program.



Lynda Mills is a Certified Wildlife Biologist with the Mark Twain National Forest. She has worked for the Forest Service for 20 years and has expertise in fire ecosystems, timber management for wildlife, red-headed woodpecker recovery, and Indiana bat recovery.

Sue Sabo first contracted the Conservation Summit Virus (CSV) about 17 years ago when her parents invited her to join them at the Blue Ridge Summit and she has been infected with it ever since! Since the CSV is so contagious, she has managed to infect the rest of her family and a few others along the way! The symptoms of CSV include an intense desire to collect scarves of differing colors, greet others infected with the same virus, and see parts of this country that un-infected people never get a chance to experience! About 6 years ago she developed a new symptom--an uncontrollable desire to become even more involved in the Summit experience.



Thus, I have now entered the "Faculty" phase, working with the Adult Adventure Class and eventually leading the Family Adventure class on her own. Two years ago the CSV mutated into a new but very similar virus known as the Family Summit Virus (FSV), and hopes to remain infected with this new virus for many years to come! When not indulging her viral symptoms, she is a media specialist in an elementary school near Columbus Ohio, and also a member of the Improv Comedy Troupe, Squishy! www.getsquishy.com



Jo Schaper has been an outdoors person since she first went camping with the Girl Scouts. A lifelong Missourian, she combines interests in writing and geology as the assistant editor for the River Hills Traveler, a Missouri outdoors newspaper and as a freelance writer. She has been a Volunteer in Parks nature interpreter for the Missouri State Park system since 1989, an active caver since 1986, and most enjoys sharing her passion for rocks and water with others. <http://www.riverhillstraveler.com>

Eugene Vale While doing plant ecology research towards a Masters at St. Louis University, Eugene Vale became active in the Grotto [caving club] there. On his outdoor adventures, he found himself interpreting much of the natural world to others. He came to think, "Wouldn't it be great to be paid for doing this?" Mr. Vale worked his way through school on a teaching fellowship and at an opticoelectronics factory. In 1980 the Missouri State Parks took over the Fisher Cave Tours at Meramec State Park. Members of the Missouri Speleological Survey, including Mr. Vale, advised state parks on this. That year was his first year as a seasonal interpreter. He led cave tours at Fisher Cave and expanded to cover other interpretive programs at the Park. He also was a seasonal at Babler, and in 1985 was appointed as the first full time naturalist at Onondaga Cave State Park. Mr. Vale moved to the Research Management and Interpretation Program in 2003, where his background in electronics and computers has helped the Mo. DNR switch to digital AV, and develop new types of interactive exhibits. He has received three Missouri Masterpiece Awards from the Missouri State Parks, is a Fellow of the National Speleological Society, has received two awards from the National Association for Interpretation Region VI, and is past president of the Association of Missouri Interpreters. He has received three awards from that organization. Mr. Vale has degrees in Biology and is married to Jo Shaper who has a degree in geology. She says, "Together we make a planet." The two are known for their joint programs.

