



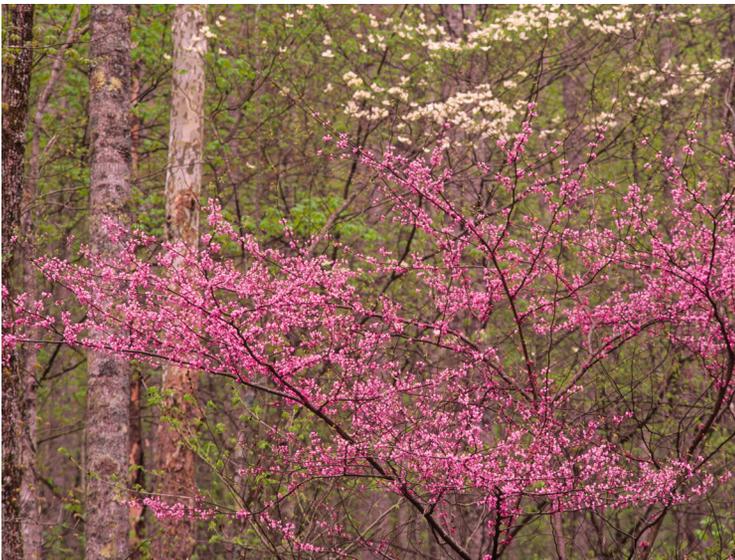
SMOKIES GUIDE



SWEET DEAL IN THE SMOKIES—SEE PAGE 11



THE OFFICIAL NEWSPAPER OF GREAT SMOKY MOUNTAINS NATIONAL PARK & SPRING 2014



BILL LEA PHOTO

Redbud trees are some of the showiest “wildflowers” in the Smokies.

More than Dogwoods Bloom in the Park

Dogwood trees are famous for their spring flowers. So are redbuds. But many people never come to realize that almost every tree and shrub in the Great Smoky Mountains is indeed a flowering plant, that it’s a “wild flower” in its own right, just one with a woody stem or trunk.

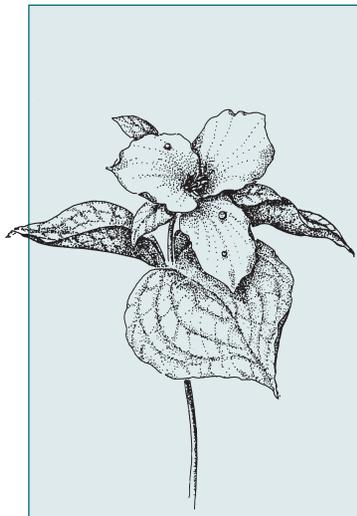
In fact, some of the most gorgeous wildflowers in the Smokies are trees. The tuliptree (aka yellow poplar) is a member of the magnolia family that blooms in late April with big green and orange sherbet-colored blossoms. Yet because its flowers bloom on branches 60 or more feet above the ground, most visitors never notice them unless the wind has knocked a flower to the ground or they are viewed by a person looking down from a steep slope.

Ditto for Fraser and umbrella magnolia trees. Their cream-colored flowers are as big as soup bowls and would

attract photographers like bees if they didn’t happen to blossom high in the hardwoods.

Well over 200 trees and shrubs are native to the Smokies and their spring and summer flowers embody the “wondrous diversity of life” that the park is famous for. See how many of these beautiful arbors you can photograph in flower this season.

- ___ Flowering dogwood (white) April
- ___ Redbud (magenta) March
- ___ Serviceberry (white) March-April
- ___ Silverbell (white) April-May
- ___ Flame azalea (orange) April-July
- ___ Mountain laurel (white) May-June
- ___ Tuliptree (green/orange) April-May
- ___ Fraser magnolia (cream) April-June
- ___ Sweetshrub (maroon) April-June
- ___ Buckeye (yellow) April



TRILLIUMS

Trillium plants have three leaves and its flowers have three petals, hence the “tri” in its name. Ten different species of native trilliums are found in the national park, including white (shown), yellow, painted, stinking-Benjamin, and bashful wake robin. They bloom during April and May at the low and mid elevations.



BILL LEA PHOTO



Adult coyotes grow up to 4 feet long. Males weigh 24-35 pounds; females 22-29 pounds. Females give birth to 5-10 pups in the spring.

Coyotes Find Home in the Smoky Mountains

It was 1982 when the very first coyote was documented in Great Smoky Mountains National Park. Thirty years later sightings of this wild canid have become an every day occurrence in places like Cades Cove.

Previously confined to the West and Southwest, the coyote’s remarkable expansion was apparently triggered by the clearing of forests and the demise of the gray wolf (the larger wolves exclude coyotes from their territories).

The coyote’s adaptability also has a lot to do with its success. Like the American black bear, coyotes eat almost everything from grass and watermelon to deer and wild hogs. Coyotes parenting skills also give them a leg up in the competitive game of survival.

Many coyotes keep the same mates for extended periods, or even life. Both males and females hunt food for pups and share other parental duties. Some pups are even fortunate enough to have “nannies,” adult females without pups who help watch over the young while the parents are off hunting.

In the Great Smoky Mountains, coyotes court and mate in late winter. Pups are born in spring in underground dens, often ground hog or fox dens that have been expanded. Pups are born blind and do not emerge from the den for the first month. Parents are extremely protective and will move their offspring to a new den if humans or other predators come near.



smokies trip planner

to order maps and guides: www.SmokiesInformation.org

smokies guide

Smokies Guide is produced four times per year by Great Smoky Mountains Association and Great Smoky Mountains National Park. Publication dates are roughly as follows:

SPRING: March 15

SUMMER: June 1

AUTUMN: September 1

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Abrams Creek and Balsam Mountain will be open this year.

camping in the the national

The National Park Service maintains developed campgrounds at nine locations in the park. There are no showers or hookups other than circuits for special medical uses at Cades Cove, Elkmont, and Smokemont.

Campsites at Elkmont, Smokemont, Cataloochee, Cosby, and Cades Cove may be reserved. For reservations call 1-877-444-6777 or contact www.recreation.gov. Sites may be reserved up to six months in advance. Reservations are required at Cataloochee Campground. Other park campgrounds are first-come, first-serve.

Site occupancy is limited to six people and two vehicles (a trailer = 1 vehicle). The maximum stay is 14 days.

Special camping sites for large groups are available seasonally at Big Creek, Cades Cove, Cataloochee, Cosby, Deep Creek, Elkmont, and Smokemont. Group sites must be reserved. Call 1-877-444-6777 or contact www.recreation.gov. Group sites may be reserved up to one year in advance.

The list below shows number of sites, elevations, fees, approximate 2014 operation dates, and maximum RV lengths. Visit www.nps.gov/grsm for more information.

ABRAMS CREEK 16 sites, elev. 1,125', \$14, open May 23-Oct. 13, 12' trailers
BALSAM MOUNTAIN 46 sites, elev. 5,310', \$14, open May 23-Oct. 13, 30' RVs
BIG CREEK 12 sites, elev. 1,700', \$14, open April 11-Oct. 26, tents only
CADES COVE 159 sites, elev. 1,807', \$17-\$20, open year-round, 35'-40' RVs
CATALOOCHEE 27 sites, elev. 2,610', \$20, open March 14-Oct. 31, reservations required, 31' RVs
COSBY 157 sites, elev. 2,459', \$14, April 11-Oct. 31, 25' RVs
DEEP CREEK 92 sites, elev. 1,800', \$17, open April 11-Oct. 31, 26' RVs
ELKMONT 220 sites, elev. 2,150', \$17-\$23, open March 14-Nov. 29, 32'-35' RVs
LOOK ROCK 68 sites, *Opening yet to be determined*
SMOKEMONT 142 sites, elev. 2,198', \$17-\$20, open year-round, 35'-40' RVs

accommodations

Le Conte Lodge (accessible by trail only) provides the only lodging in the park. Call (865) 429-5704.

For information on lodging outside the park:
Bryson City 1-800-867-9246
Cherokee 1-800-438-1601
Fontana 1-800-849-2258
Gatlinburg 1-800-267-7088
Maggie Valley 1-800-624-4431
Pigeon Forge 1-800-251-9100
Sevierville 1-888-766-5948
Townsend 1-800-525-6834

pets in the park

Pets are allowed in frontcountry campgrounds and beside roads as long as they are restrained at all times. Pets are not allowed on park trails, except for the Gatlinburg and Oconaluftee River trails. Dogs on these trails must be leashed.

road closures

The following roads close for the winter. Listed below are the estimated 2014 opening dates.

Clingmans Dome—April 1

Balsam Mtn—May 23

Roaring Fork—April 11

special events

April 25-27

Music of the Mountains:
Sugarlands Visitor Center

April 15-April 19

Spring Wildflower Pilgrimage: parkwide

May 17

Cosby in the Park

picnic areas

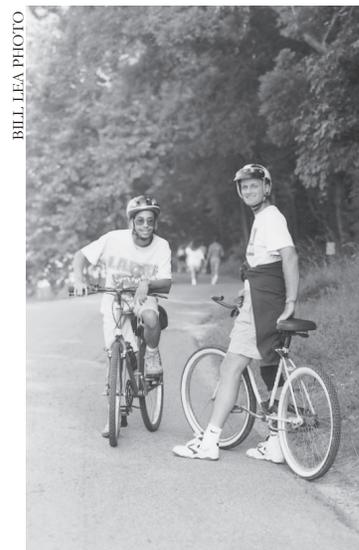
Please see pages 8-9 for locations of picnic areas. Chimneys opens March 15, Collins Creek opens April 4; Cosby and Big Creek open April 11. Heintooga opens May 23. Look Rock may not open. All other picnic areas are open year-round. All have charcoal grills for cooking.

visitor centers

Spring hours of operation are, Oconaluftee & Sugarlands: 8-5 in March; 8-6 in April & May. Cades Cove: 9-6:30 in March; 9-7 in April; 9-7:30 in May. Clingmans Dome: 10-6.

other services

There are no gas stations, showers, or restaurants in the national park. Mt. Le Conte Lodge is the only lodging.



Bicycle morning in Cades Cove.

bicycling

Most park roads are too narrow and heavily traveled by automobiles for safe or enjoyable bicycling. However, Cades Cove Loop Road is an exception. This 11-mile, one-way, paved road provides bicyclists with excellent opportunities for viewing wildlife and historic sites.

Helmets are required for persons age 16 and under and are strongly recommended for all bicyclists.

From May 7-Sept. 24, on Wednesday and Saturday mornings from sunrise to 10:00 a.m., only bicycles and pedestrians are allowed on Cades Cove Loop Road. Bicycles may be rented at the Cades Cove Campground store.

park information

for additional information, visit www.nps.gov/grsm

Gatlinburg, TN elev. 1,462'			Mt. Le Conte elev. 6,593'			
AVG. HIGH	LOW	PRECIP.	AVG. HIGH	LOW	PRECIP.	
Jan.	49°	27°	4.0"	36°	18°	6.7"
Feb.	53°	28°	4.1"	37°	19°	5.6"
March	62°	35°	5.5"	44°	25°	7.0"
April	71°	42°	4.5"	52°	31°	6.7"
May	77°	50°	5.7"	58°	39°	8.0"
June	82°	58°	5.8"	64°	47°	8.7"
July	85°	62°	6.3"	67°	50°	9.0"
Aug.	84°	61°	5.3"	67°	49°	7.6"
Sept.	79°	55°	4.7"	62°	44°	7.2"
Oct.	70°	43°	2.9"	55°	35°	4.7"
Nov.	60°	34°	3.4"	46°	27°	6.8"
Dec.	51°	28°	4.6"	38°	20°	6.4"

The above temperature and precipitation averages are based on data for the last 20 years. Temperatures are in degrees fahrenheit. An average of over 84" (7 feet) of precipitation falls on the higher elevations of the Smokies. On Mt. Le Conte, an average of 82.8" of snow falls per year.

horse riding

Horseback riding is generally available from early March through November. Rates are \$30 per hour. Most stables have maximum rider weight limits of 225 or 250 pounds and age restrictions for children. Please call the stables below or stop at a visitor center for detailed information.

Cades Cove (865) 448-9009
cadescovestables.com
 Smokemont (828) 497-2373
smokemontridingstables.com
 Smoky Mtn. (865) 436-5634
smokymountainridingstables.com

Sugarlands (865) 436-3535
sugarlandsridingstables.com

Hayrides and carriage rides (\$12 per person) are available from Cades Cove Riding Stable. Wagon rides (\$10 per person) are offered at Smokemont. Souvenir photos, tee-shirts, hats, and ice may be available. Soft drink vending is available.

The park service operates horse camps at Cades Cove, Big Creek, Cataloochee, and Round Bottom. Call 877-444-6777 or visit www.Recreation.gov for reservations.



Fishing for brook trout is now allowed in most park streams.

fishing

Fishing is permitted year-round in the park, but a Tennessee or North Carolina fishing license is required. Either state license is valid throughout the park and no trout stamp is required. A special permit is required for the Cherokee Reservation and Gatlinburg. Licenses are available in nearby towns. Fishing with bait is prohibited.

A free fishing map with a complete list of all park fishing regulations is available at visitor centers.

DRIVING DISTANCES & ESTIMATED TIMES

Cherokee, NC to:

Gatlinburg: 34 miles (1 hour)
 Cades Cove: 57 miles (2 hours)
 Newfound Gap: 18 miles
 (½ hour)
 Clingmans Dome:
 25 miles (¾ hour)
 Cataloochee: 39 miles
 (1½ hours)
 Deep Creek: 14 miles (½ hour)

Gatlinburg, TN to:

Cherokee: 34 miles (1 hour)
 Cades Cove: 27 miles (1 hour)
 Newfound Gap: 16 miles
 (½ hour)
 Clingmans Dome:
 23 miles (¾ hour)
 Cataloochee: 65 miles (2 hours)
 Greenbrier Cove: 6 miles
 (¼ hour)
 Deep Creek:
 48 miles (1½ hours)

Townsend, TN to:

Cades Cove: 9 miles (¼ hour)
 Newfound Gap: 34 miles
 (1¼ hours)
 Gatlinburg: 22 miles (¾ hour)
 Cherokee: 52 miles (1½ hours)
 Look Rock: 18 miles (½ hour)
 Cataloochee:
 87 miles (2¼ hours)

JIM MOWBRAY PHOTO



Primitive backcountry shelters like this one at Double Springs Gap are located along the Appalachian Trail and near the summit of Mt. Le Conte. Reservations are required for all campers in the backcountry.

Backcountry Camping in the Smokies

Camping at a backcountry campsite or shelter can be an exciting adventure for persons properly equipped and informed. To facilitate this activity, the National Park Service maintains over 800 miles of trails and more than 100 backcountry campsites and shelters throughout the park. One of the greatest challenges for backcountry campers is deciding where to go. Here are some tools to help.

1. Go online to view the park's official trail map (www.nps.gov/grsm/plan-yourvisit/maps.htm), which shows all park trails, campsites, and shelters. Park rules and regulations are also listed here. If you wish, you can purchase the printed version of the trail map for \$1 by stopping at any park visitor center or calling (865) 436-7318 x226 or shopping online at www.SmokiesInformation.org.
2. Call or stop by the park's backcountry office, which is open every day from 8:00 a.m. to 5:00 p.m. The office is located in Sugarlands Visitor

Center, two miles south of Gatlinburg on Newfound Gap Road (U.S. 441). (865) 436-1297.

3. Make your reservation through the backcountry office at Sugarlands Visitor Center (by phone or in person) or online at www.smokiespermits.nps.gov.

Reservations and permits are required for all overnight stays in the backcountry. The cost is \$4 per person per night. Reservations may be made up to 30 days in advance.

Spring hikers should be especially aware of the danger of hypothermia—the lowering of body temperature. The combination of rain, cold, and wind is especially dangerous. At the park's higher elevations, hypothermia can be a threat even during summer.

To prevent hypothermia, carry good rain gear at all times. Layer clothing that provides warmth when wet (not cotton). Be prepared for sudden weather changes, especially at the high elevations.



bears in the smokies

How life begins for new inhabitants of Great Smoky Mountains National Park.

THE HUNGRY SEASON



MARCH 3

Spring is stirring in the rich cove on the west side of Mt. Le Conte. On the forest floor, hepatica leaves are bright green. In the trees, mourning doves are billing and cooing and a squirrel leaps from branch to branch eating flower buds. The cubs and #230 have yet to leave their den. As the cubs grow, the dark tree cavity is becoming cramped. #230 occasionally stirs, but the cubs are full of life, scrambling about and biting and swatting. The mother has not taken food or water since late November. She sleeps while the cubs' eyes open, while their teeth emerge through their gums, and their jet black coats thicken.

Photographs courtesy of North American Bear Center

JANUARY 30

Eighty feet above the ground, in a hollow nook within an ancient red oak tree, a female black bear known as #230 has just given birth to her first cubs. All three are female. The old oak creaks in the wind and sleet sifts in through the opening to the dark den.

The tiny cubs squirm until they find their place to nurse. Each is about the size and weight of an apple. They are toothless, nearly hairless, and blind. #230 slumbers. Exactly four years ago she was a newborn herself.



North American Bear Center



North American Bear Center

MARCH 30

Yesterday afternoon the sun reached the trunk of the old red oak and the den warmed. #230 stretched and turned and the cubs tumbled about like puppies. Each weighs almost five pounds now, every ounce a testament to the rich nutrients in their mother's milk.

#230 pulls herself up to the opening and looks out into the forest. Although she has barely moved for nearly four months, she slips through the opening with grace and agility. From the time she squeezed into the den in December her weight has dropped from 160 pounds to 110 and her family has grown by 400%. She descends from limb to limb, pausing to call to the cubs. The first pops out of the hole, sniffs the air, then dives back inside. Lightning flashes, and far away thunder rolls.

Hunger finally persuades the cubs to abandon the den. Their comically large paws and claws stick to the tree trunk like suction cups. Mother descends the last branchless section of trunk butt first, inciting a shower of shredded bark and lichens. The cubs, still 30 feet above the ground, stare at each other wide-eyed. Finally the cubs back down as well. The moment they reach the ground the cubs are eager to nurse.



Bill Lea



Bill Lea

MAY 8

In the grainy half-light of dawn, black-throated green warblers are singing frantically. #230 is snuffling through the damp leaf litter looking for squawroot, maple seeds and grubs to appease her intense hunger. For every pound the cubs gain, she seems to lose two. Although the forest is vibrant and growing, most food available to bears is high in fiber but low in calories.

The thud of a footfall sends the mother into fight or flight mode. She sniffs the air, then rips downslope to where the cubs are wrestling. Her sharp "hurrumph" captures their attention and sends them sprinting up the trunk of the nearest tuliptree. #230 climbs an adjacent tree.

But as the footfalls and twig snaps change direction toward the bears, the mother hurrumphs again. This time the cubs descend their tree as quickly as firefighters down a pole. Leaving the trail, the hikers trample through the woods, their cameras held out in front of them. Mother bear descends also and chases the cubs farther down the mountain, then up another tree.

By the time the hikers give up on their pursuit, #230 is near the top of a maple tree, trembling with exhaustion.



Bill Lea

JUNE 11

It's near dusk and the bear family gallops across the road, barely avoiding being hit by a speeding pickup. The mother bear freezes at the forest edge. Her cubs follow suit. Gradually the snorting and rooting sounds in the leaf litter draw closer. There are at least 11 wild hogs working their way down the road shoulder. As they draw near, #230 suddenly lunges and swats one of the smaller non-native hogs with her big paw, then subdues it with a bite to the neck. The rest of the herd stampedes noisily into the dark forest.

Along with the unripe blackberries and pine beetle grubs they found that morning, the day has been an absolute feast for the bears. They are now full-fledged members of the delicate web of life that is Great Smoky Mountains National Park.

national park news

National Park Service News Briefs

Official Smokies 25-cent Piece Now Available

IN JANUARY the U.S.

Mint released into circulation its Tennessee—Great Smoky Mountains National Park quarter as the latest coin in the “America the Beautiful” series.

The 25-cent piece is one of 56 quarters celebrating federal public lands that is produced by the Denver and Philadelphia mints. Uncirculated versions of the Smokies quarter and other collectible coins are available for sale in park visitor centers.



Chimneys Trail To Close Mondays-Thursdays

THE VERY POPULAR CHIMNEY TOPS Trail off Newfound Gap Road will close during the week beginning May 5 and continuing through October 16. The trail will be closed every Monday through Thursday so the Trails Forever crew can do some large scale rock work as part of their effort to completely rehabilitate the badly eroded trail. The two-mile long Chimney Tops Trail leads to a rocky summit with exceptional views.

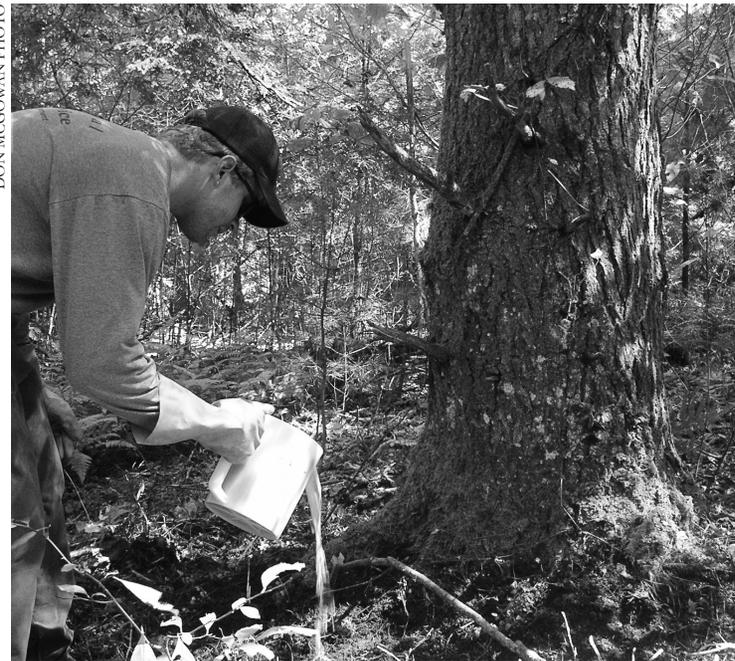
Reservations for Synchronous Firefly Viewing at Elkmont Can be Made Online

IN LATE MAY OR EARLY JUNE, thousands of visitors will gather near the Elkmont Campground to observe the naturally occurring phenomenon of *Photinus carolinus*; a firefly species that flashes synchronously. Because of the popularity of this natural event, parking passes are required for all vehicles. Passes are limited and can be obtained at www.Recreation.gov one month prior to the variable dates. There is a \$1.50 administrative fee for the passes. For more information visit www.nps.gov/grsm.

Please Leave Firewood at Home

FIREWOOD OFTEN HARBORS non-native insects that can devastate our forests. Beetles such as the emerald ash-borer and Asian longhorned lay their eggs in dead wood. Please do not bring your firewood into the park. You can collect dead and down wood in the park or purchase wood at some campgrounds.

Wicked Winter Helped Hemlocks



DON MCGOWAN PHOTO

A park technician uses a pesticide soil drench to adelgid-proof a hemlock tree. Soil drenches can protect trees for five years or more.

The coldest winter in 20 years has turned out to be a game changer for ranger Jesse Webster and his crew's crusade to save hemlock trees in Great Smoky Mountains National Park. Since the mid-winter cold spells, Webster has been networking with his fellow foresters and they now believe that temperatures around 0 degrees F are deadly to the non-native hemlock woolly adelgids (a-dell-jids) which have devastated hemlock trees in the East.

“Around 3 degrees F, adelgids start to die,” Webster said. “At -5 F, mortality is close to 100%. Last winter we hit -4 in some areas of Cades Cove and -17 on Mt. Le Conte.”

Webster's crew, including Americorp staffers Kate Beckner, Kateri Tonyan, and Evan Cross, have just started assessing what percentage of adelgids in the Smokies were “cold-killed,” but thus far the results are encouraging. Their survey of hemlock trees at an elevation of 2,400 feet in the Cosby area of the park revealed that 96% of

the adelgids were killed. In Cades Cove, at an elevation of 1,800 feet, adelgid mortality appears to be over 80%. Better still, it seems that the predator beetles that the Park Service, U.S. Forest Service, and University of Tennessee have been hustling to rear and release, survived the winter much better than their prey. Webster explained that while adelgids spend the winter highly exposed on hemlock needles, predator beetles can crawl into the trunks of trees for shelter. With more predators and fewer adelgids, Webster is optimistic that the predator beetles could exact a heavy toll on their prey this season and achieve a better balance between predator and prey.

Eastern hemlock trees were once one of the most common and largest tree species in the Smokies. Trees over 170 feet tall have been measured in the park, and for many years the world record hemlock tree resided here. Hemlocks occupy a wide range of habitats from stream gorges to slopes at elevations

near 5,000 feet. It's estimated that since the adelgid arrived in the park around 2001, it has killed over 70% of the hemlocks in old-growth stands.

“This has really changed our work plans for 2014,” Webster said. “We can skip for a year or two treating some of the high elevation sites and make some serious progress at the low elevations.”

The Park Service uses a variety of treatments to save hemlocks, from pesticide sprays to root drenches and trunk injections. These methods are highly effective for a few years, but are labor intensive. Webster's crew has treated over 10,000 acres in the park using these strategies. He hopes to treat more than 20,000 hemlocks in 2014 alone.

Long term, however, the predator beetles that keep adelgids in check in their native Japan offer the best hope for saving hemlocks. The Park Service, Forest Service, UT and others have released a half million of the miniscule black beetles in the Smokies and elsewhere since 2003. In some areas of Western North Carolina, where the releases started earlier than in the Smokies, swarms of predator beetles now cover many hemlock stands.

“We don't need to kill every last adelgid to save our hemlock trees,” Webster said. “Hemlocks can tolerate a certain number of adelgids.”

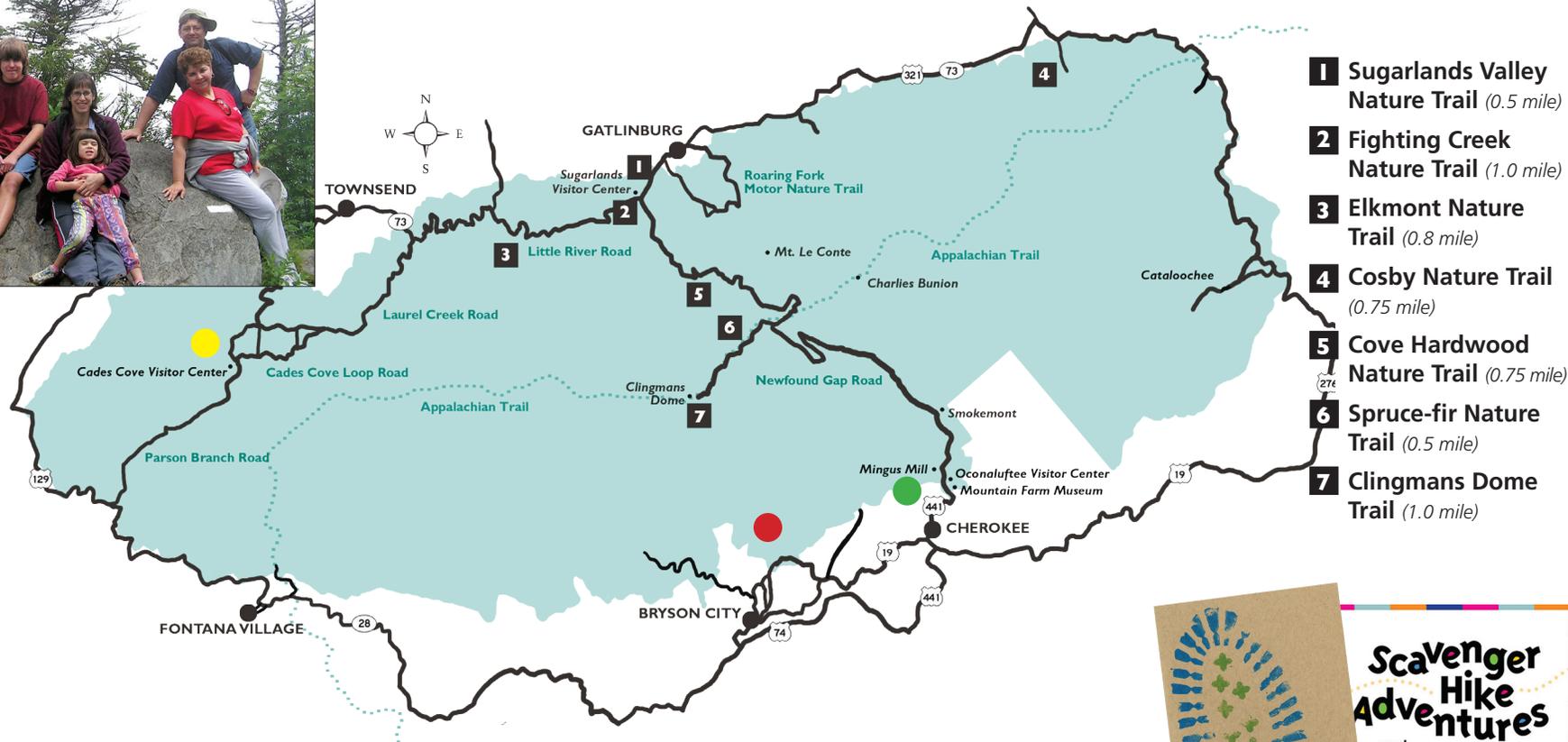
Because the Park Service has been successful at saving a remnant population of hemlocks, some type of recovery is increasingly possible. On top of the cold kills and promise of predator beetles, the cost of pesticides for treating hemlocks has been reduced dramatically, enabling the crew to treat even more trees in coming years.

hit the trail

Day hiking in the Smokies is a great way for families to escape the car and enjoy nature



Great Hikes for Families



- 1** Sugarlands Valley Nature Trail (0.5 mile)
- 2** Fighting Creek Nature Trail (1.0 mile)
- 3** Elkmont Nature Trail (0.8 mile)
- 4** Cosby Nature Trail (0.75 mile)
- 5** Cove Hardwood Nature Trail (0.75 mile)
- 6** Spruce-fir Nature Trail (0.5 mile)
- 7** Clingmans Dome Trail (1.0 mile)

With over 800 miles of gorgeous hiking trails to choose from, Great Smoky Mountains National Park is a wonderland for families who want to escape from the car and busy roadways and experience the peace and beauty of the Smokies. Hiking is not only great for your health, it gives families the opportunity for bonding and shared adventures that will be remembered for a lifetime.

Perhaps the best way for families with younger children to hike the Smokies is on one of the park's self-guiding nature trails shown on the map above. Each offers an inexpensive brochure and numbered posts that help you learn about some of the things you see along the way. Many are loop trails. Mileages shown are round trip.

Quiet Walkways are another great way to stretch your legs and enjoy the Smokies backcountry. Look for signs along park roadways to find these short gems. A few are loop trails, but most are not, so you just walk a ways, then return the way you came.

Other Family Favorite day hikes include:

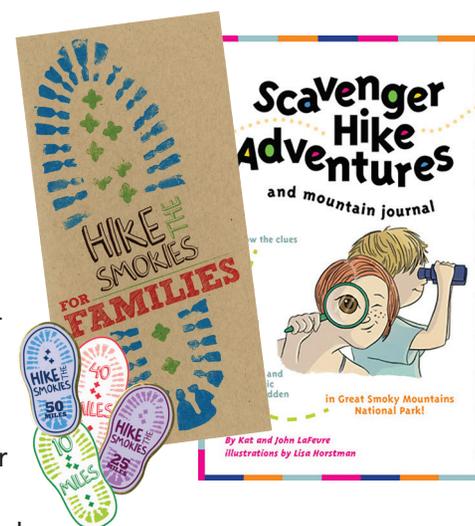
● The Three Waterfalls Loop. Starting at the trailhead past Deep Creek Campground and Picnic areas, this 2.4 mile moderate loop hike includes three impressive waterfalls you can enjoy and photograph.

● Abrams Falls. Beginning from the Cades Cove Loop Road, this 5 mile roundtrip moderate hike climbs up and down over ridges to reach beautiful Abrams Falls.

● Oconaluftee River Trail. This easy, 3-mile roundtrip hike starts at Oconaluftee Visitor Center and follows the river into the town of Cherokee. Exhibit signs along the way tell Cherokee Indian stories.

Day Hiking Tips

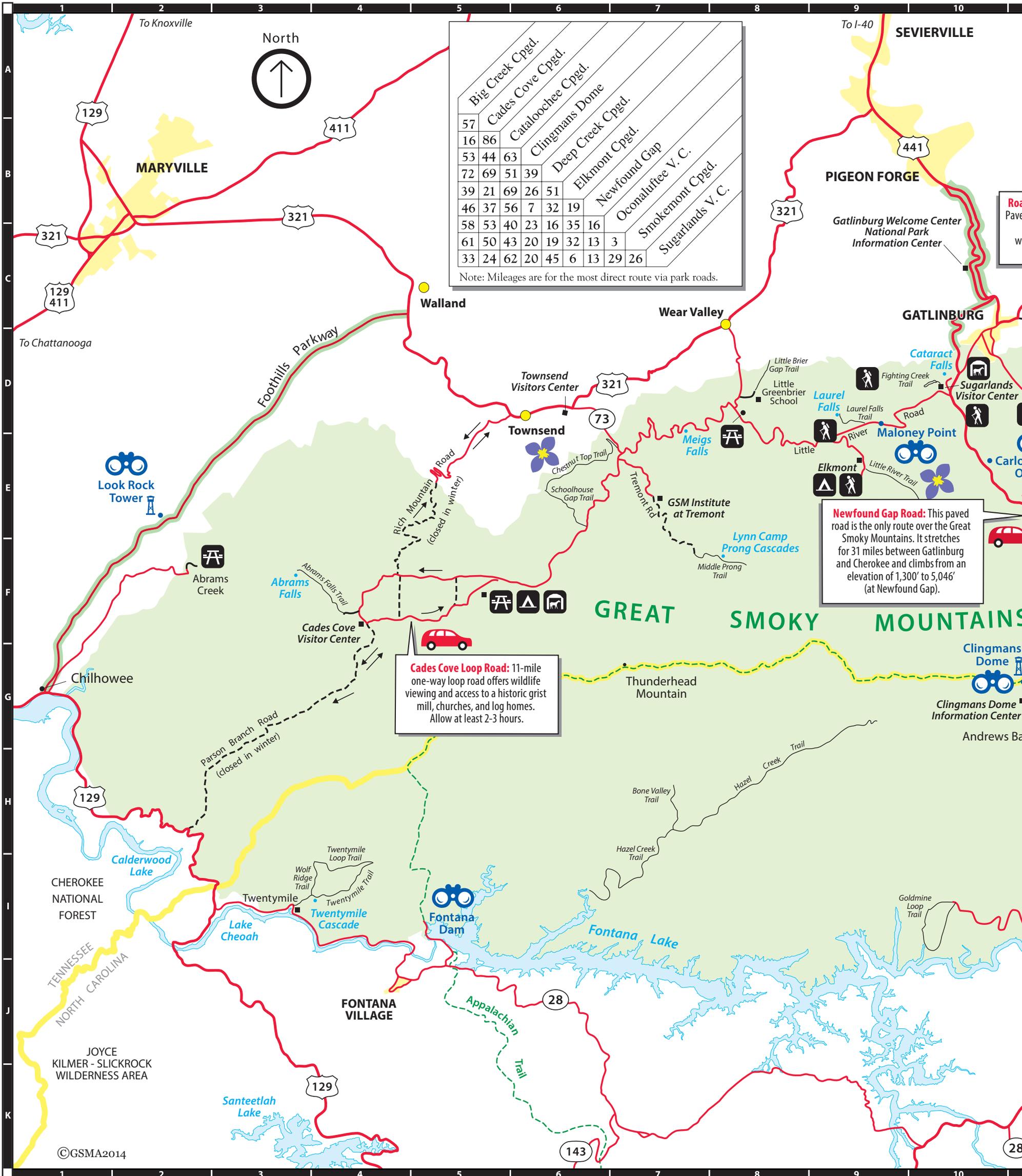
- Take adequate water—minimum 2 quarts per person per day. Never drink out of streams or springs.
- Wear lace up or close-toed shoes or boots. Never wear flip flops or sandals. Footwear that provides good ankle support is best, but sneakers are fine for short hikes.
- Dress in layers that can be easily removed or added as you heat up or cool down. Always carry a wind-resistant jacket and rain gear—even on sunny days!
- What to carry in a day pack? In addition to clothing, rain gear, and water mentioned above: snacks, sunscreen, insect repellent, map, small first aid kit, small flashlight, and camera.
- Check the weather forecast before you go. The Smokies are well known for their sudden, unpredictable, summer rain showers or winter snow.
- Your cell phone will not get reception in most areas of the park. Because of this, do not rely on your phone for directions or to call for assistance.

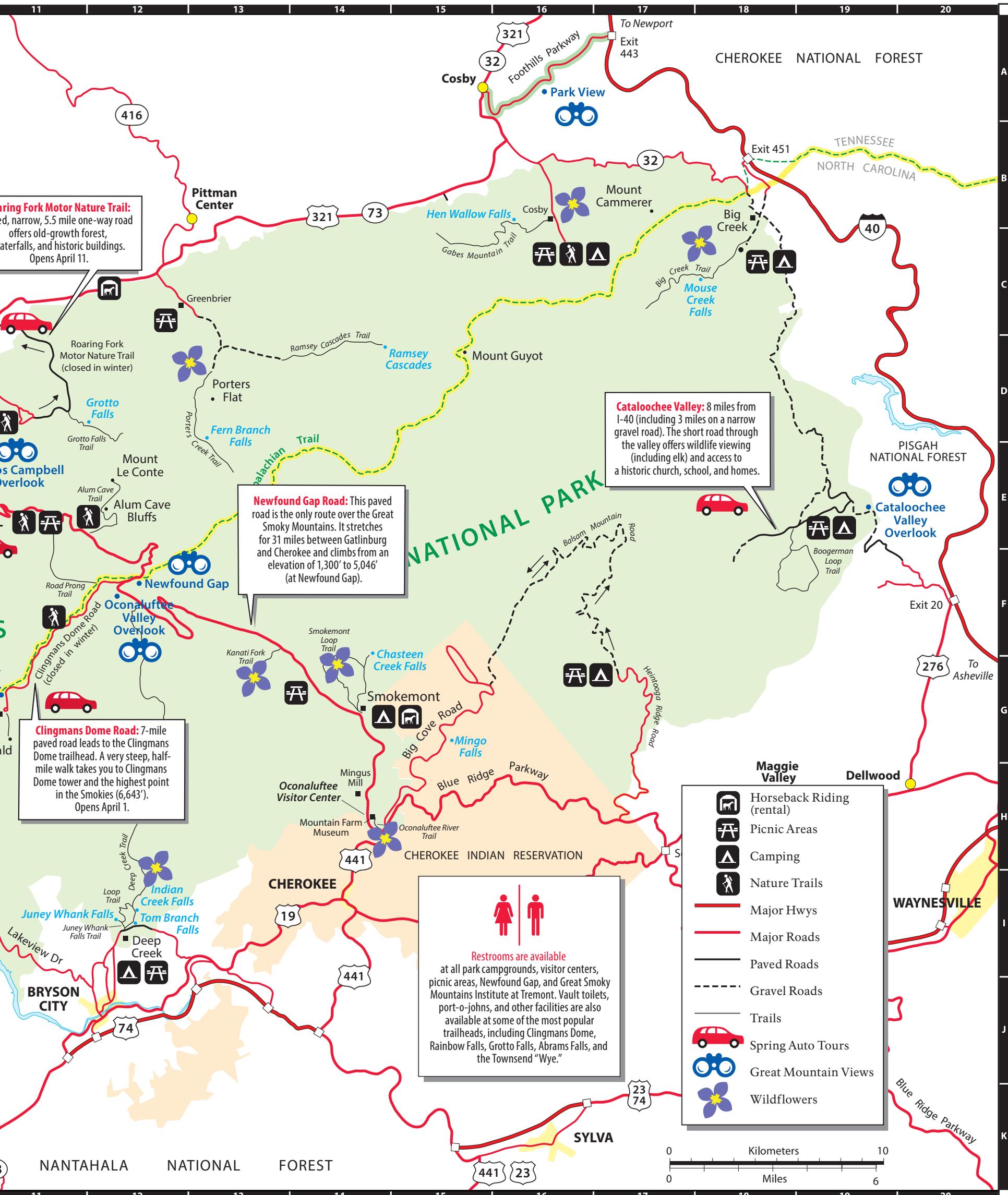


Don't forget to pick up a **Hike the Smokies—FOR FAMILIES** log book to keep track of your hikes and earn cool stickers and pins for the miles you cover. Available for \$1 at park visitor centers.

Scavenger Hike Adventures are 13 hikes especially for families who want to engage their kids in searching for clues and hidden wonders as they walk park trails. Your kids will look for such treasures as a wrecked steam engine, a tree marked by bear claws, remains of an old Model T, and historic log cabins. Available at park visitor centers or by visiting www.SmokiesInformation.org.

GREAT SPRING DRIVING TOURS, VIEWS, AND WILDFLOWER TRAILS IN THE SMOKIES





Roaring Fork Motor Nature Trail: A paved, narrow, 5.5 mile one-way road offers old-growth forest, waterfalls, and historic buildings. Opens April 11.

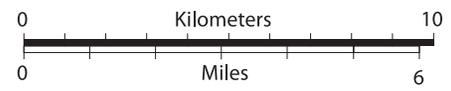
Newfound Gap Road: This paved road is the only route over the Great Smoky Mountains. It stretches for 31 miles between Gatlinburg and Cherokee and climbs from an elevation of 1,300' to 5,046' (at Newfound Gap).

Clingmans Dome Road: 7-mile paved road leads to the Clingmans Dome trailhead. A very steep, half-mile walk takes you to Clingmans Dome tower and the highest point in the Smokies (6,643'). Opens April 1.

Cataloochee Valley: 8 miles from I-40 (including 3 miles on a narrow gravel road). The short road through the valley offers wildlife viewing (including elk) and access to a historic church, school, and homes.

Restrooms are available at all park campgrounds, visitor centers, picnic areas, Newfound Gap, and Great Smoky Mountains Institute at Tremont. Vault toilets, port-o-johns, and other facilities are also available at some of the most popular trailheads, including Clingmans Dome, Rainbow Falls, Grotto Falls, Abrams Falls, and the Townsend "Wye."

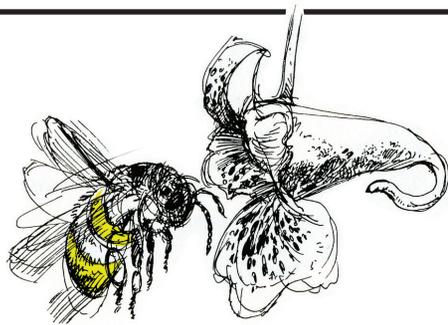
- Horseback Riding (rental)
- Picnic Areas
- Camping
- Nature Trails
- Major Hwys
- Major Roads
- Paved Roads
- Gravel Roads
- Trails
- Spring Auto Tours
- Great Mountain Views
- Wildflowers



of birds, bees, & wildflowers

wildflowers and their pollinators have interesting interactions

Since wildflowers can't walk or fly, they need pollinators like butterflies, bees, and hummingbirds to transfer their pollen to other flowers. This allows the fertilized flower to produce seeds from different parents, enhancing the quality of the offspring.



Pollinators need the flowers for nectar and sometimes pollen, both of which are the sole source of food for many insects, as well as hummingbirds. Over the eons, plants and their pollinators have co-evolved in fascinating ways that usually benefit each other.

Hobblebush

Viburnum lantanoides

or witch hobble has an interesting strategy to attract pollinators. It puts out dense clusters of tiny white flowers that are easy to overlook, but it surrounds the small blooms with much larger flowers. The big flowers are actually sterile, existing only to attract the attention of insects and then persuade them to visit the smaller, viable flowers in the same neighborhood.

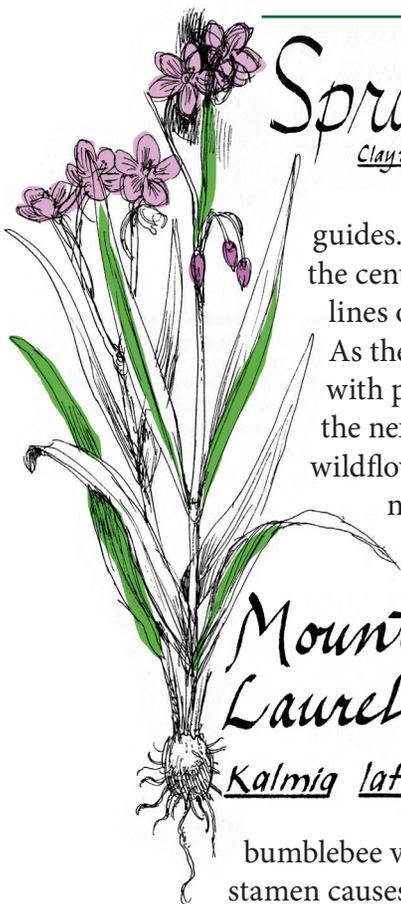


Spring-Beauty

Claytonia caroliniana

flowers have lines on their petals called "nectar guides."

These lines guide flying insects toward the center of the flower in much the same way as lines on runways guide planes to the ground. As the insect consumes the nectar, it is dusted with pollen, which it inadvertently transfers to the next flower. Pollinators of this early spring wildflower include spring azure butterflies and native bumblebees.



Mountain Laurel

Kalmia latifolia

shrubs have a most interesting strategy for pollination. They have arched stamens held under tension by small pockets in the petals. When an insect such as a

bumblebee visits the flower, the slightest nudge of a stamen causes it to spring upright and dust the insect with a shower of pollen.

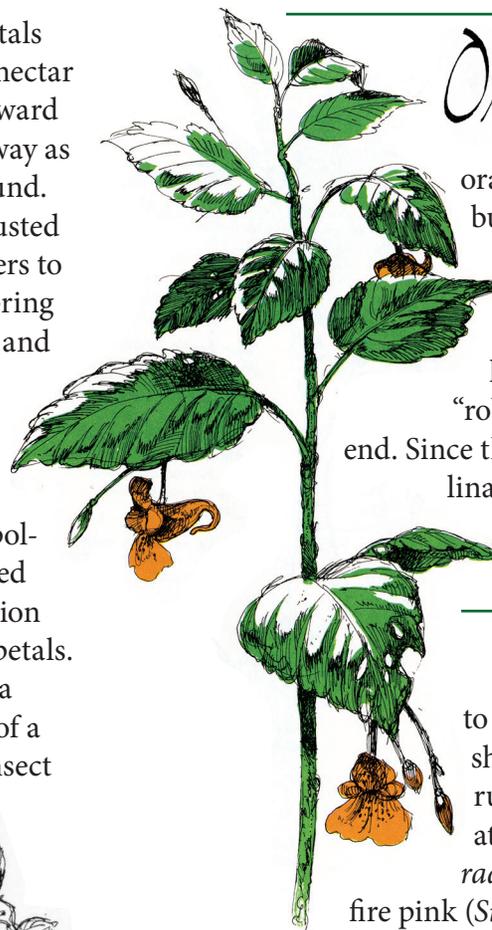


Orange Touch-Me-Not

Impatiens capensis

or

orange jewelweed, is often pollinated by native bumblebees. The bright orange flowers have a wide opening that quickly narrows, forcing the bee to push past the pollen-bearing parts to reach the nectar. Interestingly, some bees have learned to bypass this tight funnel and "rob" the flower of nectar by biting off the back end. Since this robbery foils the flower's strategy for pollination, over eons the flower just might evolve to deter such thievery.



As many people know, flowers that want to attract **hummingbirds** as their pollinators should be bright red. In the Smokies, the native ruby-throated hummingbirds are especially attracted to trumpet creeper vine (*Campsis radicans*), bee-balm (*Monarda didyma*), fire pink (*Silene virginica*), and cardinal flower (*Lobelia cardinalis*). Such plants often keep their nectar deep within the flower so only the long beaks of hummers can reach it. Why do hummingbirds get such preference as pollinators? They travel much farther and faster than insects (many of which are wingless), so they are better at dispersing pollen to distant populations.

art by John Dawson



a honey of a crop

by Rose Houk

Bee keeping was as much a part of farming in the mountains as was raising chickens and growing green beans. The honey their bees produced was valued not only as a delicious food, it was also a source of pride, amazement, and cash.

According to historian and author Wilma Dykeman, during the late 1800s the Cataloochee section of the Smoky Mountains produced some 2,000 pounds of honey per year. With cash or trade from that honey, parents could buy shoes, books, slate tablets, pencils and other supplies their children needed for school. And, into the 20th century, author Horace Kephart reported that the local preacher “had a hundred hives of tame bees, producing 1,500 pounds of honey a year, for which he got ten cents a pound at the railroad.”



Earl Ramsey of Seymour, TN, comes from a long line of beekeepers. His grandfather was Harvey Oakley, whose homeplace was on Twin Creeks. In addition to seven different apple orchards, his grandpa also kept a large number of bees.

Earl's father, James Isaac Ramsey, hunted bee trees and robbed them, and Earl has done the same. He and a friend found more than 50 bee trees in one season, “cut six or eight or ten of them,” and caught the bees in burlap sacks. In catching a swarm, it was critical to get the queen so the hive continued to reproduce.

Finding a bee tree was no small adventure in itself. One method was to stake out a water source, wait for a bee to take a drink, then follow it back to the tree. Another strategy entailed putting out baits of sugar water or corncobs soaked in salt and waiting for wild bees to find it. Those bees could then be tracked to their hive.

Standard mountain hives were nothing more than a hollow log, usually from a blackgum tree, and hence were called “beegums.” Earl Ramsey told how a beegum was made: cut off about a thirty-inch section of the tree, set it over a hot fire to burn out the deadwood, bore holes and insert two crossed sticks, then put a lid on top. The cross sticks were the framework for the honeycomb. The better honey was taken above

the cross sticks, said Earl, and what was below was left so the bees had something to feed on through winter. Small notches were cut into the base of the hive so the bees could come and go.

According to Earl, “a lot of keeping bees is how you handle them.” They don't like sudden moves or noises. When Earl goes in to work his bees, he watches the weather and does not go on a cool morning or during a thunderstorm. The best time to work them is on a clear, sunny day.

The quality and taste of any honey depends entirely on which plants bees forage on. As long as something is blooming and nectar is flowing, worker bees will fly many miles each day to retrieve the sugar-rich fluid they transform into honey. In autumn, Earl's hives worked goldenrod and aster. Earlier in the year, they had gone for clover, which makes a mild, pleasant honey. Dark honey from the flowers of the tuliptree, a common tree in the park, is also a popular honey, as is basswood.



Steve Cole and his multitude of beegums in the Sugarlands area.

Then, there's sourwood honey. From late June through July, bees are abuzz around the blossoms of the sourwoods. This tree's kinship with other heath plants such as dog hobble is apparent in the white, lily-of-the-valley-like blossoms. The higher-elevation sourwoods, those between 2,000 and 3,500 feet, are said to be the best nectar producers.

Clear, golden sourwood honey is considered nectar of the gods in the mountains. Near-perfect sourwood, declared Knoxville writer Carson Brewer, has “the color of champagne” and a “tingly, sweet-tart taste.” Some older folks say the only honey better than sourwood was that produced from the now-vanished American chestnut tree.

RECIPE: Switchell

combine

½ cup sourwood honey
½ cup apple cider vinegar

Add 4 teaspoons of switchell to a cold glass of spring water for a refreshing summer time beverage.

For more recipes and information on historic foods of the Smokies, Rose Houk's book, *Food & Recipes of the Smokies* is available at park bookstores or online at www.SmokiesInformation.org.



things to do

Programs and activities in Great Smoky Mountains National Park

MARCH 30 – MAY 10, 2014

Park visitor centers are located at Cades Cove, Oconaluftee, Clingmans Dome, and Sugarlands. All offer information, exhibits, and publications related to the park and its resources.

♿ Accessible to persons using wheelchairs.

CADES COVE

Because of slow moving traffic, it may take over an hour to drive the six miles from the start of Cades Cove Loop Road to programs at the Cades Cove Visitor Center/Cable Mill Historic Area.

Saturdays

Junior Ranger Program

Meet at the Cades Cove Visitor Center area half way around the Cades Cove Loop Road
1:00 p.m.

Bring the kids for a hands-on exploration of the Smokies. Counts toward the badge and certificate.

Duration: 45 minutes

♿

WILD Program

Meet at the Cades Cove Visitor Center area half way around the Cades Cove Loop Road
2:30 p.m.

A short talk and demonstration about the wild things in the Smokies.

Duration: 30 minutes.

♿

Sundays

Junior Ranger Program

Meet at the Cades Cove Visitor Center area half way around the Cades Cove Loop Road
1:00 p.m.

Bring the kids for a hands-on exploration of the Smokies. Counts toward the badge and certificate.

Duration: 45 minutes to 1 hour

♿

GATLINBURG/ SUGARLANDS AREA

Daily

Cataract Falls Walk

Sugarlands Visitor Center
11:00 a.m.

Do you have a few minutes to learn some fascinating facts about the Smokies? If so, let's get away from the hustle and bustle and take an easy stroll to beautiful Cataract Falls.

CITY OF GATLINBURG PHOTO



Ranger-led programs are free and are a fun way to learn more about the Great Smoky Mountains.

Duration: 1 hour

Difficulty: Easy

Sundays

Bear with Us

Sugarlands Visitor Center Patio

1:30 p.m.

The North American black bear is the symbol of the Smokies. Learn about some of their characteristics and the do's and don'ts of observing these wonderful animals in the wild.

Duration: 30 minutes

♿

Mondays

Take a Walk with a Ranger

Sugarlands Visitor Center

2:00 p.m.

Topics and destinations vary, but you're sure to learn a bit more about the Smokies, from its vast array of wildflowers to some fascinating human history.

Duration: 1 hour

Level: Easy

Tuesdays

Little Greenbrier School (Begins April 15)

Little Greenbrier Schoolhouse near Metcalf Bottoms Picnic area

11:00 a.m. and 2:00 p.m.

Go back a hundred years to discover what education was like in a one-room mountain schoolhouse.

This program is fun for all ages. Please arrive 15 minutes before program starts; space is limited.

Duration: 1 hour

Difficulty: Easy

Wednesdays

Old Times on Fighting Creek

Sugarlands Visitor Center

1:00 p.m.

Take a short walk to the John Ownby Cabin and learn about life in the Fighting Creek community before the park was established.

Duration: 1 hour

Difficulty: Easy

Fridays

Logging in the Smokies

Sugarlands Visitor Center Theater

1:30 p.m.

Discover how "misery whips" and "woodhicks" changed the Smokies' landscape in the early 1900s.

Duration: 45 minutes

Difficulty: Easy

♿

Saturdays

Junior Ranger: Ranger's Choice

Sugarlands Visitor Center

1:00 p.m.

Join a ranger to learn about the wondrous diversity of life in the Smokies. Topics range from salamanders, to bears, to wildflowers.

Special Programs

Music of the Mountains

April 25-27

April 25 at 7:00 p.m. Great Smoky Mountains Heritage Center (Townsend) concert featuring Celtic music with Good Thymes Ceilidh.

April 26 from 10:00 a.m. to 4:00 p.m. Sugarlands Visitor Center theater with traditional mountain music from Boogertown Gap, Lost Mill, Brien Fain, Mountain Strings, and featuring the world famous Roan Mountain Hilltoppers.

April 27 from 2:00 p.m. to 4:00 p.m. Cosby Visitor Center with mountain hymns, folk spirituals, and shaped-note singing.

Cosby in the Park

May 17

Join us as we celebrate the cultural history of this beautiful part of Great Smoky Mountains National Park. The event is free to the public. Crafters, musicians, speakers, and storytellers will provide ample opportunities to learn about mountain culture. There will be children's activities also. The event takes place in and around the Cosby Campground amphitheater. For more information phone the Sugarlands Visitor Center at (865) 436-1291.

Full Moon Walk

Tuesday, April 15, Thursday, May 15 at 8:00 p.m.
Meet at the Orientation Shelter at the entrance to Cades Cove Loop Road

See the Cove in a different light. Wear good walking shoes, bring water and a flashlight. Children under 14 must be accompanied by an adult. Subject to cancellation due to hazardous weather. Call (448) 4104 for more information.

Duration: 2 hours



Blacksmith Demonstration

Saturday & Sunday, May 10 & 11, May 24 & 25
10 a.m. to 4:00 p.m.

Meet at the Cades Cove Visitor Center/Cable Mill, half way around the Cades Cove Loop Road

Learn the art of Blacksmithing and why it was important in the Cades Cove community.



Traditional Old-Time Music

Thursday – Saturday, May 1 – 3

Wednesday – Saturday, May 7 – 10 & May 14 – 17, 21-24, 28-31

Wednesday – Saturday, June 4 - 7

10:30 a.m. to 4:00 p.m.

Meet at Cades Cove Visitor Center/Cable Mill area half way around the Cades Cove Loop Road

Tymes Past presents music gleaned from the immigrant homeland and altered to a unique lifestyle in the Appalachians.



Quilting

Friday, May 23 – Monday, May 26

10:30 a.m. to 4:00 p.m.

Cades Cove Visitor Center, half way round the Cades Cove Loop Road

Demonstrate the techniques of quilting with several finished quilts on display.



Back Porch Old-Time Music

Porch of the Oconaluftee Visitor Center

Saturdays, April 5 & 19, May 3 & 17

1:00 p.m. to 3:00 p.m.

Bring an acoustic instrument and join in on this old-time jam. Or just sit back and enjoy the sights and sounds as others play traditional Appalachian music.



Duration: 1 ½ hours

Difficulty: Easy

**Other non-scheduled programs may be offered; check at the visitor center for daily postings.

OCONALUFTEE/ SMOKEMONT AREA

Daily

Mingus Mill Demonstration

Located a half-mile north of the Oconaluftee Visitor Center on US 441 (Newfound Gap Road)

9:00 a.m. to 5:00 p.m.

(open weekends starting March 21; daily April 11)

Chat with a miller and feel the rumble of this historic gristmill in action.



Mountain Farm Museum

Adjacent to the Oconaluftee Visitor Center

Dawn to Dusk

Walk down to the farm for a glimpse into the past.

Self-guiding brochures are always available and some days you may find demonstrations such as blacksmithing, hearth cooking, or gardening taking place.



Sundays

The "What Is It?" Walk!

Mountain Farm Museum adjacent to the Oconaluftee Visitor Center

2:00 p.m.

We all ask "What is it?"

many times. The mountain farm museum has many items that leave us with more questions than answers.

Join a ranger to learn just what it is! Meet on the porch of the OVC.

Duration: 45 minutes

Difficulty: Easy, half mile walk



Fridays

Newborns of Spring

Porch of the Oconaluftee Visitor Center

2:00 p.m.

The spring season brings new senses, sights and sounds for newborns of all kinds! Join a ranger to re-discover life as a newborn in the Smokies!

Duration: 45 minutes



Kids 5 - 12:

Become a Junior Ranger!



Purchase a booklet at any park visitor center. Earn a free badge.

Saturdays

Busy Beavers

Porch of the Oconaluftee Visitor Center

10:30 a.m.

North America's famous flat-tailed engineer has been hard at work in the Oconaluftee area. Come learn about the beaver and see where they have been working.

Duration: 45 minutes



if you love the smokies...

help protect this place for ourselves and future generations

become a member



Since 1953, Great Smoky Mountains

Association has supported the educational, scientific, and historical efforts of the National Park Service through cash donations and in-kind services. In 2014 alone, the association plans to provide more than \$1 million in assistance that includes saving hemlock trees, living history demonstrations, environmental education programs, salaries for backcountry patrols, and historic preservation.

Association members receive a number of benefits to keep them informed about special events in the park and issues affecting the Smokies:

- Subscription to the semi-annual, full-color magazine *Smokies Life*;
- Coming soon: Exclusive digital access to the award-winning quarterly park newspaper, *Smokies Guide*, and the association's newsletter, *The Bearpaw*
- A 15-25% discount on books, music, gifts, and other products sold at park visitor centers and at our web store
- Discounts up to 20% at more than 400 national park bookstores across the country
- Special discounts at area rental cabins, inns, restaurants, shops, and attractions
- And most importantly, the satisfaction of helping to preserve nature and history in Great Smoky Mountains National Park

Join today using the coupon to the right or visit www.SmokiesInformation.org, or call us at 1-888-898-9102 x222. Memberships start at just \$35.



Great Smoky Mountains National Park is one of the few large national parks without an entrance fee. Most parks now charge \$20 or \$25 per vehicle. Without this supplemental income, it is difficult for the Smokies to adequately protect wildlife, preserve historic areas, and provide educational opportunities. You can help by using some of the money you saved at the entrance to support the park partners on this page.

field school

An exciting variety of adventures await adults who long to get out and explore the park accompanied by expert guides. Programs are offered by the Smoky Mountain Field School and include Mt. Le Conte overnights, wildlife workshops, edible plants, wildflower photography, animal tracking, bird watching, salamanders, mountain cooking, and more. One day programs start at as little as \$35. Contact: (865) 974-0150 or smfs.utk.edu

gsmi at tremont

Great Smoky Mountains Institute at Tremont provides residential environmental education programs in Great Smoky Mountains National Park. Up to 5,000 students and adults annually attend workshops and school programs at the Institute. Tremont's adult workshops include birding, backpacking, environmental education, naturalist weekends, and photography. Contact (865) 448-6709 or www.gsmi.org

summer camps

Great Smoky Mountains Institute at Tremont offers a variety of summer youth camps in the national park. Camps last from 6-11 days and cost from \$539. Fees include meals, lodging, and most equipment.

This year's offerings include: Discovery Camp (ages 9-12), Wilderness Adventure Trek, Girls in Science (ages 12-15), and Teen High Adventure (ages 13-17).

Contact: (865) 448-6709, or www.gsmi.org

GSMA MEMBERS

Stay in Touch with the Smokies All Year Long!

- Individual Annual Membership \$35
- Annual Supporting Membership \$50
**covers 2 persons per household*
- Lifetime Membership \$500
payable in 4 installments
- Annual Business Membership \$250

SIGN ME UP!

Name(s)* _____

Address _____

Email (for Cub Report) _____

Telephone # _____

Please include your check with this form. Mail to:

GSMA, P.O. Box 130, Gatlinburg, TN 37738

support the friends

Friends of Great Smoky Mountains National Park is a nonprofit organization that assists the National Park Service by raising funds and public awareness and providing volunteers for park projects.

Since 1993, Friends has



raised over \$34 million for park projects and programs. These donations help:

- protect elk, bear, brook trout, and other wildlife
- improve trails, campsites, and backcountry shelters
- support educational programs for school children
- improve visitor facilities
- fund special educational services like the park movie
- preserve log cabins and other historic structures

Your donation can help make these projects a reality. Put a few coins or a few dollars in one of the donation boxes located at visitor centers, roadsides, and other locations around the park. Buy the Smokies license plate for your car (available in Tennessee and North Carolina).

However you choose to give, your donation will really help protect the Great Smoky Mountains for many years to come!

Friends of the Smokies
P.O. Box 1660
Kodak, TN 37764
(865) 932-4794
1-800-845-5665
www.friendsofthesmokies.org

CAUTIONARY COMICS

ILLUSTRATIONS BY LISA HORSTMAN

LEAVE BATS BE.



If you see a bat on the ground or in a historic building, please do not touch it. You can get rabies just from skin to skin contact with a bat.

DID YOU KILL THIS ELK?



People who get too close to bear, elk, deer, and other wildlife cause animals to lose their natural fear of humans. When animals lose that fear, they will eventually injure someone and may be relocated or euthanized by park staff. Please enjoy wild animals at a distance. Use binoculars or a telephoto lens.

PLEASE DON'T BRING DOGS ON PARK TRAILS.*

Even the mere scent of a dog on a trail can frighten park wildlife and cause them to change behaviors. Dogs can also transmit diseases to wild animals, and vice versa.



**Dogs on leash are only allowed on Gatlinburg and Oconaluftee River trails.*

visitor information

for more information, www.nps.gov/grsm

information

General park information:

(865) 436-1200

www.nps.gov/grsm

Backcountry information

(865) 436-1297

www.smokiespermits.nps.gov

To order maps & guides

(865) 436-7318 x226

www.smokiesinformation.org

emergencies

Listed below are some numbers to call *for emergencies* that arise after hours.

Park Headquarters

(865) 436-9171

Cherokee Police

(828) 497-4131

Gatlinburg Police

(865) 436-5181

hospitals

Le Conte/Sevier County
(865) 446-7000, Middle Creek Rd., Sevierville, TN.

Blount Memorial (865) 983-7211, U.S. 321, Maryville, TN.

Haywood County (828) 456-7311, Waynesville, NC.

Swain County (828) 488-2155, Bryson City, NC.

regulations

Picking or digging plants is prohibited in the park.

Persons feeding wildlife are subject to a \$5,000 fine.

Pets are not permitted on most park trails. Only the Gatlinburg and Oconaluftee River trails allow dogs on a leash.

accessibility

Restrooms at all park visitor centers (Cades Cove, Clingmans Dome, Oconaluftee, and Sugarlands) are fully accessible. The Sugarlands Valley all-access nature trail is located on Newfound Gap Road just south of Sugarlands Visitor Center.

