



SMOKIES GUIDE

The official newspaper of Great Smoky Mountains National Park • Fall 2021

In this issue

- Smokies Trip Planner • 2**
- Interns in the Smokies • 4**
- National Park News • 5**
- How to Help the Smokies • 6**
- Spooky Mushrooms • 7**
- Autumn Driving Map • 8**
- Jr. Ranger Corner • 10**
- Elkmont's Daisy Town • 11**
- Safety in the Mountains • 12**
- Chubby Cubs of Fall • 13**
- Park Etiquette • 14**
- Visitor Information • 16**



Natriel Miller, Education Technician

The annual show of fall foliage across the Smokies attracts sightseers from all over. Some park destinations like Cades Cove can experience long traffic delays. *Image by Bill Lea.*

You'll Fall for the Colors of the Season

The park's many autumn hues reflect an amazing diversity of trees

About thirteen trillion leaves will fall in the Smokies this year, which means plenty of chances to catch the mountains' famous autumn colors from just about anywhere in the park.

Fall leaf color in the Smokies generally peaks between October 15 and November 10. But according to GSMNP Forester Jesse Webster, the park offers a moving feast for the eyes any time from late September through early November.

"With the range of elevation in the park—from 875 feet near Chilhowee Lake to 6,643 feet at Clingmans Dome—there's always somewhere with great leaf color that time of year," said Webster.

That's because the Smokies are home to more than 100 different species of native

trees, and leaf change generally moves from the park's very highest elevations to the lowest over the course of the season. Sunny days and crisp, cool nights are thought to bring out the very best leaf colors.

"You can catch great colors by car on the overlooks of the Foothills Parkway and by foot on the park's many miles of trails," said Webster, who recommends trying some of the Smokies' quiet walkway trails.

Just be sure to plan ahead. Weekend traffic can be heavy in late October, especially at Clingmans Dome and on Cades Cove Loop and Newfound Gap (US 441) roads. Factor in extra travel time or try venturing to less-frequented areas for some quiet time with the colors of the canopy before they're gone.

Be #SmokiesSafe

- Delay your trip if you are sick
- Wear a mask in all park buildings and at crowded outdoor spaces regardless of vaccination status
- Send only one or two members of your party into visitor centers
- Avoid crowded areas
- Maintain social distancing 6 ft. away from others
- Wash your hands

Visit nps.gov/grsm to plan your trip

OUR PARK
ON SOCIAL MEDIA



GreatSmoky
MountainsNPS



GreatSmokyNPS
and SmokiesRoadsNPS



GreatSmokyNPS

I grew up in a small town in the Piedmont of North Carolina, and I've lived in
Words with a Ranger continued on page 4

COVID-19

The National Park Service is working with federal, state, and local health authorities to closely monitor the COVID-19 pandemic. **Check nps.gov/grsm for the latest updates on open facilities and access.** All openings are based on available staffing. Temporary closures may occur on short notice.

Masks are required for everyone, regardless of location or vaccination status, in all park buildings and at crowded outdoor spaces.

Road closures

- **Cades Cove Loop Road** is closed Sept. 7 through Sept. 27 for paving work.
- **Seasonal closures include:** Forge Creek Road (Oct. 31); Heintooga/Round Bottom and Straight Fork Roads (Nov. 1); Rich Mountain Road (Nov. 8); Clingmans Dome Road, Little Greenbrier Road, Roaring Fork Motor Nature Trail (Nov. 28).



MOVING ROCKS HARMS AQUATIC LIFE.

Camping in the national park

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

Campsite reservations are *required* at all park campgrounds, including Abrams Creek, Balsam Mountain, Big Creek, Cades Cove, Cataloochee, Cosby, Deep Creek, Elkmont, and Smokemont. Sites may be reserved up to six months in advance. Make your reservation at recreation.gov or call 877.444.6777.

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

Campsites for large groups are at Big Creek, Cades Cove, Cataloochee, Cosby, Deep Creek, Elkmont, and Smokemont. Reservations required and may be secured up to a year in advance.

The list below shows number of sites, elevations, closing dates, nightly fees, and maximum RV lengths. For more information, visit nps.gov/grsm.

- **Abrams Creek** 16 sites, elev. 1,125', closes Oct. 31, \$17.50, 12' trailers
- **Balsam Mountain** 42 sites, elev. 5,310', closes Oct. 3, \$17.50, 30' RVs
- **Big Creek** 12 sites, elev. 1,700', closes Oct. 31, \$17.50, tents only
- **Cades Cove** 159 sites, elev. 1,807', open year-round, \$21-\$25, 35'-40' RVs
- **Cataloochee** 27 sites, elev. 2,610', closes Oct. 31, \$25, 31' RVs
- **Cosby** 157 sites, elev. 2,459', \$17.50, closes Oct. 31, 25' RVs
- **Deep Creek** 92 sites, elev. 1,800', closes Oct. 31, \$25, 26' RVs
- **Elkmont** 220 sites, elev. 2,150', closes Nov. 28, \$21-\$27, 32'-35' RVs

- **Smokemont** 142 sites, elev. 2,198', open year-round, \$21-\$25, 35'-40' RVs
- **Look Rock** closed in 2021

Accommodations

- **LeConte Lodge** (accessible by trail only, open through Nov. 28) provides the only lodging in the park. 865.429.5704 or lecontelodge.com
- **Bryson City** 800.867.9246 or greatsmokies.com
- **Cherokee** 800.438.1601 or visitcherokeenc.com
- **Fontana** 800.849.2258 or fontanavillage.com
- **Gatlinburg** 800.588.1817 or gatlinburg.com
- **Maggie Valley** 800.624.4431 or maggievalley.org
- **Pigeon Forge** 800.251.9100 or mypigeonforge.com
- **Sevierville** 888.766.5948 or visitsevierville.com
- **Townsend** 800.525.6834 or smokymountains.org

Firewood

To prevent the spread of destructive pests, the NPS has banned outside firewood from entering the park unless it is USDA- or state-certified heat-treated wood. Campers may gather dead and down wood in the park for campfires.

Visitor centers

Hours may be modified due to COVID. Oconaluftee, Sugarlands, and Cades Cove: 9-5. *Cades Cove closed Sept. 7-27 for paving work.*
Clingmans Dome: 10-6 Sept.-Oct.; 10-5 Nov.
Cable Mill and Mingus Mill operate daily through October 31 and Friday-Sunday in November.

Other services

There are no gas stations, showers, or restaurants in the national park.

Picnic areas

Picnic areas at Cades Cove, Deep Creek, Greenbrier, and Metcalf Bottoms are open year-round. Big Creek, Collins Creek, Cosby, Heintooga, and Look Rock close Oct. 31, and Chimneys closes Nov. 27. Picnic pavilions may be reserved for \$12.50-\$60 at recreation.gov.

For rent

The Appalachian Clubhouse and Spence Cabin at Elkmont can be reserved for daytime events at recreation.gov.

Horseback riding

Some 550 miles of park trails are open to horses. See park trail map for trails and rules. Horse camps are available at Anthony Creek, Big Creek, Cataloochee, Round Bottom, and Tow String. Visit recreation.gov for reservations.

Four concession horseback riding stables offer rides from March through November. Call for exact closing dates.

- **Cades Cove** 865.448.9009 cadescovestables.com
- **Smokemont** 828.497.2373 smokemontridingstable.com
- **Smoky Mtn.** 865.436.5634 smokymountainridingstables.com
- **Sugarlands** 865.436.3535 sugarlandsridingstables.com

Bicycling

Most park roads are too narrow and heavily traveled by automobiles for safe or enjoyable bicycling. Bicycles are permitted on park roads but prohibited on trails except Gatlinburg, Oconaluftee River, and lower Deep Creek and Indian

♻️ Printed on recycled paper

SMOKIES GUIDE

Smokies Guide is produced four times per year by Great Smoky Mountains Association and Great Smoky Mountains National Park.

nps.gov/grsm
SmokiesInformation.org

Publication dates

Spring: mid-March
Summer: early June
Autumn: mid-Sept.
Winter: mid-Dec.

Senior Editor

Frances Figart

Managing Editor

Aaron Searcy

Writers

Korrin Bishop
Martha Hunter
Valerie Polk
Sarah Shiver

Lead Designer

Karen Key

Design Assistants

Emma DuFort
Lisa Horstman

NPS Coordinator

Stephanie Kyriazis

NPS Committee

Christine Hoyer
Becky Nichols

Susan Sachs

Paul Super
Stephanie Sutton
Rhonda Wise

© 2021 GSMA

P.O. Box 130
Gatlinburg, TN
37738

Creek trails. Helmets are required by law for persons age 16 and under and strongly recommended for all.

Bicycles may be rented at the Cades Cove Campground store.

Pets in the park

Pets are allowed in frontcountry campgrounds and along roads as long as they are restrained at all times. Pets are not allowed on park trails, except for Gatlinburg and Oconaluftee River trails. Dogs must be kept in control on a leash no longer than six feet.

Fishing

Fishing is permitted year-round in the park. A Tennessee or North Carolina fishing license is required. Either state license is valid throughout the park. No trout stamp is required. Fishing with bait is prohibited in the park. A special permit is required

for the Qualla Boundary and Gatlinburg. Licenses are available in nearby towns. A free fishing map with a complete list of all park fishing regulations is available at visitor centers.

Special events

Check nps.gov/grsm or inquire at Sugarlands and Oconaluftee visitor centers and Cades Cove Orientation Shelter for information about ranger-led programs and cultural demonstrations.

Backcountry camping

Camping can be an exciting adventure for those who are properly equipped and informed. To facilitate this activity, the NPS maintains more than 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. Get the map.

Go online to view the park's official trail map (nps.gov/grsm/planyourvisit/maps.htm), which shows all park trails, campsites, and shelters. Park rules and regulations are also listed here. You can purchase the printed version of the trail map for \$1 at any park visitor center or by calling 865.436.7318, ext. 226, or by shopping online at SmokiesInformation.org.

2. Plan your trip.

Call or stop by the park's backcountry office from 8 a.m. to 5 p.m. for trip planning help. The office is located in Sugarlands Visitor Center, two miles south of Gatlinburg on US 441. 865.436.1297.

3. Get a permit.

Make your reservation and obtain your permit through the backcountry office

at Sugarlands Visitor Center (by phone or in person) or online at 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.

Fall hikers should be especially aware of abrupt weather changes and the danger of hypothermia—the dangerous lowering of body temperature. The combination of rain, cold, and wind (especially at the higher elevations) is extremely dangerous.

Carry reliable rain gear at all times. Layer clothing that provides warmth when wet (not cotton). Always carry an ample supply of water and food. Know your limits. See page 12 for more trip essentials.

Park weather

In autumn, a pattern of warm, sunny days and crisp, clear nights emerges by mid-September. However, cool, rainy days may also occur. Snow may fall at higher elevations beginning in November. As winter arrives, days can be sunny and 65°F or snowy with highs in the 20s. Snows of an inch or more may occur at lower elevations.

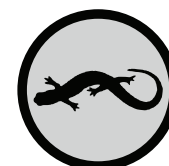
These temperature and precipitation averages are based on data for the last 20 years. Temperatures are in degrees Fahrenheit. An average of over 84" (7 feet) of precipitation falls on the higher elevations of the Smokies.

	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"



GSMNP BY THE NUMBERS

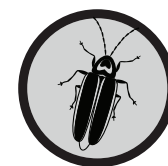
12 million+ visitors
per year



30
species of
salamanders



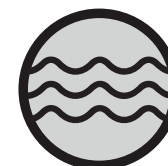
69
species
of mammals



9,800+
species of
insects



250+
species
of birds



2,900+
miles of
streams



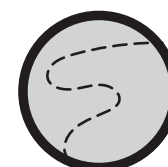
90+
historic
structures



135
species
of trees



500,000+
acres
of land



848
miles of
trails



16
mountains higher
than 6,000'



3,400+
species
of fungi



1,000+
species new to
science found in
the park

Words with a Ranger

continued from page 1

North Carolina my whole life except for a brief internship with the US Forest Service in North Georgia. I moved up to the mountains in 2009 to pursue a psychology degree at the University of North Carolina, Asheville, and following some of those loops and switchbacks in my career path, eventually graduated with a biology degree instead.

It wasn't until I began another internship with the Appalachian Trail Conservancy in 2016 that I obtained a car and discovered that North Carolina was home to Great Smoky Mountains National Park. The only national parks I knew about up to that point were Grand Canyon, Yosemite, and Yellowstone. The latter two I actually thought were the same place, just with two different names.

It's important to me to share my own path to the park because I know there are many people out there who, like me, might not have had an opportunity to learn about or experience the wealth of public lands here in the US. Many more might not know that they could potentially work in them as a ranger—even without a science degree!

As an education ranger, I get to introduce people to the Smokies' cultural and natural resources and share the many ways we are connected to these mountains and why we should take care of them. I love working with everyone but especially young people and those who never knew places like the Smokies existed or could be free to visit and explore. And there are plenty of other places to explore other than the backcountry—places like picnic areas, campgrounds, demonstration mills and farms, indoor exhibits, and ranger-led programs that immerse visitors in the deep history and grand biodiversity unique to the Smokies.

There are many paths that lead to a deeper connection with the outdoors—whether it's through family, friends, clubs, volunteering, or an internship. And it takes staff and service members with all kinds of backgrounds to make Great Smoky Mountains National Park a refuge for wildlife and people too.

Keep reading on this page to meet a few Smokies interns and learn about their work.



Kathryn Maidlow

AmeriCorps Service Member, Interpretation, Sugarlands

As an interpretive AmeriCorps member, I answer questions, connect with the public, and support various educational programs at Sugarlands Visitor Center. By informing others about the park's natural and cultural resources, I help them become better stewards of Great Smoky Mountains National Park.



Katharine Gilbert

Southeast Conservation Corps (SECC) Intern, Fisheries Technician, park-wide

Previously: Forestry Technician (CAC AmeriCorps Member with Vegetation Management)

I survey fish populations in park streams by backpack electrofishing. Previously, as a forestry technician, I treated hemlock trees for hemlock woolly adelgid and removed invasive plants. Other highlights from my service include assisting with two prescribed burns in the park and co-leading an educational program about hemlock woolly adelgid.



Chalice Keith

American Conservation Experience (ACE) Intern, Interpretation, Oconaluftee (2018)

Now: Administrative Support Assistant for Law Enforcement

I served at Oconaluftee Visitor Center as an Interpretation intern in 2018, leading programs for visitors and assisting them at the visitor center. During my internship, I discovered a love of incident management and am now a member of the park's team, serving during special events and large search and rescues.



Will Vest

American Conservation Experience (ACE) Intern, Interpretation, Cades Cove

I spend my time working in the Cove talking to people, managing bear traffic, and giving pop-up programs about anything Smokies-related. I love talking to visitors and spend a lot of time at John Oliver Cabin sharing the interesting history behind it with others. The best way I can describe my service is that I enhance visitor experiences in the park in any way I can.

Live Sorghum Demonstrations Return to Cades Cove

A few beloved historical demonstrations and programs will be returning to Great Smoky Mountains National Park this fall after a year without in-person events due to the COVID-19 pandemic.

Sherry and Mark Guenther, owners of Muddy Pond Sorghum, will be leading sorghum syrup-making demonstrations outside at the Cable Mill area in Cades Cove on most weekends from August 27 through November. No demonstrations will take place in October and while Cades Cove Loop Road is closed for paving work from September 7 to September 27.

Visitors will be able to learn about the process of growing, harvesting, and milling sorghum cane to create the syrup that many mountain farmers once used as a sweetener. After the growing season, sorghum cane was harvested in the fall, stripped of leaves and seed heads, and processed before the first frost, usually by late September or early October.

“The cane mill that we use is over 100 years old,” said Sherry. “Visitors will get to see our mules walk around it, which turns the rollers that squeeze the juice from the cane. When the bucket is full of juice, Mark takes it and boils it down into sorghum syrup.”

After watching the demonstration, visitors can purchase sorghum syrup made by the Guenthers from Cades Cove Visitor Center. The sorghum is also available in other park visitor centers.

“The gleam that we see in visitors’ eyes as they watch the process is what drives us to do these demonstrations year after year,” said Mark.

Demonstrations of cornmeal milling will also be available at the park’s two historic grist mills: Cable Mill in Cades Cove and Mingus Mill near Oconaluftee. Dates of operation may vary at each mill, so check with visitor centers for the most up-to-date demonstration schedules for each location.



A sorghum demonstrator skims boiling cane juice in front of the Becky Cable House in Cades Cove. *Image by Bill Lea.*

Bear Activity Prompts Campsite Closures

Great Smoky Mountains National Park experienced a sharp rise in bear activity this summer, spurring a wave of campsite closures across the park’s backcountry.

“It was just an unprecedented June in particular, and it was what we consider to be elevated bear behavior—bears collapsing tents and getting into backpacks,” said Supervisory Wildlife Biologist Bill Stiver. “Nobody wants to close a campsite, but at the same time, when we see that kind of elevated behavior, we don’t want people staying out there either.”

Typically, peak season for bear conflicts in the Smokies begins in mid-May and ends in late August, when bears begin feasting on nuts and acorns and prepare for winter denning. But according to Stiver, bear conflicts may occasionally continue through September and on into the fall in the off chance that those wild food crops fail.

Plant materials such as berries and nuts make up approximately 85 percent of a black bear’s diet, while animal carrion and insects provide valuable sources of protein. Maintaining a diet of natural food sources is essential to a bear’s health and safety. *Image by Bill Lea.*

“Some years see more conflict than others,” said Stiver. “And this summer, the bears just seemed to be particularly stressed.” Any number of factors may contribute to a rise in bear-related incidents, whether it’s seasonal changes in food availability or increases in visitation to bear country. While pandemic-related closures kept the backcountry quiet for several months in spring and early summer of 2020, this year’s record-setting visitation means there are simply more chances for human–bear interactions. Food stored improperly and food scraps left in fire rings remain the biggest causes of conflict in the park.

Campsites and shelters in the park may be flagged with warnings for higher-than-usual bear activity or closed temporarily for visitor safety. For the full list of campsites and shelters closed or under warning, call the backcountry office at 865.436.1297 or visit [nps.gov/grsm](https://www.nps.gov/grsm).

Visit [bearwise.org](https://www.bearwise.org) when planning your trip to learn about black bears and review safety tips. If you encounter a bear in a picnic area, a campground, or in any other developed area in the park, please call 865.436.1230 or stop at a visitor center to report it.



IF YOU LOVE THE SMOKIES

Join the park's partners in helping to protect this place for ourselves and future generations

Great Smoky Mountains National Park depends on four primary nonprofit partners as well as 2,800 park volunteers to help its staff meet the needs of 12.5 million visitors and manage 522,000 acres of resources.

Great Smoky Mountains Association

Since 1953, the nonprofit Great Smoky Mountains Association has supported the educational, scientific, and historical preservation efforts of the park by operating the park's official bookstores, publishing books and other media about the park's natural and cultural resources, and supporting park programs. Over the years, GSMA has contributed more than \$46 million to assist with living history demonstrations, save hemlock trees, fund natural resource education internships, construct visitor centers and the Collections Preservation Center, and much more.



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 biannual full-color magazine *Smokies Life*
- Digital access to this award-winning park newspaper and Smokies LIVE e-newsletter
- 15–20% discount on books, music, gifts, and products at park visitor centers and at GSMA's web store
- 10% (or more) discount at 500+ additional nonprofit public lands partner stores
- Access to member-exclusive group hikes, backpacking excursions, and educational sessions
- Invitation to GSMA's Members Weekend

Join today by visiting SmokiesInformation.org or call us at 888.898.9102, ext. 257.

Friends of the Smokies

Friends of the Smokies assists the National Park Service in its mission to preserve and protect Great Smoky Mountains National Park by raising funds and public awareness and providing volunteers for needed projects.

Since it was founded in 1993, supporters of Friends have contributed more than \$70 million to meet park needs.

Examples of programs and projects include:

- Rehabilitation of the most impacted trails through Trails Forever
- Forest conservation and wildlife management
- Real-time webcams and air quality monitoring
- Facility improvements and visitor amenities
- Historic structures rehabilitation
- Cultural experiences and special events
- Search and rescue program support and equipment
- K–12 educational programs

Programs like Parks as Classrooms, which serves approximately 20,000 students every year, provide educational experiences that help foster a love for nature and inform the next generation of park supporters. A new digital learning space at Smokieees.org invites students to explore nature-related activities, be entertained through music, art, and stories, and escape through observation of the natural world.

Friends' commitment to preservation includes support for restoring and maintaining historic log homes, barns, outbuildings, churches, schools, and gristmills. Become a Friend by visiting FriendsOfTheSmokies.org. For information about memberships and planned giving, email info@friendsofthesmokies.org or call 800.845.5665.



Discover Life in America

The Smokies have long been renowned for their rich variety of life. Knowing what creatures reside here helps the National Park Service better protect the Smokies against threats like air pollution, wildfire, habitat fragmentation, invasive species, and climate change.



Discover Life in America is a nonprofit partner that was launched in 1998 to manage the All Taxa Biodiversity Inventory (ATBI), an effort to identify and learn about every variety of plant and animal in the park. The organization works with leading biologists from around the globe to conduct this massive inventory.

Volunteers and interns become 'community scientists' who help with DLiA's work. These participants get an insider's look at the park, as well as firsthand knowledge of biology, field science, and laboratory practices. Funding comes from donations by individuals and institutions.

To date, DLiA has helped add more than 10,000 species to the inventory of life in the park, including more than 1,000 species completely new to science! Today there are more than 21,000 different kinds of organisms known to

the park with new discoveries happening every day. You can support DLiA by purchasing the Smokies Species-a-Day perpetual calendar. Learn more at DLiA.org or by calling 865.430.4757.

Tremont

Born out of a need for residential education programs in the park, Great Smoky Mountains Institute at Tremont has offered student and adult programs that promote a connection to nature for more than 50 years. Up to 6,000 students and adults annually attend workshops, camps, and school programs at the institute that are designed to promote curiosity and inspire learning.

Adult workshops include hiking, backpacking, community science, professional and teacher development, photography, and the Southern Appalachian Naturalist Certification program. Summer camps provide youth and their families opportunities to spend six to 11 days exploring the national park and its wonders. Fees include meals, lodging, and most equipment.

Call 865.448.6709 or visit GSMIT.org for program dates and information and to learn how you can support life-changing learning experiences in the Smokies!

GREAT SMOKY MOUNTAINS INSTITUTE AT TREMONT

GSMA MEMBERSHIPS

Get Rooted in the Smokies!

GSMA memberships are available in both individual and family-level packages.

- Acorn (youth) \$15
- Buckeye \$35/\$50 family
- Chestnut \$100/ \$125 family
- Dogwood \$200/ \$300 family
- Hemlock (lifetime) \$1,000/\$1,500 family
- Lookout League Business Memberships \$250–\$1,000

SIGN ME UP!

Name(s) _____

Address _____

Email (for e-newsletter) _____

Phone # _____

Please include your check with this form.

Mail to: GSMA, P.O. Box 130,
Gatlinburg, TN 37738

HELP SPOT THE SPOOKIEST MUSHROOMS IN THE MOUNTAINS

They emerge without a sound—often in the middle of the night. They feed on dead things, and a few can even glow in the dark. Fungi are some of the wildest and most fascinating forms of life in the Smokies.

Whether they take shape in tight rows of turkey tails, soft mounds of puffballs, or delicate reefs of coral, mushrooms are everywhere in Great Smoky Mountains National Park. That's because mushrooms tend to thrive in lush places with plenty of rain and plenty of trees.

Mushrooms are also part of the fundamental engine of life that powers healthy forest ecosystems. Fungi are constantly recycling organic matter and moving nutrients along in complex hair-like networks of mycelia just beneath the surface of the soil.

According to Discover Life in America (DLiA), the organization that coordinates the park's All Taxa Biodiversity Inventory, at least 3,481 species of mushrooms and other fungi can be found in the national park. In fact, researchers in the Smokies have counted over 30 species of fungi on the bark of a single tree. But much still remains to be learned about this often-hidden kingdom of life.

“The park is a really big place, and

it's hard to actually inventory large swathes of it, especially for small and obscure things,” said Will Kuhn, the science director at DLiA.

But that's where you come in. You can help researchers understand more about Smokies fungi by taking pictures of the mushrooms, insects, animals, and plants you see in the park and uploading them using an app called iNaturalist.

“There are 11 million sets of eyes or more every year in the park, and we're just trying to get a fraction of those people to submit observations of the species that they see,” said Kuhn.

If just one in ten park visitors used the app to document what they saw in the Smokies, it would mean more than a million extra community scientists in the park every year contributing invaluable information for conservation efforts.

Look out for these spooky fungi in the park this fall to help collect information about species on DLiA's Smokies Most Wanted list.



No wild mushroom should be eaten unless its identification is absolutely certain, which usually requires an expert to determine. Many mushrooms are poisonous, and the responsibility for eating any mushroom or fungus must rest with the individual.

3 SPOOKY FUNGI

Snap a photo and upload it using the iNaturalist app to help document the amazing biodiversity of the Smokies!

Dead man's fingers *Xylaria polymorpha*
Dead man's fingers usually grow from the bases of rotting or injured tree stumps in woodland areas. Polymorpha means “many forms,” a reference to the various shapes the fruiting bodies can take, often resembling “fingers” emerging from the earth.
Pictured left by Lisa Horstman.

Witch's butter
Tremella mesenterica



Witch's butter is a common jelly fungus found on dead and recently fallen branches during rainy weather. Look for globs of orange-yellow ‘butter’ that look like they've been dropped from a passing broomstick. *Image courtesy of iNaturalist user adventurelisa.*

Dog vomit slime mold *Fuligo septica*



Dog vomit slime mold is commonly found on the forest floor and on deciduous logs. Slime molds are actually not fungi at all but groups of single-celled organisms that function together as a whole. Scientists are interested in some slime molds' mysterious ability to reunite when divided and even ‘learn’ or predict periodic unfavorable conditions. *Image by Will Kuhn.*

Driving distances and estimated times

All driving times may vary due to traffic conditions.

Cherokee, NC to:

- Gatlinburg: 34 miles (1 hour)
- Cades Cove: 58 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)


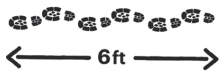





Gatlinburg, TN to:

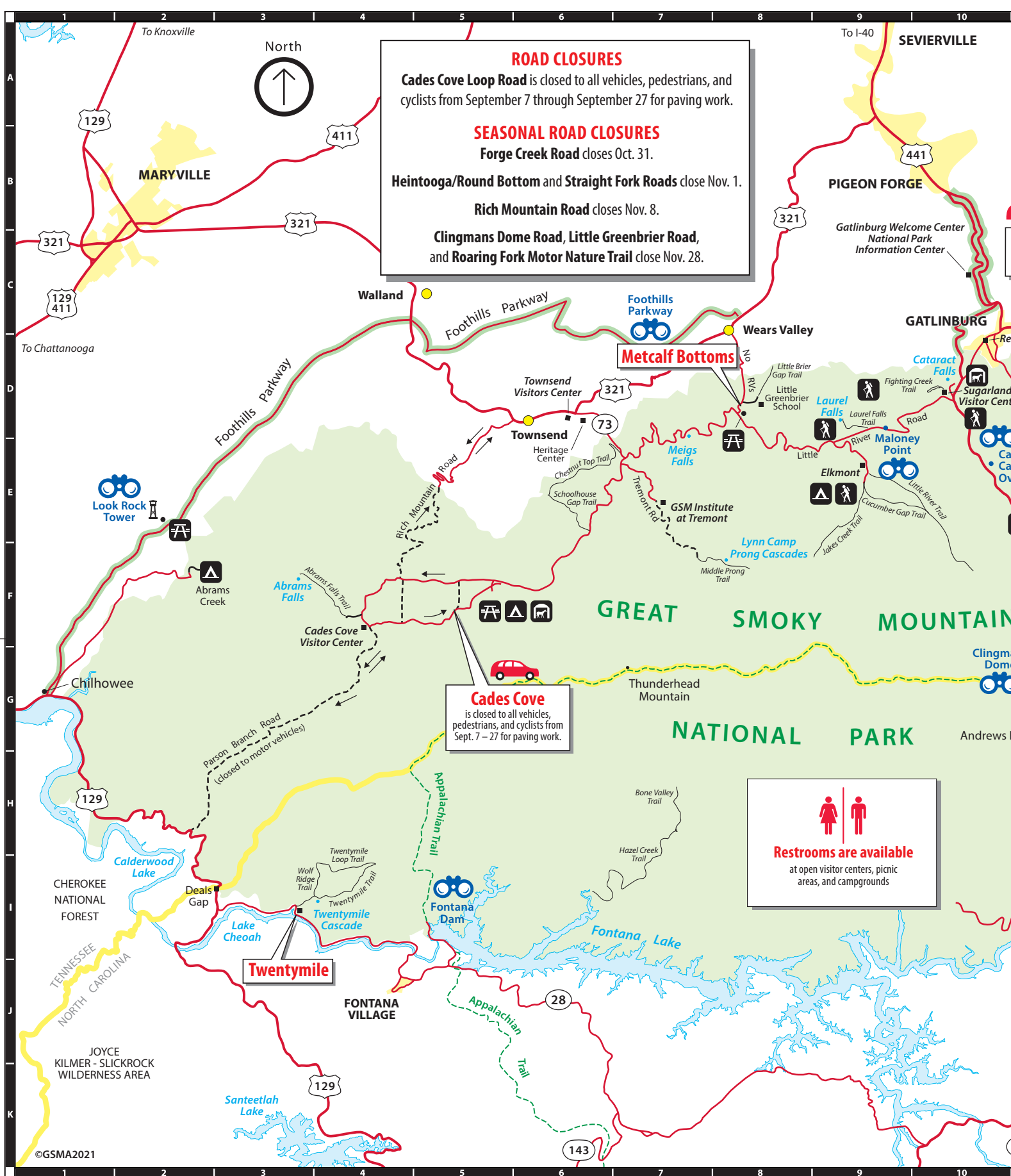
- Cherokee: 34 miles (1 hour)
- Cades Cove: 27 miles (1 hour)
- Newfound Gap: 16 miles (½ hour)
- Clingmans Dome: 23 miles (¾ hour)
- Cataloochee: 65 miles (2½ hours)
- Greenbrier Cove: 6 miles (¼ hour)
- Deep Creek: 48 miles (1½ hours)

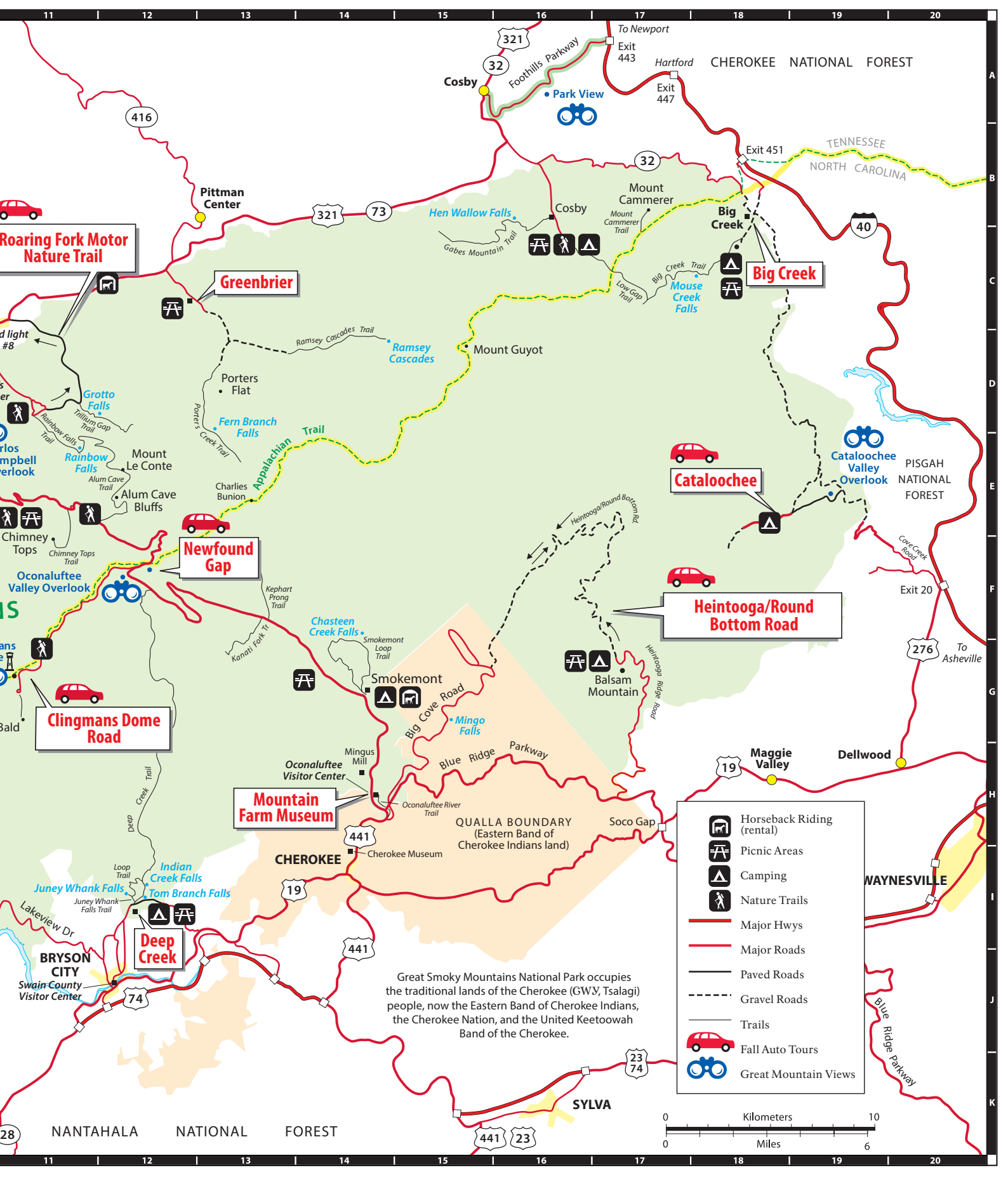
Townsend, TN to:

- 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 (3 hours)

#RecreateResponsibly

<p>KNOW BEFORE YOU GO</p> 	<p>PRACTICE PHYSICAL DISTANCING</p> 
<p>PLAN AHEAD</p> 	<p>PLAY IT SAFE</p> 
<p>EXPLORE LOCALLY</p> 	<p>LEAVE NO TRACE</p> 
<p>BUILD AN INCLUSIVE OUTDOORS</p> 	<p>Graphic courtesy of recreateresponsibly.org</p>





Roaring Fork Motor Nature Trail

Greenbrier

Big Creek

Newfound Gap

Cataloochee

Heintooga/Round Bottom Road

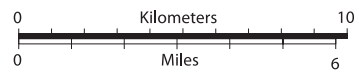
Clingmans Dome Road

Mountain Farm Museum

Deep Creek

Great Smoky Mountains National Park occupies the traditional lands of the Cherokee (Gwiy, Tsalagi) people, now the Eastern Band of Cherokee Indians, the Cherokee Nation, and the United Keetoowah Band of the Cherokee.

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





FIND IT!

Test your detective skills! Can you find the eight objects hidden in this Smokies scene?

- ___ mushrooms
- ___ a wildflower
- ___ a bear cub
- ___ a Luna moth
- ___ a fish
- ___ ferns
- ___ acorns
- ___ a mudpuppy



For more fun stuff about Great Smoky Mountains National Park, pick up a copy of *10 Things I Like About You* coloring book at any of the visitor centers in the park.

Travel Through Time in Elkmont's Daisy Town

Renovated cabins and interpretive volunteer crew offer glimpse of early tourism in the park

Visitors who stop by the Elkmont area of the park may notice some fresh renovations to a row of houses historically known as Daisy Town. The park service is working to preserve the 18 oldest structures built between 1914 and 1917 on the site where nearly 60 summer vacation homes once dotted the landscape. About half of the oldest houses are completely renovated, and staff hope to have the rest finished in the next several years.

The original homeowners were wealthy Knoxville residents and members of the Appalachian Club who bought the land from Little River Lumber Company. The owners were also early supporters of Great Smoky Mountains National Park.

“Every one of them gave money to buy the land to create the park,” said Brad Free, Elkmont historian and GSMNP interpretive ranger. “Their interest in nature was the motivation.”

When the park was established in 1934, many families retained their cabins under lifetime leases, the last of which expired in 2001.

The Daisy Town renovations honor the tourism history of the Smokies. Park visitors can now walk through the finished homes and see glimpses into the lives of the families who vacationed there each summer. To share more about the homes and the area's history, volunteer interpreters are available in Elkmont to speak with visitors from 9 a.m. to 4 p.m. daily. Visitors can also look forward to a digital tour of Daisy Town, which is currently being developed within the National Park Service app.

Some people might be tempted to call Elkmont a ‘ghost town,’ but Free doesn't see it that way. Renovations and volunteer programs are just a couple ways the park keeps these stories going.

“It's something that's very much alive in the hearts of the people who had families there,” said Free. “And even for us as interpreters, it's in our hearts and passions to preserve that past.”

This picture was taken in 1914 at the Appalachian Club's “pool” on the Little River. The swimming hole was a favorite spot for families who spent summers vacationing in Daisy Town. Photo courtesy of GSMNP archives.



Before and after: The Higdon Cabin in March 2017, prior to restoration, and in April 2021, with restoration complete.

The historic preservation crew, a small group of uniquely talented professionals, uses traditional techniques and materials to rehabilitate deteriorating buildings. The park maintains more than 100 historic buildings in total, each conveying their own story.

Photos by Jim Matheny and Emma DuFort





Setting Out for the Mountains...Safely

It is your responsibility to be safe and to know and obey park guidance. You can find information and rules at visitor centers, trailhead bulletin boards, and the park website at [nps.gov/grsm](https://www.nps.gov/grsm).

BASIC PACK LIST

- **Water**, a water filter, tablets, or the ability to boil water
- **Food** including plenty of snacks
- **Extra layers** (base layer, jacket, socks) for changing conditions
- **Sun protection** with sunscreen, sunglasses, and/or a hat
- **Rain gear** and pack cover to keep what you are carrying dry (zippered plastic bags inside your pack can do this too)
- **Traction support** like hiking poles or microspikes
- **Navigation**—Map and compass and the knowledge of how to use them
- **Shelter** in the form of a tent or tarp
- **Flashlight** or headlamp and batteries
- **Fire starter** with a lighter, strike stick, and something to light
- **Knife** or multi-tool
- **Emergency whistle**
- **First aid kit** with all the essentials to care for common accidents
- **Permit** for camping overnight



IN AN EMERGENCY:

- Never hike alone or split up from your party. Remain on established trails.
- If you can acquire a signal, call emergency dispatch (865.436.9171) or dial 911.
- Remain with any injured party until help arrives.
- Use what basic first-aid techniques you know, but do not attempt invasive intervention unless you are medically trained.
- Issue a series of three spaced blasts on an emergency whistle every few minutes to alert the rescue crew of your location.
- If you are in an open area visible from the air, display brightly colored clothing or gear.

Plan ahead: Inform the NPS back-country office of your itinerary before you hit the trail so the emergency response crews will know where to begin looking. Let the NPS help you plan a hike and prepare for what you may experience along the way (865.436.1297, 8 a.m. – 5 p.m.).

Welcome to the Chubby Cub Club

Help protect the park's most famous fauna

For approximately 1,900 black bears that call the Smokies home, fall is the season for packing on the pounds. Every autumn, black bears forage on a menu of seasonally available foods, rapidly regaining the important fat reserves they will need to survive hibernating over another long winter in the mountains.

In the spring, a black bear's diet consists of grasses, buds, seeds, insects, and occasionally carrion. When summer arrives, bears move on to "soft mast" foods like blackberries, huckleberries, blueberries, and black cherries. But according to Supervisory Wildlife Biologist Bill Stiver, it's not until fall arrives that they begin to put on serious weight.

"Even though they've been eating berries and insects and grasses, black bears are actually at their lowest weight by the end of the summer, and they can look pretty scrawny," said Stiver. "But once acorns become available, they can essentially double their weight."

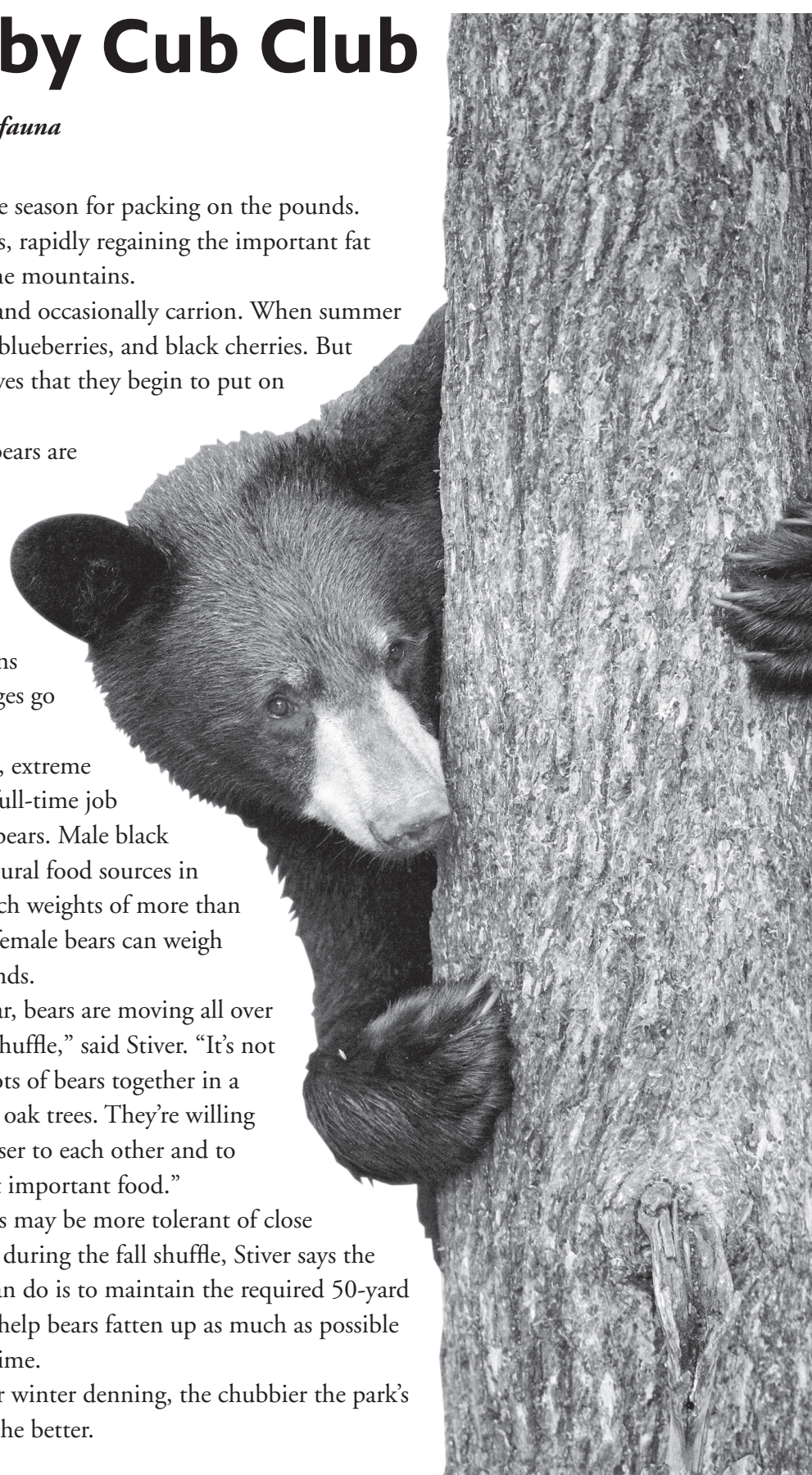
As autumn arrives, black bears transition from feeding on the soft mast foods of summer to wild grapes and the all-important "hard mast" foods of fall. Bears begin snuffing up pounds and pounds of nuts and acorns as they enter a period of "hyperphagia"—a state when thirst and hunger urges go into overdrive.

During this time, extreme feasting becomes a full-time job for the park's black bears. Male black bears feeding on natural food sources in the Smokies can reach weights of more than 400 pounds, while female bears can weigh more than 200 pounds.

"This time of year, bears are moving all over the park in the fall shuffle," said Stiver. "It's not uncommon to see lots of bears together in a good stand of white oak trees. They're willing to tolerate being closer to each other and to people to get to that important food."

While some bears may be more tolerant of close proximity to people during the fall shuffle, Stiver says the best thing visitors can do is to maintain the required 50-yard viewing distance to help bears fatten up as much as possible during this critical time.

Once it's time for winter denning, the chubbier the park's black bears can be, the better.



RULE OF THUMB FOR WILDLIFE VIEWING



When viewing wildlife, hold your arm out straight and, if you can't cover the animal in your line of sight with your thumb, you're too close!

Buy It (Or Collect It) Where You Burn It

Follow firewood rules for tasty s'mores and healthy forests

PARK

Etiquette

Few things are sweeter than a cool autumn evening spent around a crackling campfire with good company. But did you know that firewood sourced from outside Great Smoky Mountains National Park may be hosting hidden company of its own in the form of dangerous invasive pests?

Smokies Forester Jesse Webster wants to remind visitors that the park's firewood regulations exist to strike a balance between the perfect s'more and a healthy forest.

"The park contains some of the largest remaining uncut sections of forest in the eastern United States," said Webster. "Some of these old-growth trees are over 500 years old, and the tallest native hardwood tree in North America is found in the Smokies. These forests play an important part in keeping the air and water clean for surrounding communities, and wildlife, like our lovable bears, healthy."

Non-native insects and diseases that hitch a ride into the park via firewood threaten these forests. Some of these pests and diseases include emerald ash borer, which kills ash trees, laurel wilt, which kills sassafras trees, and thousand cankers disease, which kills walnut trees.

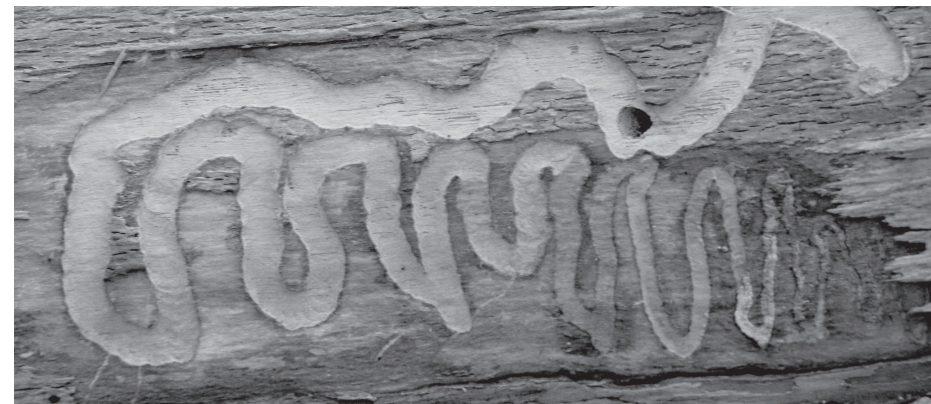
"Since these pests didn't evolve here over time, there are no natural established controls for them," said Webster. "Therefore, they can reach exponential numbers the trees are unable to tolerate."

Webster works with a team that has been in a long battle to protect the Smokies' trees. They treat approximately 300,000 eastern hemlocks by spraying and injecting them with insecticides and using predator beetles. They also treat 700 green and white ash trees.

However, there's a cheaper and less time-intensive way visitors can help, too—and it starts with your campfire.

While wood you purchase or find outside the park may look healthy, there's a chance it contains tiny insect eggs or microscopic fungal spores that can lead to new infestations.

"We are constantly concerned with new introductions that could arrive from firewood movement," said Webster. "Just last year, Asian longhorned beetle was detected near Charleston, South Carolina. If this pest made it to the Smokies, it could be devastating to multiple native



Top: The emerald ash borer, a beetle native to northeast Asia, has had devastating impacts on green and white ash trees in the park. *Photo by Bill Keim.* **Above:** Emerald ash borer larvae feed on the tree in a serpentine pattern, disrupting the tree's ability to transfer nutrients to its leaves. *Photo by Mark Apgar.*

tree species in the park. The firewood policy helps reduce the threat of these new forest insects and diseases."

The safest—and required—options for firewood in the Smokies are:

1. Downed, dead wood found within the park
 2. Certified heat-treated wood
- Using wood found within the park ensures you're not introducing diseases

The safest—and required—options for firewood in the Smokies are:

- 1. Downed, dead wood found within the park**
- 2. Certified heat-treated wood**

Only use firewood certified with a heat-treated compliance stamp



North Carolina Department of Agriculture and Consumer Services – Plant Industry Division
(919)707-3730 • www.ncagr.gov/plantindustry

This firewood has been certified heat-treated to a core temperature of 71.1°C (160°F) for 75 minutes.

Business Name
Business Address
Certification No. FIPS-###-YEAR

“Just last year, Asian longhorned beetle was detected near Charleston, South Carolina. If this pest made it to the Smokies, it could be devastating to multiple native tree species in the park.”

~Jesse Webster

Forester, Great Smoky Mountains National Park

that aren't already here. However, it must be sourced from already-fallen trees. It is not permissible to cut live trees or branches.

Heat-treated firewood that is bundled and certified by the USDA or a state agency is the only wood visitors may bring into the park. This is an affordable, high-quality wood that lights easily, burns well, and is safe for toasting marshmallows and other camp favorites. Heat treatment kills any pathogens living in the wood, so you don't have to worry about uninvited guests at your family campout.

You can find certified heat-treated wood from businesses around the park and from concessioners at Cades Cove, Smokemont, and Elkmont during their operating seasons.

“Most people don't want to see their favorite campground with dead and dying trees,” Webster said. By following the park's simple firewood regulations, we can all play a part in keeping our campsites beautiful and our tree shade plentiful for many more campfires to come.

Please leave your firewood at home.

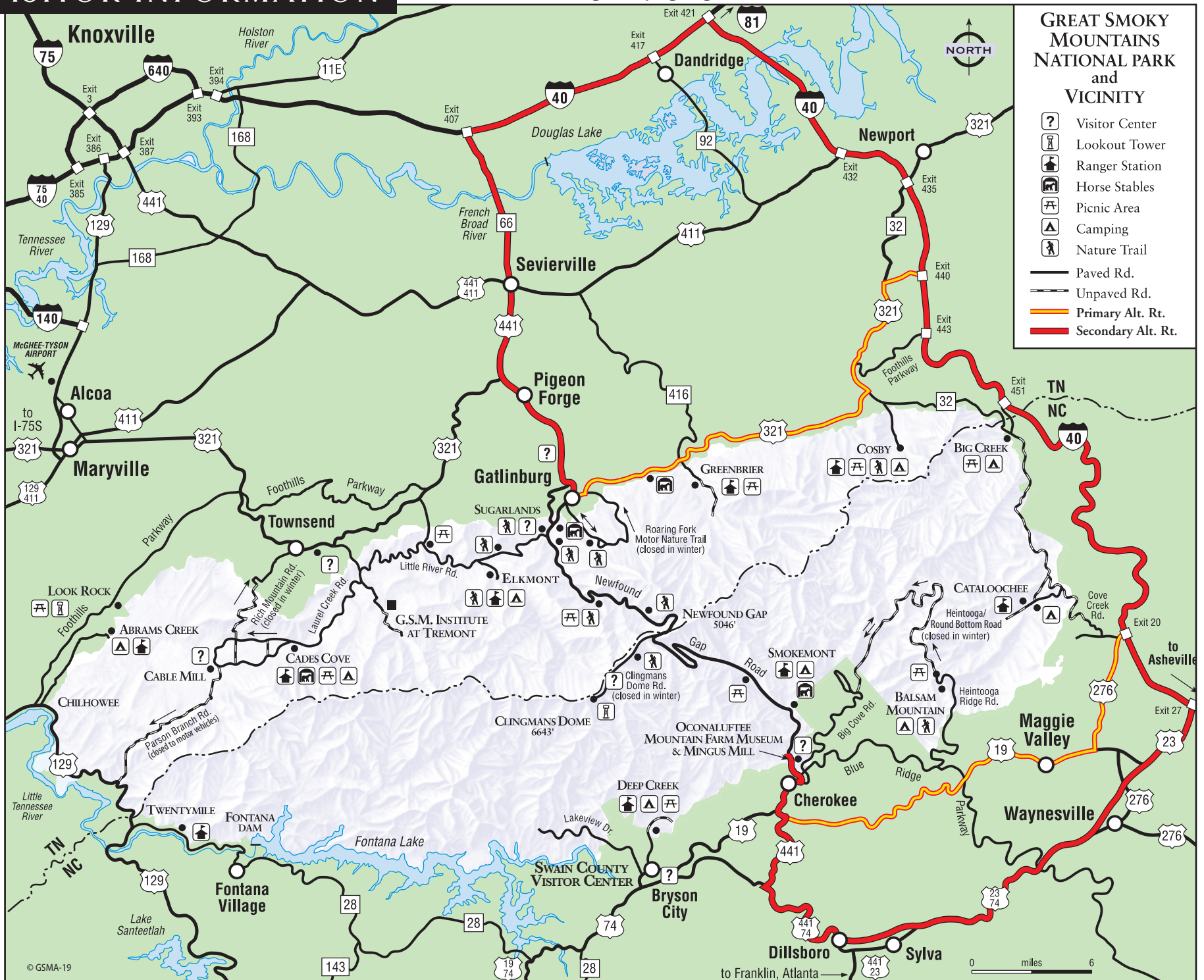


Use only heat-treated firewood or dead and down wood within the park.

Harmful pests can hitchhike into the park on your firewood, which could kill millions of trees.

VISITOR INFORMATION

For more information, go to nps.gov/grsm



Information

General park info:
865.436.1200 • nps.gov/grsm
Backcountry information:
865.436.1297
smokiespermits.nps.gov
To order maps and guides:
865.436.7318, ext. 226
SmokiesInformation.org

Emergencies

For emergencies 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
US 321, Maryville, TN

Haywood County

828.456.7311
Waynesville, NC
Swain County
828.488.2155
Bryson City, NC

All-access

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

Avoid the fine

Picking or digging plants is prohibited in the park. Persons feeding wildlife are subject to a \$5,000 fine. Pets are only permitted on the Gatlinburg and Oconaluftee River trails, which allow dogs on a leash.