



# SMOKIES GUIDE

The official newspaper of Great Smoky Mountains National Park • Winter 2017-18

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Horses graze in the open frosty fields in Cades Cove. Image by Bill Lea



## Winter Driving in the Mountains

*Use caution when driving park roads in winter as temperatures and conditions can change rapidly*

The 33-mile-long Newfound Gap Road (U.S. 441) is the main automobile route through Great Smoky Mountains National Park. It crosses the crest of the Smoky Mountains at Newfound Gap (elevation 5,046') to connect the towns of Gatlinburg, TN, and Cherokee, NC. Driving time is typically one hour.

At Newfound Gap, where the road reaches its highest point, temperatures are frequently 10-15° F cooler than in Cherokee or Gatlinburg. In addition, the higher elevations receive considerably more precipitation than the surrounding valleys. Annually, Newfound Gap records more than five feet of snow.

This combination of low temperatures and high precipitation results in

periods of hazardous driving conditions. For the safety of motorists, the Park Service imposes certain restrictions on winter driving. Typically, Newfound Gap Road is temporarily closed 15-20 times each winter. For alternate routes when Newfound Gap Road is closed, see the back page of this newspaper.

Even though driving conditions may seem fine near Gatlinburg or Cherokee, Newfound Gap Road contains very steep grades, sharp curves, and is often coated with snow and ice in winter. Salt is not used to treat roads in the park because it damages the plants and streams that the park was created to protect.

When driving on snow-covered roads, reduce your speed and avoid sudden braking. Leave extra space between you and the vehicle in front of you. Use lower gears or brake very

*When driving on snow-covered roads, reduce your speed and avoid sudden braking. Leave extra space between you and the vehicle in front of you.*

gently when you need to slow down.

For current conditions check Twitter at [twitter.com/smokiesroadsnps](https://twitter.com/smokiesroadsnps) or call 865.436.1200. For information on seasonal road closures, visit [nps.gov/grsm/](https://nps.gov/grsm/).

### Look closely...

Winter is the time when deciduous trees have dropped their leaves and many things in the park suddenly become visible. Watch for wildlife, including white-tailed deer, elk, coyote, bobcat, red and gray fox, and Wild Turkey. (Sorry, most black bears will be in their dens from early December into March.) You're also more likely to spot traces of history: old roads, chimneys, cemeteries, home sites and stone walls. Image of Katie Corrigan by NPS

## 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.

Campsites at Elkmont, Smokemont, Cataloochee, Cosby and Cades Cove may be reserved. For reservations call 877.444.6777 or contact [recreation.gov](http://recreation.gov). Sites may be reserved up to six months in advance. Reservations are required at Cataloochee Campground.

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 877.444.6777 or contact [recreation.gov](http://recreation.gov). Group sites may be reserved up to one year in advance.

The list below shows number of campground sites, elevations and maximum RV lengths. For current camping fees and dates of operation, visit [nps.gov/grsm](http://nps.gov/grsm).

- **Abrams Creek** 16 sites, elev. 1,125', 12' trailers
- **Balsam Mountain** 42 sites, elev. 5,310', 30' RVs
- **Big Creek** 12 sites, elev. 1,700', tents only
- **Cades Cove** 159 sites, elev. 1,807', open year-round, 35'-40' RVs
- **Cataloochee** 27 sites, elev. 2,610', 31' RVs. Reservations are required.
- **Cosby** 157 sites, elev. 2,459', 25' RVs

- **Deep Creek** 92 sites, elev. 1,800', 26' RVs
- **Elkmont** 220 sites, elev. 2,150', 32'-35' RVs
- **Look Rock** Closed
- **Smokemont** 142 sites, elev. 2,198', \$17-\$20, open year-round, 35'-40' RVs.

To prevent the spread of destructive insect 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. Certified wood may be purchased in and around the park.

## 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 wildlife viewing and touring historic homesites.

Helmets are required by law for persons age 16 and under. However, helmets are strongly recommended for all bicyclists.

Bicycles are permitted on park roads but prohibited on trails except Gatlinburg, Oconaluftee River and lower Deep Creek/Indian Creek.

Mountain biking is popular in public lands outside the park, including Cherokee, Nantahala and Pisgah national forests.

## Accommodations

- **Le Conte Lodge** (accessible by trail only) provides the only lodging in the park. 865.429.5704 or [lecontelodge.com](http://lecontelodge.com)

For information on lodging outside the park:

- **Bryson City** 800.867.9246 or [greatsmokies.com](http://greatsmokies.com)
- **Cherokee** 828.788.0034 or [cherokeesmokies.com](http://cherokeesmokies.com)
- **Fontana** 800.849.2258 or [fontanavillage.com](http://fontanavillage.com)
- **Gatlinburg** 800.588.1817 or [gatlinburg.com](http://gatlinburg.com)
- **Maggie Valley** 800.624.4431 or [maggievalley.org](http://maggievalley.org)
- **Pigeon Forge** 800.251.9100 or [mypigeonforge.com](http://mypigeonforge.com)
- **Sevierville** 888.766.5948 or [visitsevierville.com](http://visitsevierville.com)
- **Townsend** 800.525.6834 or [smokymountains.org](http://smokymountains.org)

## Pets in the park

Pets are allowed in front-country 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, or in fields or meadows. Dogs must be leashed on these trails.

## Special events

**December 9, 2017**

Festival of Christmas Past: Sugarlands Visitor Center

**December 16, 2017**

Holiday Homecoming at Oconaluftee Visitor Center

**April 24-28, 2018**

Spring Wildflower Pilgrimage: parkwide

**May 9, 2018**

Start of bicycle mornings in Cades Cove

## For rent

The Appalachian Clubhouse and Spence Cabin at Elkmont can be rented for daytime events starting in April. Contact [recreation.gov](http://recreation.gov).



Image by Gary Wilson

## SMOKIES GUIDE

Smokies Guide is produced five 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  
 LATE SUMMER:  
 mid-August  
 AUTUMN: Sept. 15  
 WINTER: Dec. 1

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### Visitor centers

Winter hours of operation are, Cades Cove: 9-4:30 in Dec. and Jan; 9-5:30 in Feb.; 9-6:30 in March. Oconaluftee: 8-4:30 in Dec.-Feb.; 8-5 in March. Sugarlands: 8-4:30 in Dec.-Feb.; 8-5 in March.

### Park weather

• **Spring** March has the most changeable weather; snow can fall on any day, especially at the higher elevations. Backpackers are often caught off guard when a sunny day in the 70s F. is followed by a wet, bitterly cold one. By mid- to late April, the weather is milder.

- **Summer** By mid-June, heat, haze and humidity are the norm. Most precipitation occurs as afternoon thundershowers.
- **Autumn** In mid-September, a pattern of warm, sunny days and crisp, clear nights often begins. However, cool, rainy days also occur. Snow may fall at the higher elevations in November.
- **Winter** Days during this fickle season can be sunny and 65°F or snowy with highs in the 20s. At the low elevations,

snows of 1" or more occur 3-5 times per year. At Newfound Gap, 69" fall on average. Lows of -20°F are possible at the higher elevations.

### Camping in the backcountry

Winter camping can be an exciting adventure for persons properly equipped and informed. To facilitate this activity, the National Park Service 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. Go online to view the park's official trail map ([nps.gov/grsm/planyourvisit/maps.htm](http://nps.gov/grsm/planyourvisit/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 [SmokiesInformation.org](http://SmokiesInformation.org).

2. Call or stop by the park's backcountry office, which is open daily 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 U.S. 441. 865 436.1297.

3. 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](http://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.

Winter 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 reliable rain gear at all times. Layer clothing that provides warmth when wet (not cotton). Be prepared for

sudden weather changes, especially at the higher elevations. Stay dry.

### 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. Fishing with bait is prohibited in the park. A special permit is required for the Cherokee Reservation 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.

### Driving distances and 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)

Pets are allowed on Gatlinburg and Oconaluftee River Trails. All dogs must be on leashes. Image by Bill Lea

### Picnic areas

Picnic areas open year-round are: Cades Cove, Deep Creek, Greenbrier and Metcalf Bottoms. Please see the map on page 16 for locations. Picnic pavilions may be reserved for \$10-\$75 at [recreation.gov](http://recreation.gov).

### Other services

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

	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"

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. On Mt. Le Conte, an average of 82.8" of snow falls per year.

## 1. Cades Cove

*Highlights:* historic buildings, wildlife viewing

Cades Cove is one of the most popular destinations in the Smokies because it offers an unusual blend of both natural and cultural resources.

Deer are often sighted in the fields, and their breeding season (or 'rut') continues through early winter. You might also see bear, coyote or Wild Turkey. Please use pullouts when viewing wildlife. Never approach or feed animals.

A wide array of historic buildings, some dating back to the mid-19th century, are preserved throughout the cove. These include a gristmill, a variety of barns, three churches, and a renowned collection of log and clapboard homes.

An 11-mile one-way loop road takes you around the cove. A visitor center (open daily), restrooms, and the Cable Mill walking tour are located halfway around.

Numerous trails start in the cove, including the 5-mile roundtrip trail to Abrams Falls and the 8.5-mile Rich Mountain loop hike.

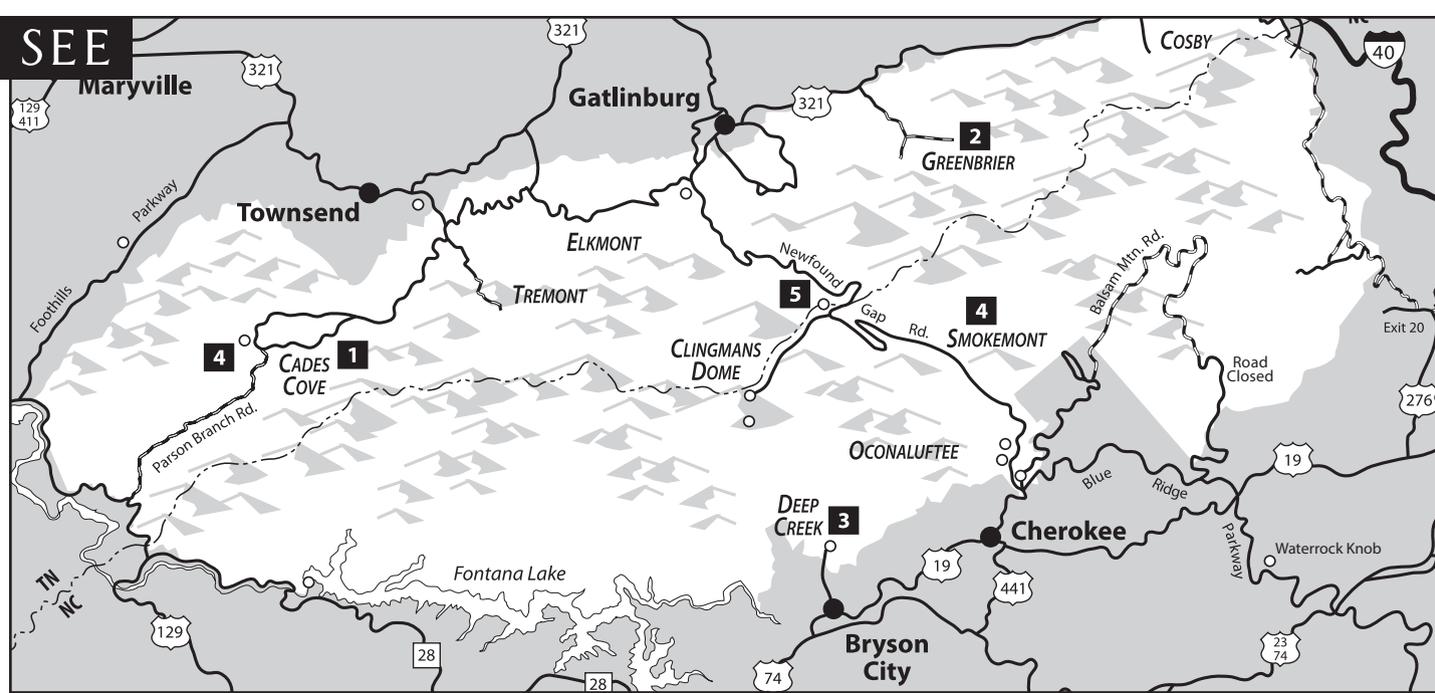
Mileage from Townsend—9  
from Gatlinburg—27

## 2. Greenbrier

*Highlights:* bicycling, walking trails

Greenbrier is a hiker's delight. Trails include Ramsey Cascade, Old Settlers, Grapeyard Ridge, Brushy Mountain and Porters Creek. Ramsey Cascade is a strenuous 8-mile roundtrip hike to the tallest waterfall in the park. Moderate Porters Creek Trail leads 1.8 miles (one-way) past a historic cemetery to Fern Branch Falls. A short side trip takes you to the historic hiker club cabin and barn. Brushy Mountain Trail can be used for a 9.1 mile (one-way) trek to the summit of Mt. Le Conte.

The roads in Greenbrier are mostly gravel and motorists must travel at a slow pace. This makes the area appealing to some mountain bikers, although bikes



are permitted only on roads and not on any of the hiking trails.

Anglers have long frequented the West Prong.

Mileage from Gatlinburg—4  
from Townsend—24  
from Cherokee—41

## 3. Deep Creek

*Highlights:* walking trails, waterfalls, bicycling

The Deep Creek area is an off-the-beaten-path destination in the Great Smoky Mountains, celebrated for its rushing streams and waterfalls. Hikers enjoy the area because of the waterfalls and because there are several loop hikes to choose from. Cyclists can take advantage of one of the few park trails where bicycles are permitted.

Deep Creek area loop hikes include Juney Whank Falls (0.6 mile), Three Waterfalls Loop (2.4 miles), and Deep Creek-Indian Creek Loop (4.4 miles). Longer loop hikes are also available.

Bicycles are allowed on Deep Creek and Indian Creek trails to the points where the old roadbeds end and the trail treads begin.

Deep Creek Picnic Area is open year-round. The picnic pavilion can be

reserved at recreation.gov.

Mileage from Cherokee—14  
from Gatlinburg—48  
from Townsend—65

## 4. Smokemont

*Highlights:* camping, hiking, cemeteries

Smokemont Campground is open year-round. It is situated near the banks of the Oconaluftee River, a major waterway acclaimed for its trout fishing as well as its place in 19th century Smoky Mountain history. When Newfound Gap Road is closed because of snow, this area is still accessible.

A favorite hike in the Smokemont area is the 6.1-mile Bradley Fork-Smokemont loop hike. Highlights of this moderate route include the waters of Bradley Fork and a nearby historic cemetery at the end of the Smokemont Loop Trail. Start the trail near campground D Loop.

Built in 1896, the Oconaluftee Baptist Church is located near the bridge between Newfound Gap Road (U.S. 441) and the campground.

Mileage from Gatlinburg—28  
from Cherokee—5  
from Townsend—46

## 5. Newfound Gap

*Highlights:* snow?

In southern Appalachian vernacular, a gap is a low point in a mountain ridge. New Englanders call such places 'notches' while westerners refer to them as mountain 'passes.'

At nearly a mile high (5,046'), Newfound Gap is significantly cooler than the surrounding lowlands and receives much more snow. On average, 69 inches of snow falls at the gap each year. When there is snow on the ground, and Newfound Gap Road has not been closed, opportunities do exist for snow sports. Many people use Clingmans Dome Road (closed to vehicles in winter) for walking, snowshoeing and cross-country skiing. The road starts 0.1 mile south of Newfound Gap.

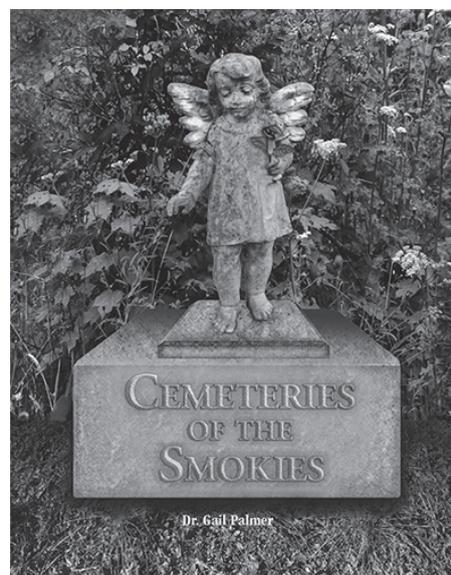
A trip to Newfound Gap is a trip to the Canadian-zone spruce-fir forest. This fragrant evergreen woodland is similar to the boreal forests of New England and eastern Canada.

Mileage from Gatlinburg—16  
from Cherokee—18  
from Townsend—34

## New Book Documents Park's Cemeteries

Prior to the establishment of Great Smoky Mountains National Park, thousands of farm families made their homes in the Smokies. Their histories are not only remembered in the churches, homes, gristmills, barns and schools that are preserved in the national park, they are recorded in the more than 150 cemeteries and better than 5,000 graves that remain.

Cemeteries were one of the more contentious issues during the creation of the park. Families naturally wanted their sacred places protected, even after the land became public. *Cemeteries of the Smokies* by Dr. Gail Palmer is part of that preservation effort. Its 700 pages document the histories of the families and communities that once thrived here and list the locations of each cemetery and grave. Anyone interested in the history of the Smokies and genealogy of mountain families will find this book invaluable. \$29.95. Visit [smokiesinformation.org](http://smokiesinformation.org) or call 888.898.9102 x226. All purchases benefit the park.



*Cemeteries of the Smokies* is a must-have for any Smokies enthusiast's library.

## Please Leave Your Firewood at Home

Wood-boring insects from Europe and Asia have the potential to devastate more than 40 species of hardwood trees in the Great Smoky Mountains. To help prevent this catastrophe from ever happening, the National Park Service has imposed restrictions on the type of firewood that can be brought into the national park. Only certified, heat-treated firewood may now be transported into the park, though dead and down wood may still be collected inside the park for campfires here. Certified wood is now available for sale both inside and outside the park. For more information visit [nps.gov/grsm](http://nps.gov/grsm).



Image by Bill Lea

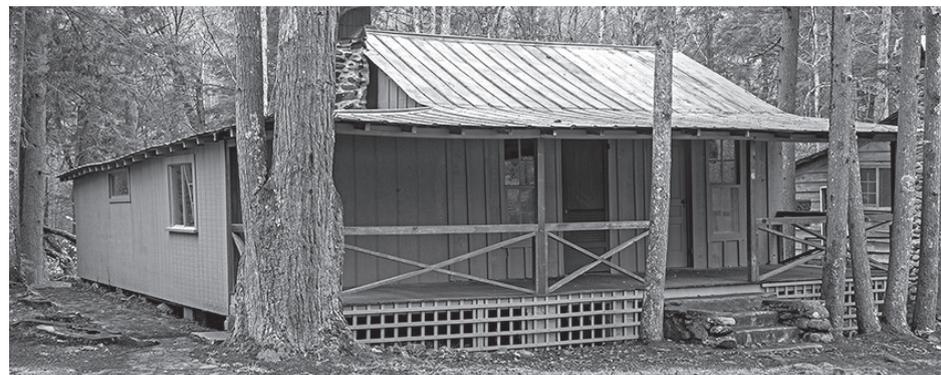
## Elkmont Cabins Beautifully Restored

The national park's historic preservation crew has just completed the renovation of four more historic houses in the Elkmont area. These structures include the Levi Trentham cabin, Mayo cabin, Mayo servants' quarters and Creekmore cabin.

Each structure reveals an important chapter in Elkmont's history. That saga includes a bucolic period of scattered mountain farms, a frenetic logging



Levi Trentham cabin was a historic summer home recently restored in Elkmont by the national park's historic preservation crew. Image by EarthSong Photography/Don McGowan



The historic Creekmore cabin was also restored. Image by EarthSong Photography/Don McGowan

boomtown era, a romantic age of clubs and summer homes, and finally the creation of Great Smoky Mountains National Park in the 1920s and '30s.

With the help of volunteers, the preservation crew cut encroaching trees, repointed fireplaces and chimneys, replaced rotted wood, and repaired windows, doors, cabinets and roofs. The crew had to remove seven layers of tin, tarpaper and shingles from one roof before installing a new metal one. Project manager Randy Hatten said that he is "quite proud of the skill and craftsmanship" that went into the job, including faux painting some of the cabinetry and recreating historic windows from period salvage stock. The houses "look move-in ready now," Hatten added.

To help keep the renovated structures

in tip-top shape, a local Girl Scout troop has volunteered to adopt the historic homes. They will wash windows, sweep floors and report any needed repairs.

Park officials hope to renovate 13 more Elkmont summer homes if funding can be secured. When the Elkmont master plan is complete, 19 structures will have been preserved and 55 removed. Already-renovated structures include the Appalachian Clubhouse and Spence Cabin. Both can be rented for day-use activities such as reunions, wedding receptions and meetings. Visit [recreation.gov](http://recreation.gov) to make a reservation.

The Elkmont historic area is located near Elkmont Campground, between Sugarlands Visitor Center and Metcalf Bottoms Picnic Area on Little River Road. The area is open to the public year-round.

## Fire-damaged Trails Reopened

Great Smoky Mountains National Park officials have reopened the very popular Chimney Tops Trail to a newly developed observation point. The entire trail has been closed since the Chimney Tops 2 Fire in late November 2016. Other fire-damaged trails that officials have recently reopened include Road Prong and Rough Fork.

“We understand that many people have a strong emotional tie to the Chimney Tops Trail and its reopening has been a priority for us,” said Acting Superintendent Clay Jordan.

The extended closure of the trail

allowed the park’s trail crew to design and develop an overlook that provides a safe and sustainable gathering area for hikers to enjoy views of Mt. Le Conte and the Chimney Tops pinnacles. The top 0.25-mile section of trail to the Chimney Tops pinnacles, however, was heavily damaged by the wildfire and will remain closed due to safety concerns.

Funding for this trail rehabilitation project came from donations made by individuals from all across the country to the Friends of the Smokies’ Fire Relief Fund.

Of the numerous trails impacted by the 2016 wildfire, only Bull Head and

Sugarland Mountain remain closed. Both could be repaired and reopened sometime in 2018.

Hikers on the Chimney Tops Trail may not go beyond the closed area due to significant environmental damage and safety concerns. The former trail past the closure continues to erode and slough off the side of the mountain. The Park Service may consider trail rehabilitation and the reopening of this area if and when conditions permit.

**The Chimney Tops view has changed, but visitors are happy about the partial reopening.** Image by Gary Wilson



## Cherokee Preservation Foundation Wins Award and Partners with GSMNP

Funded in part by a grant from the Cherokee Preservation Foundation, and with support from Friends of the Smokies and the Great Smoky Mountains Association, SPiN is an educational partnership between Cherokee Middle School in Cherokee, NC, and Great Smoky Mountains National Park. CPF’s mission is to preserve native culture, protect and enhance the natural environment and create diverse economic opportunities in order to improve the quality of life for the Eastern Band of Cherokee Indians and those in western North Carolina.

“The geography and history of the park come to life for students through both in-class and in-park experiences,” said Julie W. Townsend, SPiN’s program coordinator. “We also provide teachers with pre-site, on-site and post-site activities and materials to extend and enrich the experience of each park visit.”

Because of its dedicated support of community strengthening programs such as SPiN, CPF was chosen to receive the Outstanding Foundation Award for National Philanthropy

Day, an event highlighting regional philanthropists, held in Asheville, NC, on November 14. The award, presented by the Association of Fundraising Professionals, honors a foundation that demonstrates outstanding commitment through financial support and through motivation of others to take philanthropic leadership.

“Cherokee Preservation Foundation has proven their commitment to the community by working with others in our region to build relationships between the National Park Service, nonprofits, businesses and the Eastern Band of Cherokee Indians in western North Carolina including the Qualla

*“It was so awesome up there in the woods and made me feel so proud to be Cherokee.”*  
~Tally, 6th grade

Boundary,” wrote Friends of the Smokies President Jim Hart as part of the nomination materials.

CPF funds a number of projects in western North Carolina, yet SPiN, with support from FOTS and GSMA, uniquely connects students to the park’s resources through culturally relevant experiential learning, affirming stewardship while fostering emotional and intellectual connections to the park as well as to historic Cherokee lands, and increasing students’ aware-

ness of further educational and professional opportunities.

Townsend collaborates with CMS teachers, EBCI Tribal Historic Preservation Office, EBCI Fisheries and Wildlife Management, the Museum of the Cherokee, Cherokee Choices, and additional EBCI community members. Through trips to GSMNP, SPiN provides direct student involvement with real data collection on a variety of long-term research projects that monitor the effects of threats to park resources. Ongoing professional development workshops created through collaboration, as well as research to meet the goals of CMS and EBCI, are provided to teachers and park rangers.

“Cherokee Preservation Foundation has opened a new door for Great Smoky Mountains National Park,” Hart said, “by collaborating between park rangers, teachers, community members and Cherokee tribal resources to support education with culturally relevant curriculum specific to Great Smoky Mountains National Park.”



**Cherokee Middle School students in the SPiN program visit Great Smoky Mountains National Park.** Image by Julie W. Townsend

## Forests Rebounding After Wildfires

Park fire ecologist Rob Klein says there are three big ecology stories in the aftermath of the November 2016 wildfires that burned 11,000 acres in Great Smoky Mountains National Park. The first headline is that in the high intensity burn areas (encompassing approximately 1,700 acres) young, fire-dependent pine seedlings are coming back with a vengeance. “Where the fire killed the mature trees, thousands and thousands of seedlings are coming on strong,” Klein said. Over the next 5-10 years, he predicts these sites will develop into dense thickets of table mountain pines and pitch pines.

The second story is not so encouraging. “We’re also seeing invasive non-native plants by the hundreds,”

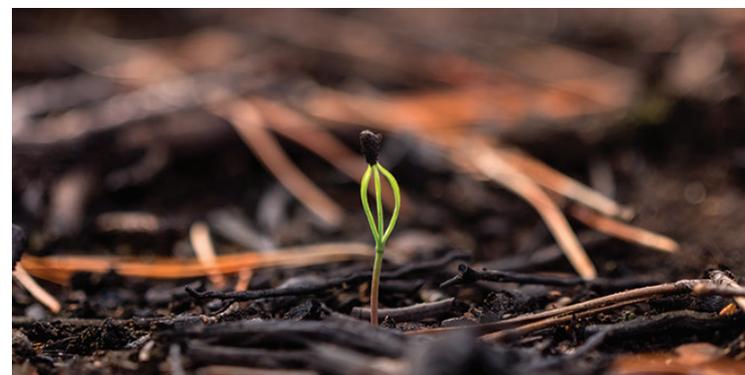
Klein said. “Princess tree, colt’s foot and even Chinese silver grass.”

Harmful non-native plants often invade an area after a disturbance such as fire or road building. They are opportunists that thrive in places where the soil duff has been removed and sunlight increased. The most aggressive non-natives (e.g. kudzu and oriental bittersweet) can expand to dominate a site and crowd out native plants and wildlife. Invasive plants may spread from gravel, from straw used for erosion control, or from plants used as landscaping.

The park’s vegetation management crew has been hard at work since early spring, hiking more than 70 miles throughout the burned areas to identify and treat invasive plants. More than three thousand princess tree seedlings and more than five thousand mimosa

seedlings have been removed. Monitoring and treatment will continue for several more years.

Thirdly, Klein and other researchers are pleased to report a resurgence of some rare plants. On the scorched flanks of Mt. Le Conte, mountain fetterbush (*Pieris floribunda*), a rare shrub in the park, is resprouting, flowering and producing seeds with renewed vigor. An attractive flowering vine called climbing fumitory (*Adlumia fungosa*) is suddenly thriving, as is the uncommon wildflower called Blue Ridge Mountain banner



A table mountain pine sapling (*Pinus pungens*) sprouts less than three months after the wildfire consumed the area. This species needs fire to propagate. Image by Gary Wilson

(*Thermopsis mollis*). It’s likely these and other rare park plants depend to some extent on natural fire to proliferate.

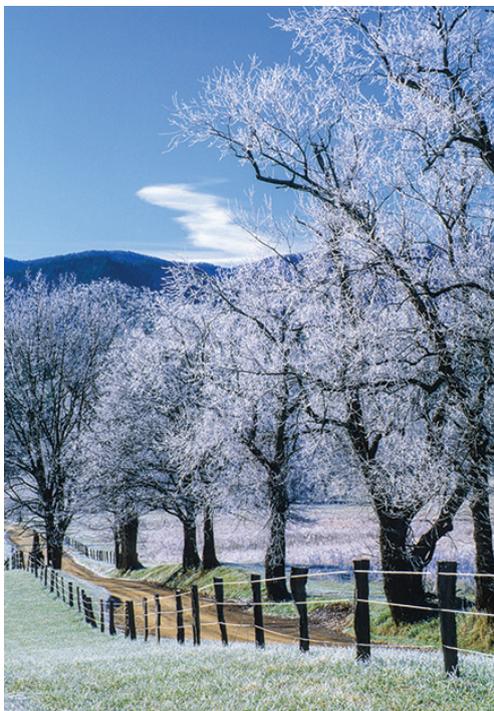
“Next year will be a riot of dense vegetation,” Klein predicted. “Everything from mushrooms to blueberries is getting a boost.” For information on landscaping with native plants, visit your state’s native plant society’s website.

## Cades Cove Switches to Solar Power

By early 2018, most of the energy to power Cades Cove Visitor Center and the restroom facility next door will come from the sun. The National Park Service is using funds it received from a competitive federal environmental grant to install approximately 2,000 square feet of solar panels behind Cades Cove Visitor Center.

Much of Cades Cove, which welcomes more than two million visitors each year, has been ‘off-the-grid’ for its entire existence. For many years the power to run the visitor center and restrooms has been furnished by multiple diesel or propane-powered generators. The propane generators will remain in place as backups to the solar panels.

“We estimate a savings of over \$14,000 per year in fuel costs,” said Brian Bergsma, acting chief of facilities management for the Park Service, “and an annual reduction of 23 metric tons in carbon emissions.”



Since the 11-mile loop road is only open from sunrise to sunset, the site is a perfect fit for solar power. Image by Bill Lea.

The solar panels will directly power the visitor center and restrooms, as well as charge a bank of batteries. “The panels should produce 20 percent more electricity than the generator system can,” Bergsma stated. The batteries will help provide power on cloudy days.

Additional benefits from the new system include a reduction in the noise produced by the propane generators and decreased maintenance needs. “It’s also a great way for park visitors to see clean energy in action,” said Herb Kupfer, the project’s manager. “They’ll be able to have a look at the panels and experience the benefits in the heated and well-lit visitor center.”

Next door to Cades Cove visitor center, the public can also observe old-fashioned clean energy in action as the waters of Mill Creek turn the big wheel of Cable Mill, rotating the stones that grind corn into corn meal.

### GSMNP FIRE FACTS:

**Start date:** The Chimney Tops 2 Fire started on November 23.

**Origin:** Fire was allegedly started by two juveniles on a Chimney Tops pinnacle.

**End date:** Fire was not completely extinguished until January 28.

**Park structures damaged:** None (Numerous historic and administrative buildings in the Cherokee Orchard area were saved by fire fighters).

**Degree of impact:** 1,700 acres high intensity fire; 1,400 acres moderate intensity fire; 7,000 acres low- or very-low intensity fire.

**Where to observe fire impacts:** Newfound Gap Road (TN side), Cherokee Orchard Road, lower Cove Mountain Trail, Baskins Creek Trail.

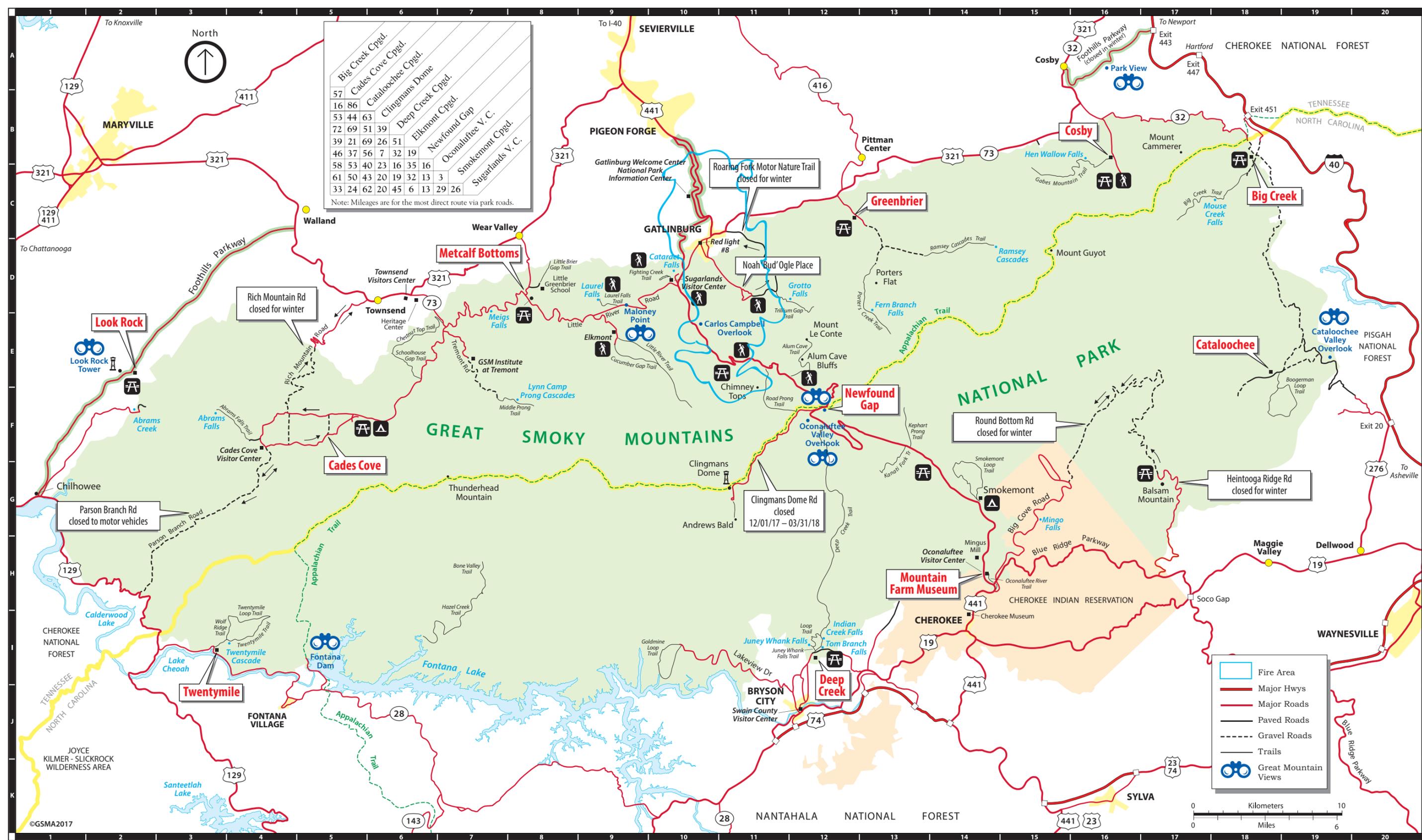
# Winter Road and Recreation Information

Many secondary and higher elevation park roads are closed to motor vehicles in winter. These include Clingmans Dome, Balsam Mountain-Heintooga Ridge, Rich Mountain, Round Bottom-Straight Fork, Little Greenbrier and Roaring Fork Motor Nature Trail. Forge Creek Road (in Cades Cove) closes from January 1 to mid-March. Walkers and bicyclists are welcome to use these seasonally closed roads (some of which have gravel surfaces) as long as no maintenance work is underway.

Upper Tremont Road (beyond the institute) may close for an extended period after winter storms. Parson Branch Road is closed indefinitely because of hazardous trees. All park roads, including Newfound Gap, Cataloochee and Cades Cove, are subject to extended closures due to snow, wind and rain events.

Keep in mind that access to many trailheads is also impacted by these seasonal and inclement weather closures. For more information, call 865.436.1200, 865.436.1230 or 865.436.1297 (backcountry trails office).

For people seeking a place to play in the snow, Clingmans Dome Road (closed in winter) is popular with walkers and cross-country skiers. There are no areas suitable for sledding in the park; snow-tubing slopes may be available locally.



# WINTER LARDER

*Mountain families raised and preserved an array of foods*

It's easy to imagine a 19th century Smoky Mountain farm family huddled around the supper table on a bitterly cold winter evening staring forlornly at another meal of salty pork and cornbread. Fortunately for the families, this scenario was almost never the case.

Smoky Mountain families were diversified in their methods for raising and preserving food. Even without the advantages of refrigerators, freezers or store-bought canned foods, families entered winter with a colorful feast of tasty fruits, vegetables, beans, breads and other nourishing foods.

*Illustration by Emma DuFort*

## **Apple vinegar**

Vinegar was made either by allowing apple cider to 'spoil' or simply setting out a crock full of rotting apples. Once thoroughly fermented, the highly acidic and flavorful liquid could be used to make everything from pickles and coleslaw to relish and chow chow. Most mountain families kept a big ceramic crock of vinegar on hand at all times.

## **Relish**

Could include peppers, carrots, corn, onions, tomatoes, squash, cucumbers, spices and even apples. Relish was put up in canning jars or simply stored in a covered crock in the springhouse. It was used to flavor cornbread, beans, pork, potatoes and other dishes.

## **Chow chow**

Includes cabbage, tomatoes, peppers, onions and spices and could be used as a zesty condiment on a wide variety of foods.

## **Fruit preserves**

The ingredients were simply wild mountain berries or orchard fruits, plus sugar. Delicious local varieties included blackberry, strawberry, peach, crab apple and gooseberry.

## **Fruit butters**

Apples or peaches were slowly cooked for hours in a copper kettle to produce these flavorful spreads.

## **Pickles**

Lots of foods besides cucumbers were pickled; even peaches, tomatoes, cauliflower, Jerusalem artichokes and okra. Added ingredients included vinegar, spices, salt and sugar.

## **Buried vegetables**

Cabbage could be buried in the garden with straw and leaves and it would keep for months. Potatoes likewise could be kept in the ground or stored conveniently beneath the cabin floorboards in a 'tater hole.'

## **Dried fruits and vegetables**

Apples and peaches were thinly sliced and dried in the sun. Green beans, called 'leather britches,' were strung with thread and hung in a sunny spot to dry. Some fruits were also preserved by 'sulfuring.'

## **Meats**

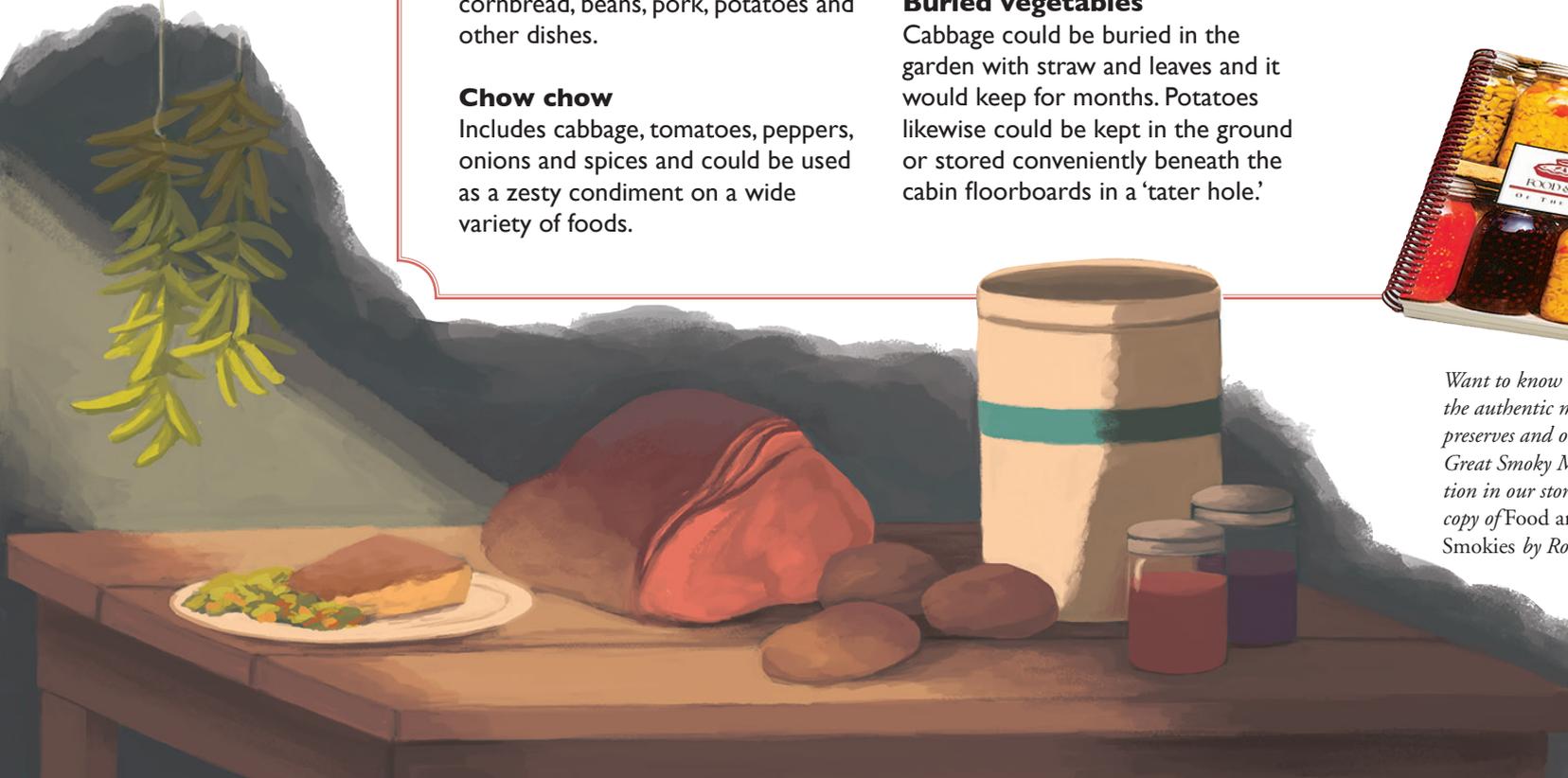
Pork (smoked and salted ham, bacon, etc.), fresh rabbit, deer, squirrel, quail, turkey and, of course, chicken.

## **Corn**

This mainstay of mountain cuisine could be dried and ground into cornmeal, pickled, parched, used in succotash, or cooked with lye to make hominy.



*Want to know more? Try some of the authentic mountain relishes, preserves and other fare offered by Great Smoky Mountains Association in our stores. And pick up a copy of Food and Recipes of the Smokies by Rose Houk.*



# The Great Indoors

*When Mother Nature gets gloomy, plan to explore the Smokies' rich cultural heritage*

When the weather calls for indoor activities, visitors to the Great Smoky Mountains still have a wide range of options for exploring the natural and cultural histories of the Smokies. Five quality museums with updated exhibits are located either inside the park or within five miles of its entrances. All are open year-round.



Swain County Visitor Center and Heritage Museum.  
*Image by GSMA*

**Swain County Visitor Center and Heritage Museum**  
**Located downtown Bryson City, NC, at the corner of Main and Everett Streets**  
**Open 9 a.m. to 5 p.m.**  
**Admission: Free**  
**865.436.7318 x318**

The heritage museum covers the dramatic history of Swain County, NC, including the story of Cherokee Indian towns like Kituwaha, Euro-American settlers eking out a living from the rugged Smoky Mountains, Civil War battles, moonshiners, bear hunters, Fontana Dam, and the creation of the national park. The museum includes interactive exhibits just for kids as well as video presen-

tations, a real log cabin and many mural-sized photographs and artifacts.

In the visitor center, there is information about hiking, rafting sightseeing and riding the Smoky Mountain Railroad.

**Oconaluftee Visitor Center and Museum**  
**Located on U.S. 441 in Great**

**Smoky Mountains National Park, 2 miles north of Cherokee, NC**  
**Open 8 a.m. to 4:30 p.m.**  
**Admission: Free**  
**828.497.1904**

Exhibits include audio recordings of mountain folk, park artifacts, video clips, 3-D maps and historic photographs. There is a well-staffed information desk and a bookstore inside as well. Outside the

visitor center, more than a dozen historic log buildings are preserved on the Mountain Farm Museum. In addition, a walking and bicycling trail follows the river to Cherokee.



Oconaluftee Visitor Center two miles north of Cherokee, NC. *Image by James Walker*

**Great Smoky Mountains Heritage Center**

**Located on Highway 73 in Townsend, TN**

**Open 10 a.m. to 5 p.m. Monday-Saturday; 12 to 5 p.m. Sundays**  
**Admission: \$7 adults, \$5 seniors and kids 6-17, free for kids 5 and under**

**865.448.0044**

The heritage center is located on six acres and showcases both indoor and outdoor exhibits. Subject matter features east Tennessee American Indian history and the lives of Euro-American settlers. Among the items on exhibit are more than 100 artifacts from the park's collection.

**Sugarlands Visitor Center and Museum**

**Located on U.S. 441 in Great Smoky Mountains National Park, 2 miles south of Gatlinburg, TN**  
**Open 8 a.m. to 4:30 p.m.**

**Admission: Free**  
**865.436.1291**

Sugarlands offers a free 20-minute film shown on the hour and half hour in a state-of-the-art surround-sound theater. The film provides an overview of the park's natural and cultural history. Exhibits in the museum area use



The very knowledgeable staff at Sugarlands Visitor Center can help enhance your trip to the Smokies. *Image by Bill Lea*

intricate re-creations to spotlight the Smokies' rich habitats and diverse plant and animal life. There is a well-staffed information desk and a bookstore inside as well. Outside, several short trails lead to natural and historic points of interest.

**Museum of the Cherokee Indian**  
**Located on U.S. 441 in Cherokee, NC**

**Open: 9 a.m. to 7 p.m.**

**Admission: \$6-10**  
**828.497.3481**

The exhibit "Story of the Cherokees: 13,000 Years" received an award from the National Association for Interpretation, and has been called "A model for museums," by Van Romans, Disney Imagineering. This exhibit uses artifacts, artwork, life-sized figures and computer generated animation to tell the story of the Cherokee people and their long life in the region.

# See the Park in a New Way

*The National Park Service and its partners are offering exciting new ways to experience the Smokies*



and the U.S. Geological Survey. The project is focused on bears that occasionally leave the park to forage near homes and businesses. This allows park staff to zero in on areas where bears are finding garbage and other human-related foods. [nps.gov/grsm/learn/nature/black-bears.htm](http://nps.gov/grsm/learn/nature/black-bears.htm)

## Find a critter

Want to know the best places to look for a Common Raven? How about flame azalea? The national park's species mapper displays the likely ranges and habitats for hundreds of species of plants and animals. Easy and fun to use! [science.nature.nps.gov/parks/grsm/species/](http://science.nature.nps.gov/parks/grsm/species/)

## Track a bear

Researchers are able to track the movements of collared black bears as they ramble in and around the national park thanks to a partnership between the Park Service, the University of Tennessee, Tennessee Wildlife Resources Agency,

## Web cams

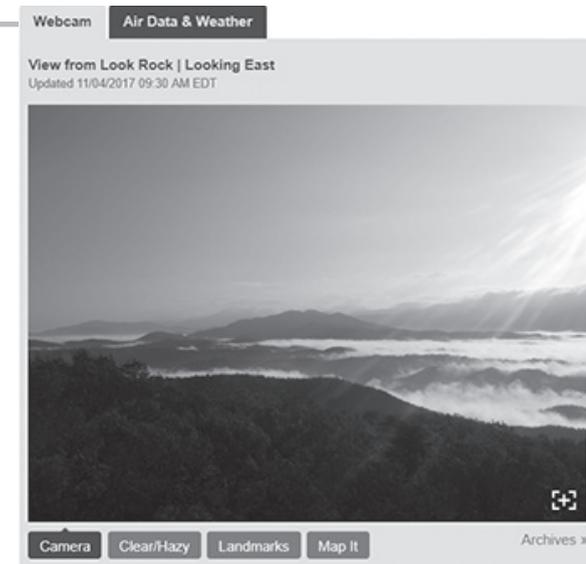
How's the weather in the park right now? Real-time images from Purchase Knob, Look Rock and Newfound Gap (available in spring). [nps.gov/grsm/learn/photosmultimedia/webcams.htm](http://nps.gov/grsm/learn/photosmultimedia/webcams.htm)

## Smokies mobile app

Includes maps and basic park information on where to go and what to see. [nomadmobileguides.com/portfolios/great-smoky-mountains-national-park/](http://nomadmobileguides.com/portfolios/great-smoky-mountains-national-park/)

## Cemeteries map

Are your ancestors buried in the park? Get a basic map of the park's more than 150 cemeteries. [nps.gov/grsm/planyourvisit/maps.htm](http://nps.gov/grsm/planyourvisit/maps.htm)



## Discover life

Discover Life in America has embarked on the adventure of identifying every species of plant and animal in the park. They have found thousands! See the list at [dlia.org/smokies-species-tally/](http://dlia.org/smokies-species-tally/)

## Smokies Species Tally

**986**

Species New to Science

**9,196**

Species New to Park

**19,375**

Total Species in Park

## Even more maps

Maps that highlight locations of park restrooms, historic buildings and high points (including elevations). Also check out GPS-enabled topographic maps (like Avenza maps) you can use on your mobile devices. Find other maps at [nps.gov/grsm/planyourvisit/maps.htm](http://nps.gov/grsm/planyourvisit/maps.htm)



# Prepping for winter in the Mountains

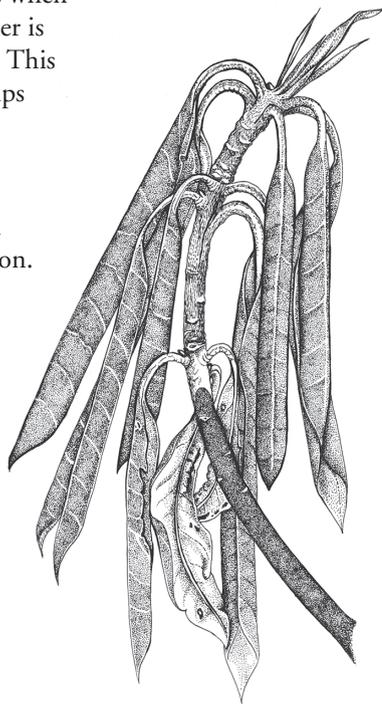
*Plants and animals employ a sophisticated variety of strategies to survive winter in the Great Smoky Mountains.*

## Trees

During cold weather, water is a challenge to trees. On a microscopic level, the water in trees' cells could freeze and damage the cells. So as winter approaches, trees transfer the water to the outside of their cell walls. Some plants even produce chemicals that serve as antifreeze, preventing damaging ice crystals from forming.

## Rosebay rhododendron

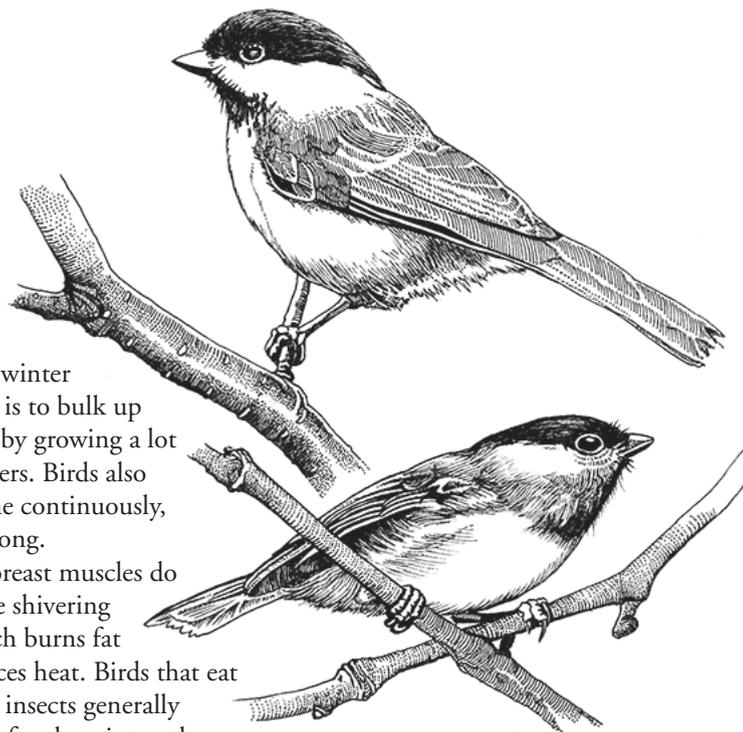
'Rhodo' is one of the most common shrubs in the park. Its long thick leaves curl up like cigars when the weather is very cold. This action helps the plant conserve moisture and avoid dehydration.



## Birds

One avian winter adaptation is to bulk up their coats by growing a lot more feathers. Birds also shiver, some continuously, all winter long.

Their breast muscles do most of the shivering work, which burns fat and produces heat. Birds that eat only flying insects generally head south for the winter; those that stay can survive on berries, seeds, insect larvae and insect eggs.



## Bears

About half the bears that live in the Great Smoky Mountains make their winter dens in standing hollow trees. They may rouse themselves periodically and take a look around, then return to slumber. Females give birth to one to three 8-ounce cubs in mid-winter. By the time cubs emerge from their dens in spring, they are old enough to climb trees and race around in the forest.

## Bats

Some tree bats migrate south for the winter, while other species go to caves and hibernate. Bats may travel more than 100 miles to return to a good winter cave. In hibernation, their body temperatures drop to the approximate air temperature of the cave and their heart rates and breathing slow significantly.



Illustrations by Joey Heath



zation that assists the National Park Service by raising funds and public awareness and providing volunteers for park projects.

Since 1993, Friends has raised more than \$50 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! Call Friends of the Smokies at 865.932.4794 or 800.845.5665, or visit [friendsofthesmokies.org](http://friendsofthesmokies.org).

## Great Smoky Mountains Institute 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 educa-

Image by Bill Lea

tion, teacher escapes, naturalist weekends and photography. GSMI at Tremont also offers a variety of summer youth camps in the national park lasting from 6-11 days and starting at \$589. Fees include meals, lodging and most equipment. Upcoming 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 visit [gsmit.org](http://gsmit.org).

## Friends of the Smokies

Friends of Great Smoky Mountains National Park is a nonprofit organi-

## Great Smoky Mountain Association

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. By the end of 2017 alone, the association had provided more than \$1.3 million in assistance that includes saving hemlock trees, living history demonstrations, environmental education programs, salaries for wildlife personnel, and historic preservation.



outings to Twentymile Loop, Porters Creek, Gregory Bald, Boogerman Trail, Charlies Bunion, cemeteries, and more. All hikes are led by knowledgeable staff who love to share the park with others. Groups are limited to 20 people.

Also this year, ask us about Gear Fest programs and special gear discounts.

Join today using the coupon to the right, visit [SmokiesInformation.org](http://SmokiesInformation.org), or call us at 888.898.9102 x349. Memberships start at just \$35 per year.

## Smoky Mountain 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 and workshops on wildlife, edible plants, wildflower photography, animal tracking, bird watching, salamanders and mountain cooking. One-day programs start at as little as \$79. Contact: 865.974.0150 or visit [smfs.utk.edu](http://smfs.utk.edu).

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*
- Digital access to the award-winning quarterly park newspaper, *Smokies Guide*, and the association's newsletter, *The Bear Paw*
- A 15-20% discount on books, music, gifts and other products sold at park visitor centers and at our web store
- Special GSMA "Hiking 101"

## GSMA MEMBERS

### Get Rooted in the Smokies!

- Acorn (youth) Membership \$15
- Buckeye Annual Membership \$35
- Chestnut Annual Membership \$100
- Dogwood Membership \$200
- Hemlock Lifetime Membership \$1,000 payable in 5 installments
- Lookout League Business Memberships \$250-\$10,000

## SIGN ME UP!

Name(s) \_\_\_\_\_

Address \_\_\_\_\_

Email (for Cub Report) \_\_\_\_\_

Phone # \_\_\_\_\_

Please include your check with this form.

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

# Ella Costner

*Poet Laureate of the Smokies*



*Illustration by Joey Heath*

Visitors to the Great Smoky Mountains who have walked the Snake Den Ridge Trail out of Cosby Campground have probably noticed the small Williamson cemetery on the right side of the path. It contains around two-dozen graves, including that of Ella V. Costner. Her prominent monument states she was born in 1893, died in 1982, and that she was “Poet Laureate of the Smokies.”

Passing hikers who wonder who Costner was and what “Poet Laureate of the Smokies” means should be impressed by the answers.

Costner was born very near where she is buried and spent her childhood with parents and eight siblings crowded in a modest log cabin in the shadow of Mt. Cammerer (then called White Rock). She left home abruptly at age 15 to escape a potential forced marriage and other circumstances and literally hitched a ride on the apple cart to Newport, TN. From there, Costner’s amazing, whirlwind, fearless and exotic life of adventure began.

While in Newport and Johnson City, TN, Costner devoted herself to education and earned teaching credentials before moving to Texas to study nursing. Her successful nursing career took her to New York City and then the Panama Canal Zone where her close friends included John Arosemena, the future president of Panama.

From Central America, Costner’s wanderlust led her back to Texas, on to Florida, and included the study of homeopathy and theosophy. Then, at age 40, after a short-lived marriage, Costner returned to her family in Cosby and became proprietor of the White Rock Inn. The business was popular with tourists and locals

alike, particularly after she began selling high quality moonshine.

Never one to stay put for long, Costner joined the army as a nurse and became a second lieutenant serving in Hawaii and Guam and caring for patients recovering from the attack on Pearl Harbor and Battle of Iwo Jima. In her spare time she wrote a regular column for the *Honolulu Star Bulletin*.

After the war, rather than settling into a peaceful retirement, Costner went back to college and earned a degree in English from Carson-Newman University. Her literary career included the publication of six books, three of poetry and three semi-autobiographical prose. In 1971, following the publication of her book *Barefoot in the Smokies*, the Tennessee state legislature

acknowledged her as “Poet Laureate of the Smokies.”

*To learn more about Ella V. Costner, see Smokies Life Magazine Vol. 6; #2, published by Great Smoky Mountains Association. For more information on park cemeteries, check out Cemeteries of the Smokies, also published by GSMA.*

## *From My Window*

*From my window I see,*

*(my neighbor)*

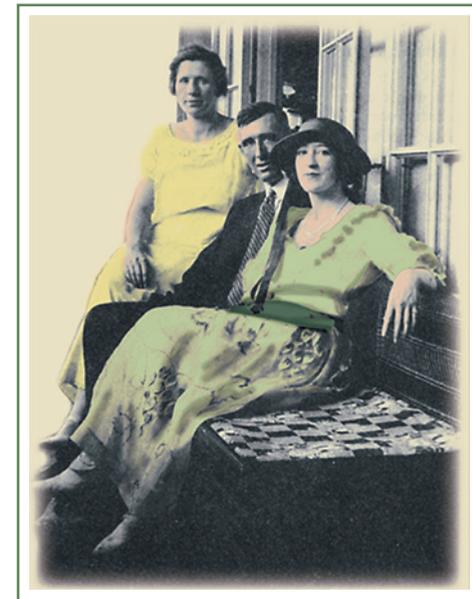
*A garden, a tree*

*A mountain*

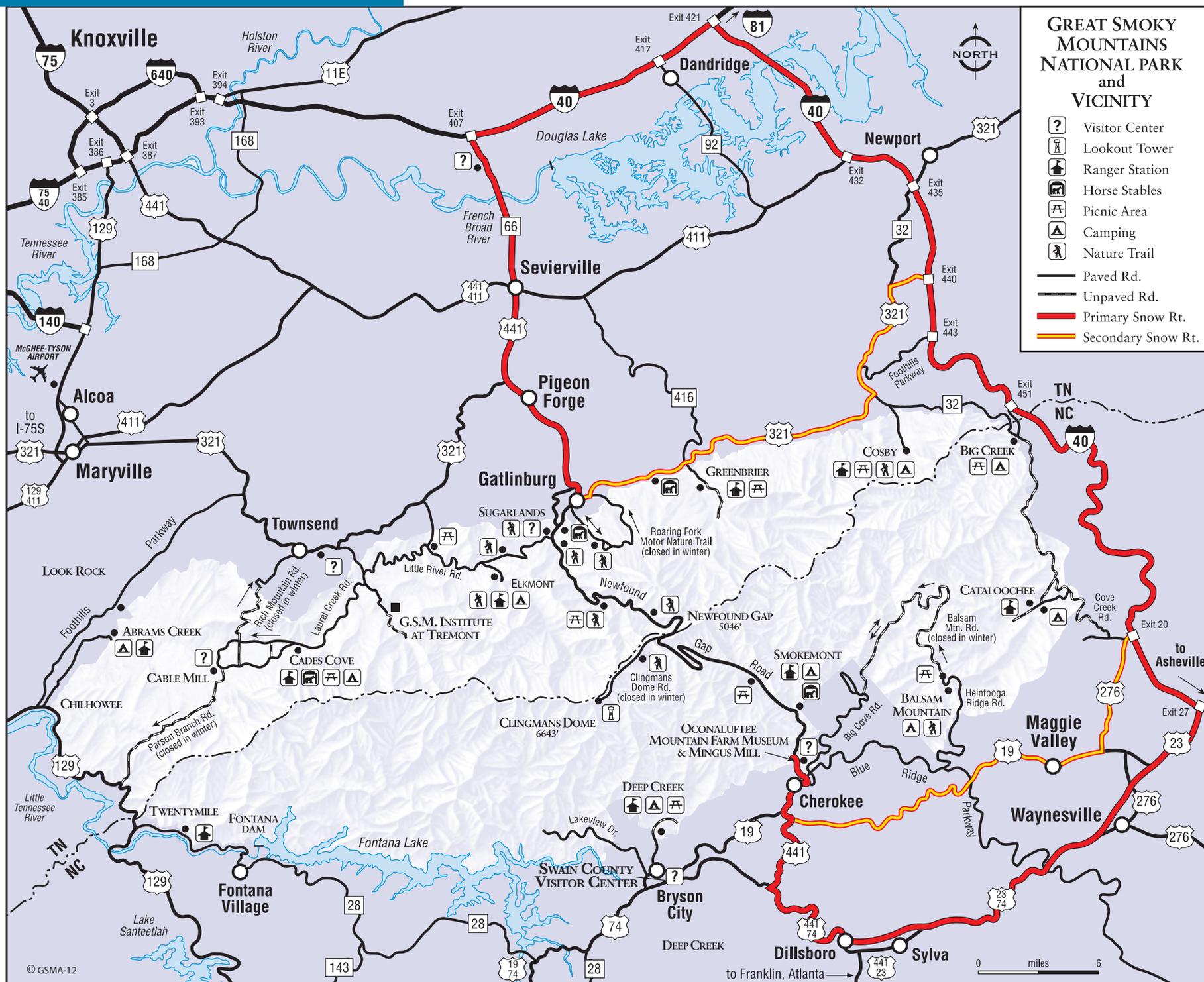
*And patch of sky,*

*And below them the river*

*Running by.*



*Ella Costner and friends in Panama. Image by NPS*



## Snow Routes

For periods when Newfound Gap Road (U.S. 441) is closed because of snow, alternate routes around the Smokies are shown below. Commercial traffic must use 'Primary' routes. 'Secondary' routes are

shorter, but the roads are steeper and more winding.

## 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  
 U.S. 321, Maryville, TN  
**Haywood County**  
 828.456.7311  
 Waynesville, NC  
**Swain County**  
 828.488.2155  
 Bryson City, NC

## Avoid the Fine

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.

## All-access

Restrooms at all park visitor centers (Cades Cove, 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.