



SMOKIES GUIDE

The official newspaper of Great Smoky Mountains National Park • Winter 2019-20

In this issue

- Smokies Trip Planner • 2**
- Great Sights to See • 4**
- National Park News • 5**
- Jr. Ranger Corner • 7**
- Winter Driving Map • 8**
- Winter Wildlife Watching • 10**
- State of the Park • 12**
- How to Help the Smokies • 14**
- Park Etiquette • 15**
- Visitor Information • 16**



Stoney Mulford, Engineer Equipment Operator Supervisor

Be sure to check the weather forecast and road conditions before traveling to the park. *Image courtesy of NPS*

Winter in the Mountains Brings Beauty, Snow and Ice

Exploring the park this season is a delight made possible by Smokies road crews

Winter in the Great Smoky Mountains may not bring the celebrated blooms of spring wildflower season, the long, warm days and lazy summer nights of June and July, or the famously brilliant colors of fall, but it possesses an allure that can be observed in quiet forests, frigid rushing streams, frosty fields, and snowy mountain landscapes. Visitors who seek these destinations are rewarded with fewer crowds compared to other seasons and a unique beauty only this time of year offers.

That's not to say that winter is a time of inactivity. In fact, the park's roads crews may be busier than ever responding to winter weather events that close roads and disrupt travel. Many secondary roads in the park are winding, high-elevation roads or gravel backroads and therefore are closed during the winter season (see map on pages

8-9). Other roads, like Newfound Gap Road (U.S. 441), are subject to extended weather-related closures and require a great deal of work to reopen.

Newfound Gap Road stretches 33 miles across the mountains to an elevation of 5,046 feet and connects Gatlinburg, TN, to Cherokee, NC. When heavy snow falls or slick conditions develop, it is a team effort of crews coming from each side of the mountain and meeting at the top to get the road cleared across its mountainous path.

"As roads crews in the nation's most visited national park," said North District Roads Supervisor Stoney Mulford, "it's important that we support visitor enjoyment and safety by providing well maintained and safe roadways for travel.

Continued on page 6

OUR PARK ON SOCIAL MEDIA



GreatSmokyMountainsNPS



GreatSmokyNPS and SmokiesRoadsNPS



GreatSmokyNPS

Words with a Ranger

As the roads supervisor on the Tennessee side of the park, one of the best parts of my job is going up the mountain to Newfound Gap when U.S. 441 is closed after a snow event and experiencing how peaceful and quiet it is.

During winter storms, visitors may be disappointed to find that some park roads are closed. What the majority of people don't realize is that we don't use salt within the park because it can damage the plants and streams that

Words with a Ranger continued on page 5

Camping in the national park

The National Park Service maintains developed campgrounds at nine locations in the park. Due to work on the Bote Mountain Tunnel and no access to Cades Cove this winter (see page 6), Cades Cove Campground will be closed. Elkmont and Smokemont campgrounds are open.

There are no showers or hookups other than circuits for special medical uses at Cades Cove, Elkmont and Smokemont. Campsites may be reserved up to six months in advance. Reservations are *required* at Abrams Creek, Balsam Mountain, Big Creek and Cataloochee campgrounds.

Site occupancy is limited to six people and two vehicles (a trailer = one 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 and may be secured up to a year in advance.

The list below shows number of sites, elevations, expected opening dates, nightly fees and maximum RV lengths. Call 877.444.6777 or contact recreation.gov to make reservations.

- **Abrams Creek** 16 sites, elev. 1,125', opens April 24, \$17.50, 12' trailers
- **Balsam Mountain** 42 sites, elev. 5,310', opens May 15, \$17.50, 30' RVs
- **Big Creek** 12 sites, elev. 1,700', opens April 3, \$17.50, tents only
- **Cades Cove** 159 sites, elev. 1,807', closed Dec. 30, 2019–March 5, 2020, \$21-\$25, 35'-40' RVs
- **Cataloochee** 27 sites, elev. 2,610', opens June 11, \$25, 31' RVs
- **Cosby** 157 sites, elev. 2,459', opens April 2, \$17.50, 25' RVs
- **Deep Creek** 92 sites, elev. 1,800', opens May 21, \$21, 26' RVs
- **Elkmont** 220 sites, elev. 2,150', open

year-round, \$21-\$27, 32'-35' RVs

- **Smokemont** 142 sites, elev. 2,198', open year-round, \$21-\$25, 35'-40' RVs
- **Look Rock** closed in 2020

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.

Accommodations

• **LeConte Lodge** (accessible by trail only) provides the only lodging in the park. 865.429.5704 or lecontelodge.com
For information on lodging outside the park:

- **Bryson City** 800.867.9246 or greatsmokies.com
- **Cherokee** 828.788.0034 or cherokeesmokies.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

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. Dogs on these trails must be leashed.

CADES COVE CLOSED

January 2 at 8 p.m. —
February 29, 2020

See page 6
for more information.

Special events

- December 14** Festival of Christmas Past:
Sugarlands Visitor Center
- December 21** Holiday Homecoming:
Oconaluftee Visitor Center
- April 21-25, 2020** Spring Wildflower
Pilgrimage: parkwide

For rent

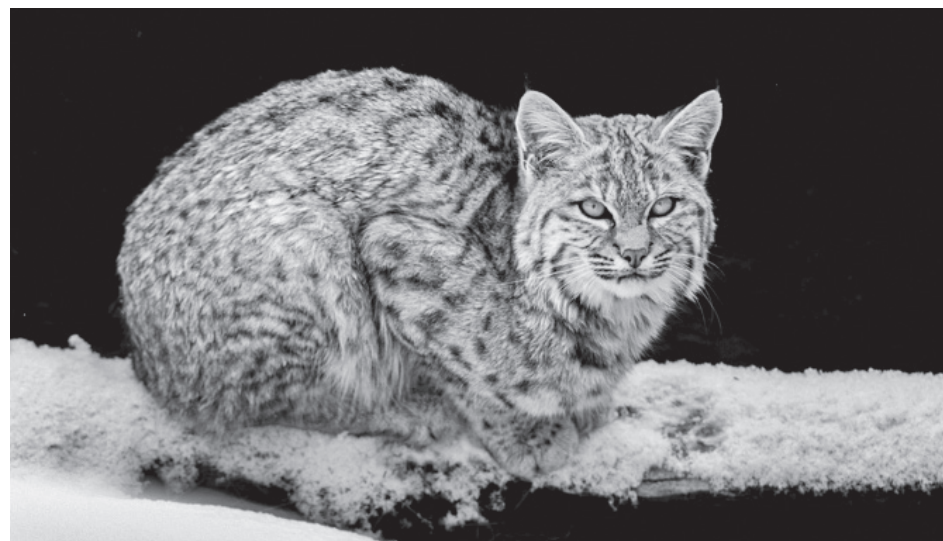
The Appalachian Clubhouse and Spence Cabin at Elkmont can be rented for daytime events starting in April. Contact recreation.gov.

Visitor centers

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

Picnic areas

Picnic areas open year-round are: Deep Creek, Greenbrier and Metcalf Bottoms. All others are expected to open in spring. Cades Cove is closed due to work on Bote Mountain Tunnel (see page 6). Picnic areas have a table and raised grill (charcoal fires only). See the map on page 16 for locations. Picnic pavilions may be reserved for \$12.50–\$80 at recreation.gov.



During winter, wildlife is more visible because deciduous trees have lost their leaves. Use the rule of thumb (*illustrated on the next page*) to view all wildlife, including this bobcat. Image by Bill Lea

SMOKIES GUIDE

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

nps.gov/grsm

Publication dates are roughly as follows:
Spring: mid-March
Summer: early June
Late Summer: mid-August

Autumn: mid-Sept.
Winter: mid-Dec.
Editor
Frances Figart

Writers
Valerie Polk
Aaron Searcy

Lead Designer
Karen Key

Design Assistants
Lisa Horstman
Emma DuFort

NPS Coordinator
Susan Sachs

Planning Committee
Katie Corrigan
Becky Nichols
Bill Stiver
Paul Super

Stephanie Sutton
Florie Takaki
♻️ Printed on recycled paper

© 2019 Great Smoky Mountains Association
P.O. Box 130
Gatlinburg, TN 37738
SmokiesInformation.org

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!

packers 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 three to five times per year. At Newfound Gap, 69" fall on average. Lows of -20°F are possible at the higher elevations.

Fishing

Fishing is permitted year-round in the park, and 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.

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. **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. 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.

2. **Plan your trip.** 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. **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.

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.

Driving distances and estimated times

Allow for longer driving times during poor weather.

Cherokee, NC to:

Gatlinburg: 34 miles (1 hour)
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)
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:

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)

Other services

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

Park weather

- **Spring** - March has the most changeable weather; snow can fall on any day, especially at the higher elevations. Back-

	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.

GREAT SIGHTS TO SEE

1. Cosby

Highlights: hiking, waterfall, scenic drive, mountain views

Cosby features hiking trails that offer a little something for everyone. The mile-long Cosby Nature Trail is a good way to stretch your legs and get acquainted with the area. The 4.2-mile round-trip hike to Hen Wallow Falls, one of the park's highest waterfalls at 95 feet tall, is moderate and extremely popular. Sutton Ridge Overlook and its impressive views are accessible from the Lower Mt. Cammerer Trail. It's 2.5 miles out and back.

A 6-mile section of Foothills Parkway between Cosby and I-40 provides stellar views of the majestic Smokies and is well worth the drive.

Mileage from Gatlinburg—20
from Townsend—40
from Cherokee—53

2. Middle Prong

Highlights: scenic drive, hiking trails, waterfalls

This small area of Great Smoky Mountains National Park features a scenic road that is open year-round but may close periodically due to winter road conditions.

From Laurel Creek Road, Tremont Road follows the lovely Middle Prong of Little River and transitions to a gravel road. Continuing on the gravel road for three miles to its end makes a beautiful streamside drive. The road traces the path of a railroad used by the lumber company operating in this area from 1926 to 1939. At the road's end, an easy walk across a footbridge and up Middle Prong Trail leads to a cascade where benches provide a relaxing vantage point.

Mileage from Townsend—9
from Gatlinburg—26
from Cherokee—55

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. Bicyclists can take advantage of one of the few park trails where bikes 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.

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

4. Smokemont

Highlights: camping, historic church

Open year-round, Smokemont Campground 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.

Bradley Fork–Smokemont Loop (6.1 miles) is a strenuous route featuring the waters of Bradley Fork and a historic cemetery. You can start the trail near campground D Loop. Smokemont Nature Trail is a .75-mile introduction to the area.

Built in 1896, the Smokemont 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. Old Elkmont Town

Highlights: historic buildings, walking trails, camping

The Elkmont area was once a logging boomtown and a bustling enclave of summer vacation homes. Today, the National Park Service has restored the Appalachian Clubhouse, Spence Cabin and several other historic buildings that offer a glimpse into the summer resort era.

Elkmont also has a variety of easy-to-moderate hiking trails, including the Cucumber Gap loop (5.5 miles), Elkmont Nature Trail (0.8-mile round-trip), Jakes Creek Falls (3.2 miles round-trip) and Huskey Branch Falls (4.3 miles round-trip). Little River Trail makes a pleasant streamside stroll.

Because of the closure of Cades Cove for the Bote Mountain Tunnel repairs (see page 6), Elkmont campground remains open for campers this winter.

Mileage from Gatlinburg—7
from Townsend—15
from Cherokee—39

6. Look Rock

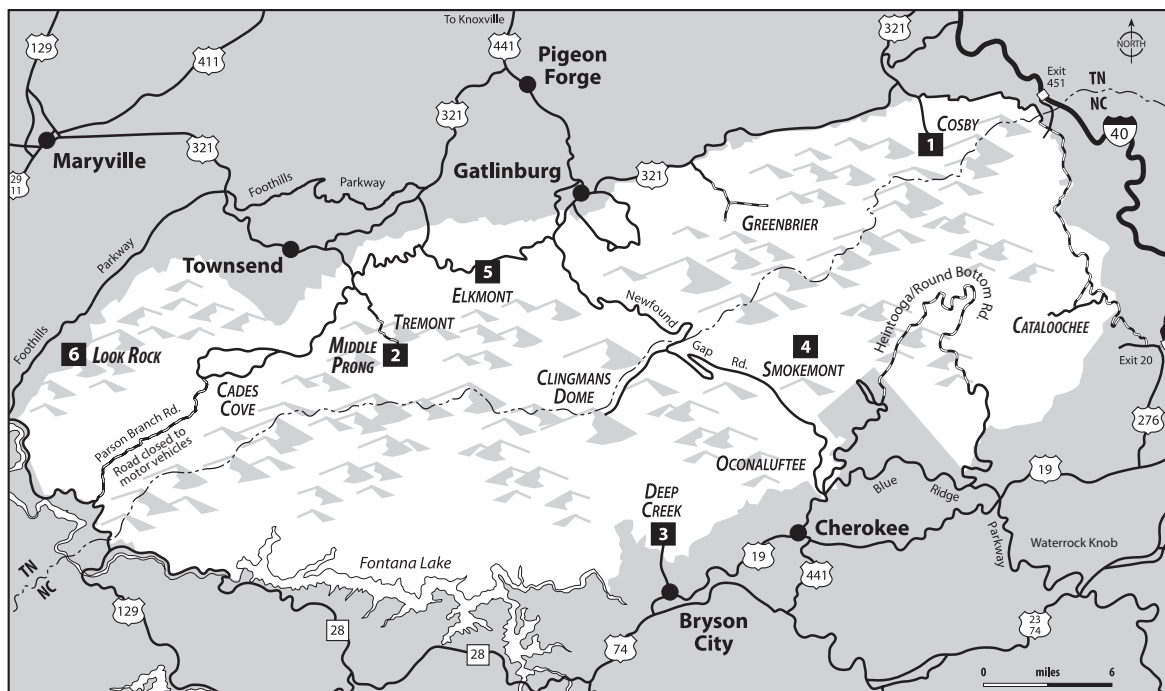
Highlights: mountain views, short hike, scenic drive, observation tower

Look Rock, named for a natural rock ledge, is the highest point on the western portion of Foothills Parkway. It is located between the Walland and Chilhowee entrances to the parkway. This area is subject to weather-related closures. Please check road conditions before travel.

A half-mile trail from the Look Rock parking area to the top of the ridge provides access to Look Rock Tower, with a 360-degree panoramic view of the Smokies and neighboring foothills. Thunderhead Mountain and Gregory Bald are among the landmarks that can be viewed from this vantage point. This location makes a particularly good spot for stargazing.

Nearby Look Rock Picnic Area has recently reopened with limited services after the first phase of a rehabilitation project.

Mileage from Townsend—16
from Gatlinburg—38
from Cherokee—68



Words with a Ranger

continued from page 1

are protected here. We use 'chat,' a mixture of sand and fine gravel, to improve traction on roadways and reduce the impact on the wildlife and other species that inhabit the park.

In order to get closed roads open again in the winter, it takes a combination of plowing, sanding and waiting for temperatures to rise to help with the melting process. If temperatures will be below freezing for several days, we monitor road conditions and add additional chat as needed. Before opening any road after a closure, our priority is to make sure it is safe for visitor travel—with the realization that some of our visitors have never driven in snow or ice before.

I am responsible for all of the paved and unpaved roadways in the North District, including Cades Cove and the Tennessee portion of Newfound Gap Road. This work involves roadside mowing and string trimming, litter removal, hazard tree removal, roadway and shoulder repairs, road signage, clearing rock slides and downed trees, snow and ice removal, maintenance of bridges and gates, and supervising the maintenance personnel who service and repair more than 200 vehicles and other equipment assigned to the park.

I am proud of all of the hard work my employees do and their dedication to take care of this natural resource that provides for visitor enjoyment. When you see crews working on or near the roads, please slow down and remember that they have loved ones who want to see them come home at night.

The Park Welcomes Lisa McInnis

Lisa McInnis is the park's new chief of resource management and science. She comes to the Smokies from the Natchez Trace Parkway in Tupelo, Mississippi, where she held a similar position. McInnis specializes in prairie restoration and fire ecology of southeastern forests.

"I became interested in public lands when I learned about the mission of the NPS during college," she told *Smokies Guide*. "I remember thinking it was one of the most noble missions I had ever heard—and I still think that to this day."

McInnis received a bachelor of arts degree in biology from Centenary College, a master of science in biology from Louisiana Tech University and a master of business administration from Mississippi

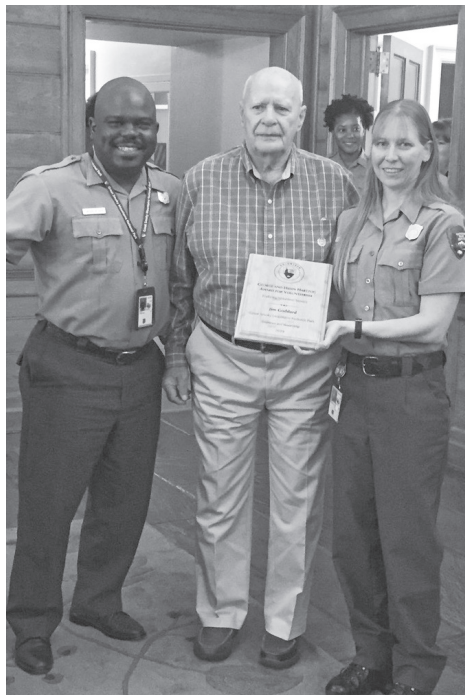
State. She got her PhD in forestry with a fire ecology emphasis from Stephen F. Austin State University.

"As an undergraduate, I took a botany class and began to learn about the inter-relationships between plants and fire, and I was blown away," she said. "I knew then that I wanted to learn more."

In school, McInnis said she didn't fully appreciate the challenges land managers face in a park setting. "We are dealing with critical environmental issues such as air and water quality, impacts to soils and vegetation, and the detrimental effects of nonnative animals, plants and diseases on natural and cultural resources," she said. "Using the best available science to guide management decisions represents an ongoing challenge for land managers."



Lisa McInnis is Great Smoky Mountains National Park's new chief of resource management. Image courtesy of NPS



Great Smoky Mountains National Park's Superintendent Cassius Cash (left) and Backcountry Management Specialist Christine Hoyer (right) present Jim Goddard (center) with his Hartzog Award. Image courtesy of NPS

Volunteer Jim Goddard Receives Regional Recognition

Dedicated park volunteer Jim Goddard is the recipient of the National Park Service Southeast Regional Hartzog Award for Enduring Service, a recognition of the significant skills, talent and time he has shared with the park for more than two decades.

"Jim has provided a tremendous service to the visitors of the Smokies," said Superintendent Cassius Cash. "He has been instrumental in ensuring that visitors are able to safely navigate the park trail system and in the preservation of the park's cultural history. His legacy will live on for generations to come, and it is an honor to recognize him for his contributions."

Goddard has served continuously as a Volunteer-In-Park (VIP) for more than 23 years. In addition to creating the iconic wooden trail signage that marks the Smokies' 850 miles of backcountry trails, he has performed trail maintenance and helped restore and preserve fragile cul-

tural resources. Goddard's craftsmanship has been applied to one-of-a-kind replicas of church benches, school desks and tub mills. He has continued to contribute to the park community and visitor experience by helping to plan, coordinate and facilitate popular special events. Goddard was an ambassador for the 75th anniversary of Great Smoky Mountains National Park and for the National Park Service centennial celebration.

Great Smoky Mountains National Park recognizes three additional VIPs for their outstanding service contributions: Clyde and Deborah Whitaker for their work as campground hosts at Cosby, Elkmont and Cades Cove; and Janie Bitner for serving as inventory and monitoring assistant at Twin Creeks. The park has well over 2,800 volunteers who perform a wide variety of important work and provide valuable service to the park and its visitors.

Winter in the Mountains Brings Beauty, Snow and Ice

Exploring the park this season is a delight made possible by Smokies road crews

continued from page 1

Responding to winter's challenges is a big part of that.”

For current park road conditions call 865.436.1200 or follow Smokies-RoadsNPS on Twitter.



CADES COVE CLOSED

January 2 at 8 p.m.–February 29, 2020

The road leading in to Cades Cove will be closed for part of this winter. Crews will be working to repair the Bote Mountain Tunnel, an iconic passageway on Laurel Creek Road that provides the only vehicle access to this part of the park. The road will be closed to all motorists, cyclists and pedestrians starting just beyond Tremont Road. The full closure is necessary to allow for the repair of the internal drainage system in the walls and ceilings of the 121-foot-long tunnel. Crews will enclose and heat the tunnel, allowing temperature-sensitive repairs to be conducted during this time. Intermittent single-lane closures will occur between March 1 and June 15 to complete the tunnel repairs and repave the tunnel area.

Due to this roadwork, Cades Cove Campground will be closed December 30, 2019, through March 5, 2020. Elkmont and Smokemont campgrounds will remain open to accommodate winter campers.

Bote Mountain Tunnel was constructed in 1948 and has not had any significant rehabilitation work since. Without these important repairs, leaks could result in a compromised structure and ice hazards during the winter months.

Bote Mountain Tunnel image by Bill Lea



Salt brine and chemicals are not used on roads within the park. These traditional treatments can attract wildlife that may ingest these substances because they think they are natural salt. Animals can become sick and even die as a result. Such treatments can damage vegetation and streams near the road as well. So, instead, the park uses a mixture of sand and gravel to reduce the effects on the surrounding environment.

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 gently when you need to slow down.



A warm winter day at lower elevations can be a snowy day high in the mountains. Newfound Gap, the highest point on Newfound Gap Road (U.S. 441) is frequently 10–15° cooler than Cherokee or Gatlinburg. Higher elevations also receive more precipitation—sometimes an annual total of five feet or more of snow. These challenging weather conditions make road closures necessary until the park's road crews can clear them. *Images by Bill Lea except for snow plow, courtesy of NPS.*

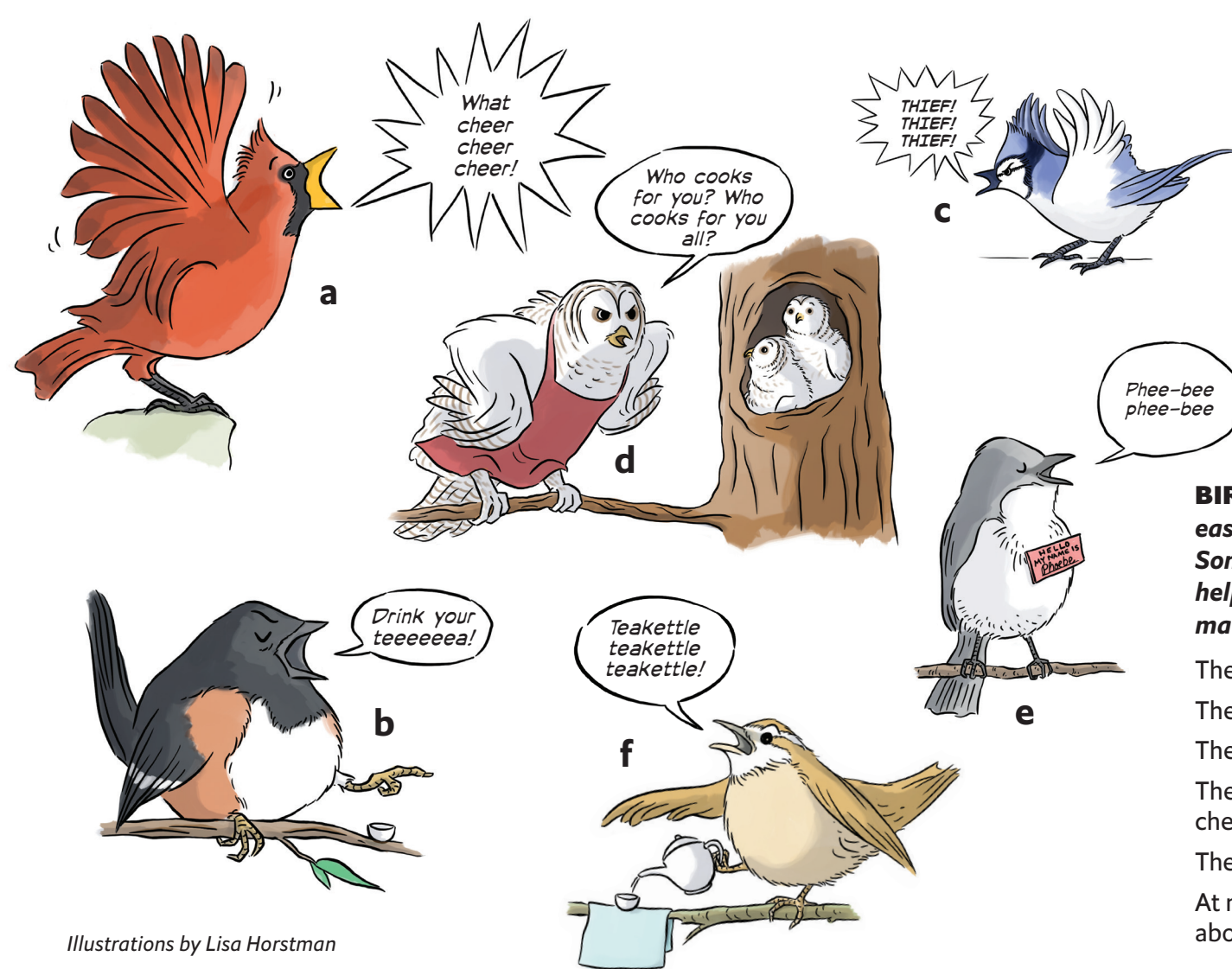




MATCHING!

BIRDS Many birds in the forest are most easily identified by the songs they sing. Some people make up word phrases to help them remember the songs. Can you match each bird to the bird song?

- The **Blue Jay** thinks he's been robbed: ___
- The **Carolina Wren** likes to make tea: ___
- The **Eastern Towhee** is bossy about tea: ___
- The **Northern Cardinal** is a bit of a cheerleader: ___
- The **Eastern Phoebe** says her own name: ___
- At night, the **Barred Owl** asks this question about food preparation: ___

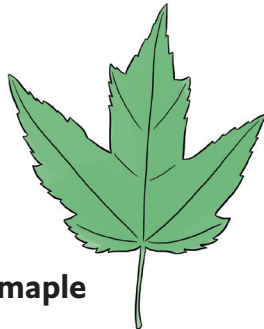


Illustrations by Lisa Horstman

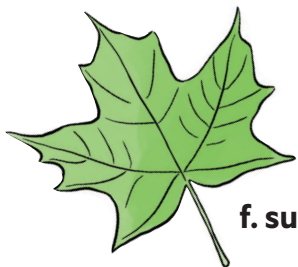
d. sycamore



a. red maple



b. dog hobble



f. sugar maple



e. dogwood

c. white oak



TREE LEAVES Match the drawing of the leaf with the tree (and clue).

- You can make maple sugar from this tree: ___
- This tree has tiny red flowers in early spring and its leaves turn bright red in autumn: ___
- The seeds of this tree are called acorns: ___
- The trunk of this tree loses some of its bark and looks kind of sick: ___
- This tree has bark, but doesn't bite: ___
- Hunting dogs are said to have a hard time running through masses of this shrub: ___

ANSWERS BIRDS: c, f, b, a, e, d TREELEAVES: f, a, c, d, e, b

Be Aware of closures

Cades Cove closed Jan 2. at 8 p.m. – Feb. 29, 2020

In addition to regular seasonal closures, park visitors should be aware of upcoming work that will prevent access to Cades Cove. This closure also affects park service access and assistance to hikers in this area.

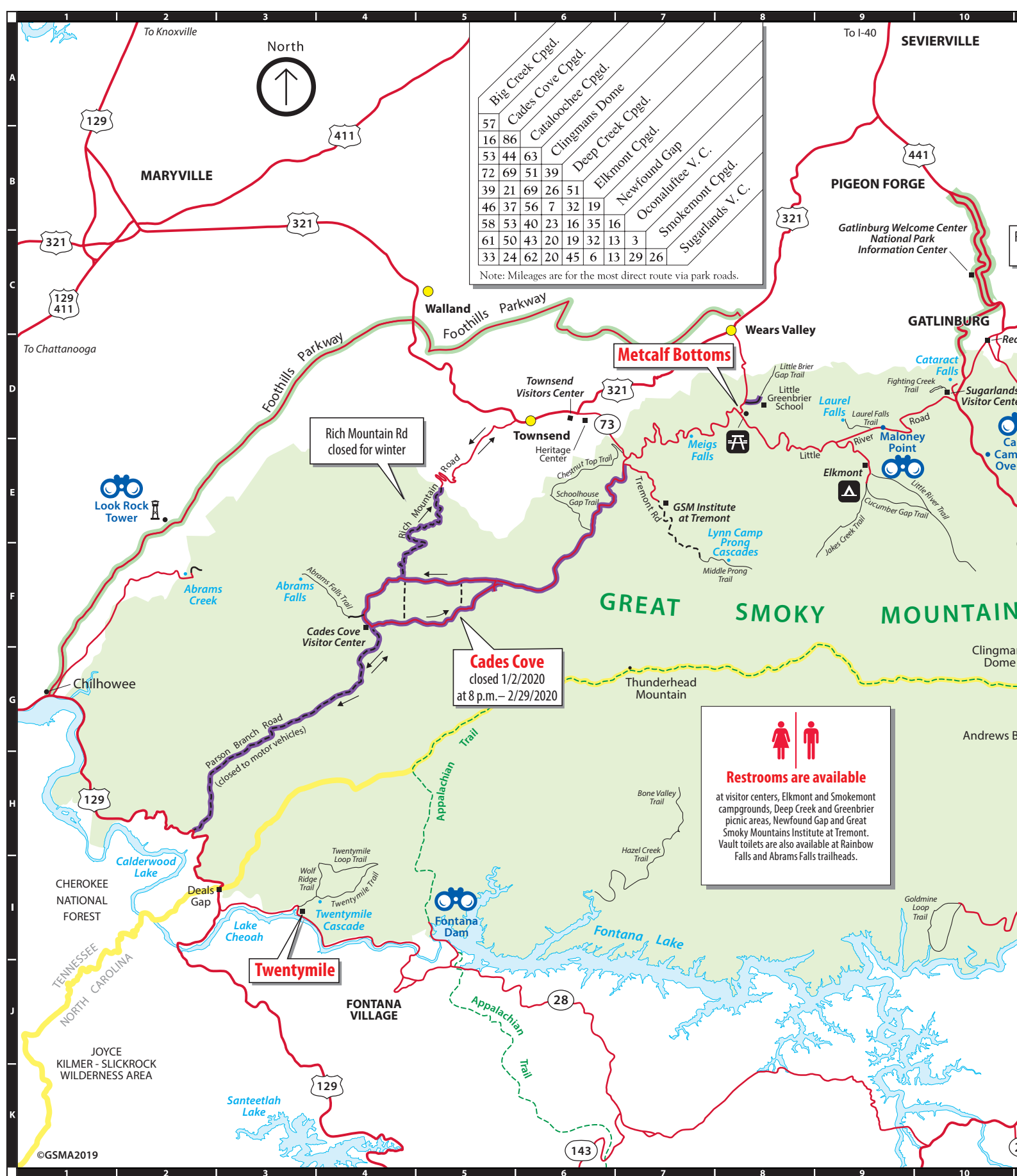
Laurel Creek Road leading to Cades Cove will be closed to all traffic from January 2 at 8 p.m. through February 29, 2020, to repair the Bote Mountain Tunnel. The tunnel was constructed in 1948 and has not had any significant rehabilitation work since. The work will involve replacing nine draining structures within the tunnel wall, patching the concrete liner, replacing the under-drain, and sealing concrete cracks. Repaving will be completed at a later date. See page 6 for more information.

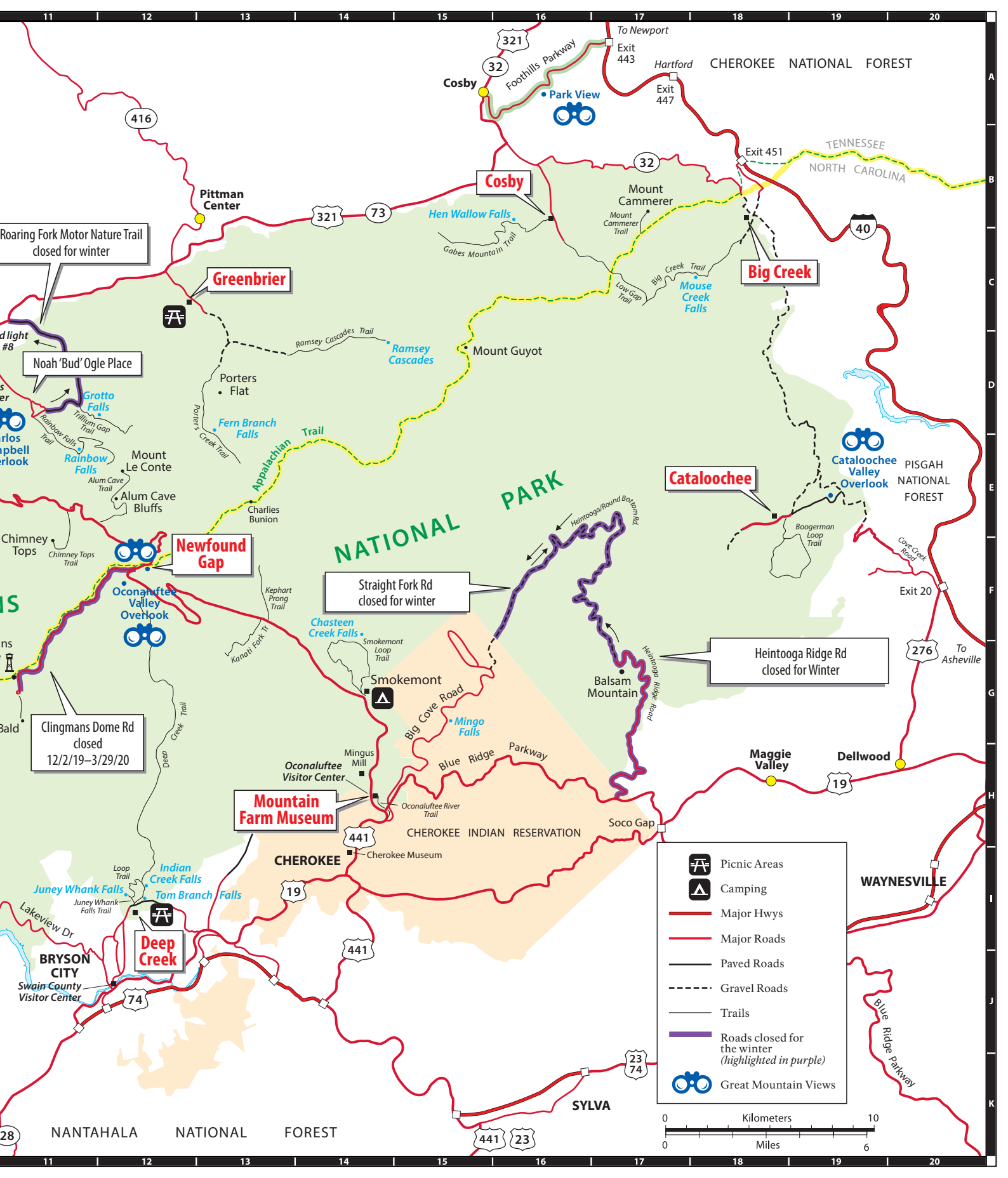
Roads: Note that all park roads, including Newfound Gap Road (U.S. 441), may close temporarily for snow or other inclement weather at any time.

Many secondary and higher elevation park roads are closed to motor vehicles in winter. These include: Clingmans Dome Road, Forge Creek Road (closes December 31), Heintooga/Round Bottom Road, Heintooga Ridge Road, Little Greenbrier Road, Rich Mountain Road, Roaring Fork Motor Nature Trail, and Straight Fork Road. Parson Branch Road is closed indefinitely due to hazardous trees.

Hiking Trails: Hiking trails are open in winter. However, some trailheads will be inaccessible to motor vehicles because of road closures. Walking on seasonally closed roads is permitted unless snow plowing or construction work is underway.

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





Roaring Fork Motor Nature Trail closed for winter

Straight Fork Rd closed for winter

Heintooga Ridge Rd closed for Winter

Clingmans Dome Rd closed
12/2/19-3/29/20

	Picnic Areas
	Camping
	Major Hwys
	Major Roads
	Paved Roads
	Gravel Roads
	Trails
	Roads closed for the winter (highlighted in purple)
	Great Mountain Views



Winter Wildlife Watching: Not (Just) for the Birds

Colder months in the Smokies offer opportunities to contribute to valuable citizen science

Right: The unmistakable Blue Heron can be seen year-round near waterways in the park. Below: The Yellow-rumped Warbler is one songbird that spends its winters in the park. *Images by Warren Lynn.* Bottom: The Eastern Screech Owl stays warm in winter by hunkering down in tree hollows. *Image by Joanne Redwood*



After Great Smoky Mountains National Park's black bears have ambled off to their winter rest and most wildflowers have long since wilted, many park visitors wonder what's left to see out on the landscape. The answer: more than you'd think! In fact, the park serves as a valuable "rest stop" for a number of migrating birds, as well as a winter home for about 60 species. Every year, National Audubon Society's Annual Christmas Bird Count includes sites in GSMNP, like Cades Cove and the Gatlinburg area. The count provides important data for studying habitat change and ultimately supports long-term bird conservation. For more information on how you can get involved, visit christmasbirdcount.org.

Birds aren't the only animals still visible after the leaves fall. White-tailed deer undergo their rut (mating season) from October through January. Even mammals that hibernate, such as the eastern chipmunk, are sometimes active on warmer days.

Another citizen science initiative, Discover Life in America's SnapIt and MapIt, aims to track the activity of less-documented species in the park. It's easy to contribute: the free iNaturalist app will allow you to snap a photo, identify the species in question (or make an educated guess for you), and upload the observation to a database. You can find more detailed instructions, as well as a list of possible winter sightings, on the following page.

Species SnapIt and MapIt

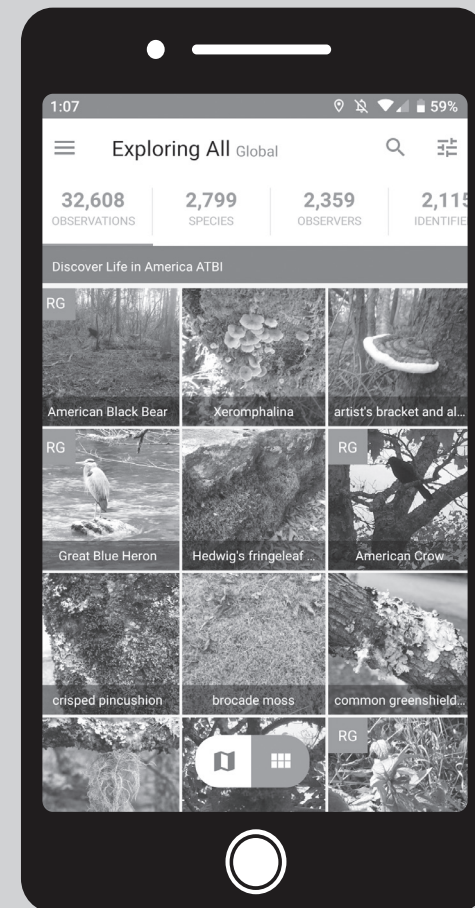
Cataloging the 20,000 (and counting) species of Great Smoky Mountains National Park is no easy feat, but that's the goal of the All Taxa Biodiversity Inventory, a project managed by park partner Discover Life in America. Fortunately, the advent of smartphone apps allows everyday park visitors to both figure out *What was that thing I saw on my hike?* and submit their observations to pool with other users' data. Collectively, these observations allow park biologists to better understand the habitats of these species and decide where their conservation efforts will have the greatest effect. Want to help out? Here's how:

A Few SnapIt & MapIt Priorities:

- Mallard (duck)
- Eastern Screech Owl
- American Woodcock
- Yellow-rumped Warbler
- Mourning cloak butterfly
- Great Blue Heron
- Nine-banded armadillo
- Eastern chipmunk

- 1. Download the iNaturalist app on your smart device (App Store or Google Play).**
- 2. In the app, go to Menu > Guides and search "snapit." The guide lists species of importance at the moment, with photos and descriptions (like a digital field guide).**
- 3. Take a hike in the park! Observations from North Carolina are especially needed.**
- 4. In the app, go to Menu > New observation and upload your photo(s). Tapping "What did I see?" will allow the app to identify the specimen (data connection required). Make sure location services are enabled, and under "Project," search for "atbi."**

Visit dlia.org/snapit-mapit for more tips and information.



Be an Otter Spotter!

Winter's frigid temperatures mean the occasional freezing of the park's mountain streams—excellent opportunities to see river otters, animals that tend to spend more time in the water than out of it. Reintroduced to the park in the late 1980s, otters are elusive in nature, and more data is needed to understand their distribution in the park. Following the instructions above, you can join Great Smoky Mountains Institute at Tremont's "Otter Spotter" iNaturalist project to report any sightings or signs (tracks, scat) of otters.

Image by Barta IV



State of the Park 2019

AIR QUALITY



Good news

Ozone pollution, acid deposition, particulate matter and regional haze levels at the park have all improved dramatically since the late 1990s thanks to cleaner power plants and motor vehicles.

The entire park and nearby cities (Knoxville and Asheville) are meeting all federal air quality standards for public health and welfare.

Visibility (as visual range) on the haziest days has improved from nine miles in the late 1990s to 44 miles in 2017.



Bad news

Because of sulfur and nitrogen air pollution, park rainfall is five times more acidic than natural rainfall, causing some park streams to become too acidic to meet Clean Water Act standards.

On a few days each year, ground-level ozone pollution and particulate matter can make air in the park unhealthy to breathe for park visitors and staff. This is also impacting streams, soils, vegetation and ecosystems.

HISTORIC PRESERVATION



Good news

The park's historic preservation crew continued work on Elkmont area cabins in 2019. This year staff focused on the Swan, Higdon and Sneed Cabins.

Work began on the Noah "Bud" Ogle Cabin that includes repairs to the damaged chimney as well as addressing drainage around the cabin foundation.

Resource management and science staff have developed an interdisciplinary preservation program for historic cemeteries and began work at test sites in late 2019.



Bad news

The park's cabins, churches, barns and historic rock walls are being permanently damaged by vandals carving or writing their names on them. If you witness vandalism taking place, please call 865.436.1230 to report it.

PLANT LIFE



Good news

Balsam woolly adelgid densities affecting Fraser fir remain very low at monitor sites, and many areas of fir forests show robust regeneration already producing cones.

Outstanding old-growth ash trees have been treated for emerald ash borer as well as hundreds of trees in campgrounds, picnic areas and roadsides.

The Tennessee Stream Mitigation Program partnered with the park to restore Chilogate Branch near Chilhowee Lake, repairing stream diversions and wetlands to create excellent new habitat.



Bad news

The disease known as laurel wilt has been documented severely impacting sassafras in upper central Tennessee, and the disease is likely to spread to the park area within several years. Loss of sassafras and related species will impact insects, birds and many mammals that eat the fruit and other parts of the plants.

Delayed mortality is apparent now in many maple, birch and beech trees that originally survived the 2016 Chimney Tops 2 fire but are now breaking and falling due to trunk damage and subsequent decay.

Kudzu is spreading into the park from boundary-adjacent private lands, especially in fire-damaged areas where abundant sunlight and reduced competition contribute to its dominance.

WILDLIFE



Good news

A collaborative project to accurately estimate elk populations is off to a good start with GPS radio collars deployed throughout the region and the first round of sampling to start this winter.

The food storage cables at back-country campsites and shelters have proven to be very successful at keeping bears and people-food apart.

Wildlife staff are working with bear biologists throughout the Southeast to educate people on how to live responsibly with black bears. Check it out at bearwise.org.



Bad news

Although elk populations continue to expand, several adult elk have died this year as a result of vehicle collisions. This should serve as a reminder to obey park speed limits and keep alert for wildlife along the roadways at all times.

A recent study determined that more than 90 percent of male black bears and 50 percent of female bears traveled outside the park into areas with unsecured garbage and other human-related food.

Wild hogs in the park continue to test positive for pseudorabies, a significant disease for the domestic swine industry.

White-nose syndrome has decimated a number of bat populations in the park. The fungal disease affects these bats while they are hibernating in caves.

VISITOR EXPERIENCE



Good news

Little River Road received a much-needed pavement preservation treatment from Sugarlands Visitor Center all the way to the Townsend Wye, making this driving experience smoother and safer for all.

Restoration work on the enormously popular Trillium Gap Trail to Mt. Le Conte is underway and slated to be completed by the end of 2020. The park's Trails Forever crew and many volunteers are behind the successful project.



Bad news

Increasing congestion at some of the more popular destinations for hikers and motorists created some challenges for visitors including long wait times for restrooms, lack of available parking and heavy traffic. To help prevent congestion, visitors are reminded to consider less-traveled trails or roads and mid-week, early mornings for their visits. In 2020, park management will be asking visitors and residents for ideas in helping provide better visitor experiences.

STREAM LIFE



Good news

Recent water quality monitoring indicates moderate improvements in stream acidity in mid- to low-elevation streams. These improvements are attributed to reductions in acid rain (from power plants and factories) in the last decade.

Trout populations in the park are healthy, despite the significant drought of 2016. All park streams are now open to fishing and harvest for the first time since the park was established in 1934.

Monitoring of three species of endangered and threatened fish indicates there are now viable reproducing populations in the park. Banded sculpin and greenside darters recently introduced into lower Abrams Creek are thriving and should help native mussel reproduction over time.

Aquatic insect populations, which are also good indicators of stream health, generally remained diverse and abundant according to 2019 sampling in the park.



Bad news

Twelve park streams (41 miles) remain officially listed as impaired by acid deposition. Water quality improvements are occurring very slowly in high-elevation streams because soils there are saturated with decades of acids from airborne pollutants. Research indicates it will take more than 60 years for most of the park's sensitive streams to recover.



Great Smoky Mountains Association

Great Smoky Mountains Association has supported the educational, scientific and historical efforts of the National Park Service through cash donations and in-kind services since its launch in 1953.



By the end of 2019, the association will have provided more than \$44 million in assistance that includes saving hemlock trees, living history demonstrations, environmental education programs, historic preservation, and salaries for wildlife personnel.

Become an association member today and receive a number of benefits, including information about special events in the park and issues affecting the Smokies. Members also:

- receive a subscription to the semi-annual, full-color magazine *Smokies Life*
- get digital access to the award-winning quarterly park newspaper, *Smokies Guide*, and the association's e-newsletter, *The Cub Report*
- earn 15–20 percent discounts on books, music, gifts and other NPS-approved products sold at park visitor centers and via GSMA's web store SmokiesInformation.org
- learn about exclusive GSMA group hikes, backpacking excursions and educational sessions led by experts on natural and cultural history in Great Smoky Mountains National Park. Check out GSMA's Branch Out events at SmokiesInformation.org/events.

Join today using the coupon to the right, visit SmokiesInformation.org, or call us at 888.898.9102 x222. Memberships start at just \$35 per year.



Smoky Mountain Field School

An exciting variety of adventures awaits

adults who long to get out and explore the park accompanied by expert guides. Field School programs are offered by University of Tennessee Non-Credit Programs and GSMNP and include workshops on black bear and other wildlife, edible plants, nature photography, animal tracking, salamanders and mountain cooking. One-day programs start at as little as \$69. Contact: 865.974.0150 or visit smfs.utk.edu.

Great Smoky Mountains Institute at Tremont

Tremont is celebrating 50 years of providing powerful residential environmental education programs in Great Smoky Mountains National Park.

GSMIT hosts more than 5,000 students and adults annually, opening their eyes to the wonder and beauty of the natural world through school programs, teacher training, and adult enrichment programs such as our Southern Appalachian Naturalist Certification courses and photography workshops. It achieves its mission through residential programs, advocacy for outdoor learning, community engagement, and research that complements its learning laboratory.

Tremont also offers a variety of summer youth and family camps in the national park lasting from two to 11 days. All programs include meals, lodging and professional instruction: Firefly Camp (ages 4–9), Discovery Camp (ages 9–12), Wilderness Adventure Trek (ages 13–17), Girls in Science (ages 12–15), and Teen High Adventure (ages 13–17). Visit gsmit.org or call 865.448.6709 to learn more.



Discover Life in America
Discover Life in America helps

GREAT SMOKY MOUNTAINS INSTITUTE AT TREMONT

Great Smoky Mountains National Park understand and conserve its incredible abundance of biodiversity.

DLiA's flagship project, the All Taxa Biodiversity Inventory, aims to catalogue all the plants, animals and other life in the park. DLiA has worked with leading biologists from around the globe for more than 20 years to accomplish this monumental task. In that time, more than 20,000 species have been recorded in the park, including more than 1,000 that are new to science (first discovered in the park)!

In addition to managing the ATBI, DLiA works to educate the public on the importance of biodiversity in our lives and to engage volunteers to become 'citizen scientists'.

DLiA is supported by donations from individuals and institutions as well as funding from other nonprofit partners of Great Smoky Mountains National Park. Learn more at dlia.org or by calling 865.430.4757.

Friends of the Smokies

Friends of the Smokies is an official nonprofit partner of the National Park Service and Great Smoky Mountains National Park that helps to raise funds and public awareness and provide volunteers for park projects.

Since 1993, Friends of the Smokies has raised more than \$66 million to

support critical park projects and programs including:

- Management and research of bears, elk, native brook trout and other wildlife
- Intensive rehabilitation projects on the park's most impacted hiking trails like Alum Cave, Chimney Tops and Rainbow Falls
- Hands-on, curriculum-based environmental education for schoolchildren in Western North Carolina and East Tennessee
- Facilities and improvements to maintain a world-class visitor experience
- Historic preservation of cabins, churches and mills in Cades Cove and Cataloochee Valley

Your support of Friends of the Smokies makes these projects and much more possible. Join today, purchase a specialty license plate at BearPlate.org, or join FOTS for one of its special events like the Evergreen Ball or Smokies Stomp Barn Party. Your donations help preserve and protect Great Smoky Mountains National Park for generations to come. For more information, visit FriendsOfTheSmokies.org or call toll-free 800.845.5665.



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

Winter Trekking: The Essentials of Preparation

Tips from the insiders on how to treat the park and stay safe at the same time

Illustration by Emma DuFort

PARK

Etiquette

A: First and foremost, never hike alone or split up from your partner or party. Remain on established trails. Carry adequate food and, if camping, stove and fuel—and budget an extra day of food and fuel in case you become stranded. Carry a pack cover, rain jacket and pants, multiple layers of insulating synthetic (non-cotton) clothing and a headlamp or other light source and, when planning to camp, a shelter and synthetic-fill sleeping bag (down is useless when wet).

Q: *Some folks consider time spent in the woods as an opportunity to unplug.*

cell service. Carry a park map and compass and track your location on the map as you progress. Knowing where you are can expedite rescue. Share your planned itinerary with friends or family members and advise them to call the backcountry office (865.436.1297) if you fail to exit the park on schedule.

Q: *What are some other items you should have along to ensure safety when camping?*

A: It's a good idea to carry a filter or other purification system for producing safe drinking water. I also like to carry

Old Settlers Trail with Great Smoky Mountains Association's archivist and librarian Mike Aday. During our last stream crossing, I saw Mike slip and plunge feet-first into the water, and his awkward efforts to self-extract provided the first clue that something was seriously wrong. As he pulled himself up onto the flat plane of a card table-sized rock, it became obvious that his leg was broken.

Q: *Based on your experience, what should hikers do in case of an emergency with an injury?*

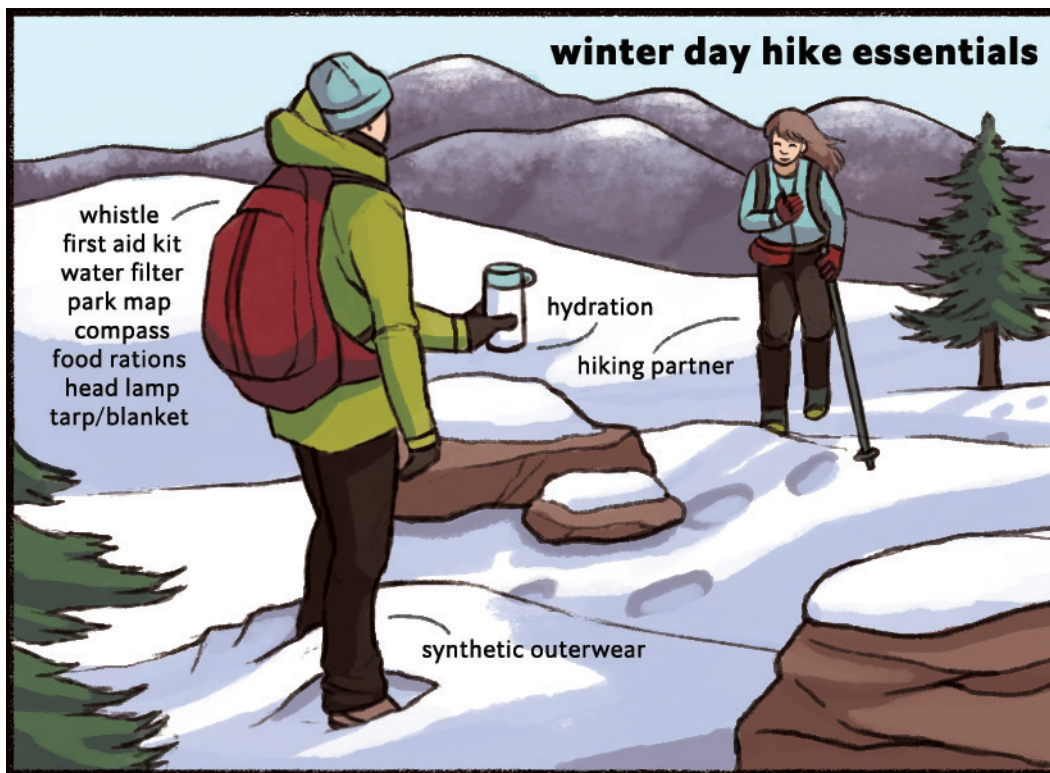
A: If you can acquire a cell phone signal, call emergency dispatch (865.436.9171) or dial 911.

Remain with the injured party until help arrives. Remain calm and focus on actions that will help speed the rescue and ensure the comfort and survival of the victim. Keep the victim warm and hydrated.

Avoid liquids that contain alcohol or caffeine. Issue a series of three spaced blasts on the 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. Finally, use what basic first-aid techniques you know, but do not attempt invasive intervention unless you are medically trained.

To read more about mishaps and misdeeds in the park, pick up Into the Mist in any Smokies visitor center bookstore, where you can also read about the outcome of David and Mike's adventure in the Fall 2018 issue of Smokies Life magazine.

All backcountry campsites require permits. Visit the park's backcountry camping page to acquire a permit and review rules and regulations [nps.gov/grsm/planyourvisit/backcountry-camping.htm](https://www.nps.gov/grsm/planyourvisit/backcountry-camping.htm).



But should they carry their cell phone just in case?

A: Yes, I recommend someone on the trek pack a fully charged cell phone and enter the park's emergency dispatch number (865.436.9171) before heading out. But be aware that much of the park is out of range of

an emergency whistle and basic first-aid kit, because you never know when these will come in handy.

Q: *You had an experience not long ago where you did need these extra emergency items, right? Can you tell us about that?*

A: On April 25, 2018, I was on an overnight backpacking trip on the

When it comes to getting out on the trails during winter, adequate planning and preparation greatly increase the chances for a safe and successful adventure. No one knows this better than AT thru hiker and *Smokies Life* contributor David Brill, who authored the GSMA title *Into the Mist: Tales of Death and Disaster, Mishaps and Misdeeds, Misfortune and Mayhem in Great Smoky Mountains National Park*.

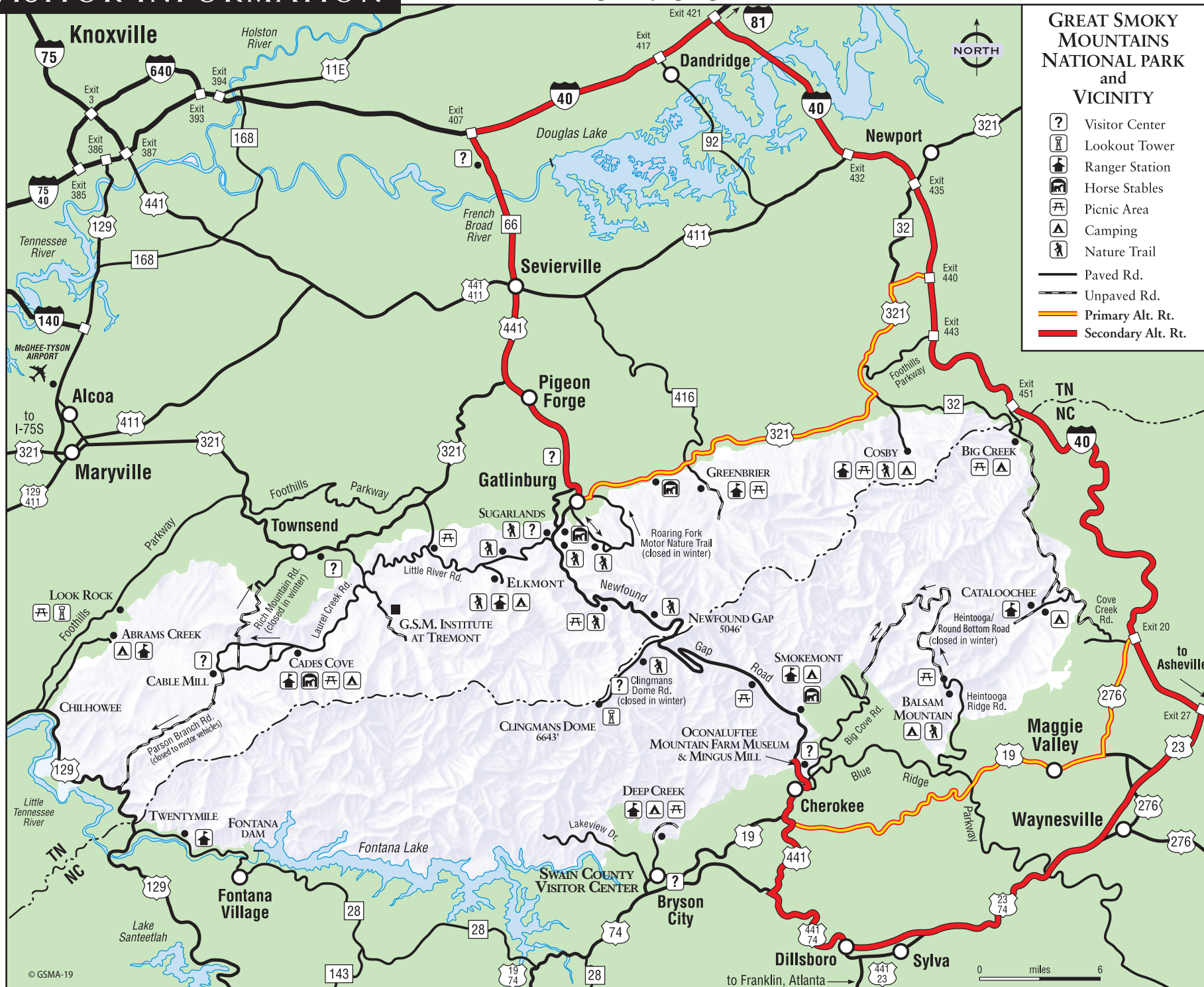
Q: *What inspired you to write a book about death and disaster in the Smokies?*

A: I wrote *Into the Mist* to educate and inform visitors with the hopes of preventing future deaths. The opening chapter recounts the death from hypothermia of John Mink, a graduate student from Indiana who entered the park's backcountry in February 1984 and hiked into the teeth of a blizzard. The chapter retraces the actions that proved decisive in the outcome, including the decision to hike alone in winter, failure to turn around when snow began to accumulate, failure to pack a shelter, and the choice to wear cotton jeans and down parka, both of which proved vulnerable to the wet snow.

Q: *With that gruesome scenario in mind, what are some of the basic guidelines hikers should follow when planning any winter trip?*

VISITOR INFORMATION

For more information, go to nps.gov/grsm



GREAT SMOKY MOUNTAINS NATIONAL PARK and VICINITY

- Visitor Center
- Lookout Tower
- Ranger Station
- Horse Stables
- Picnic Area
- Camping
- Nature Trail
- Paved Rd.
- Unpaved Rd.
- Primary Alt. Rt.
- Secondary Alt. Rt.

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 x226
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
U.S. 321, Maryville, TN

Haywood County

828.456.7311
Waynesville, NC
Swain County
828.488.2155
Bryson City, NC

All-access

Restrooms at park visitor centers (Cades Cove, Oconaluftee and Sugarlands) 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.