Opossums are marsupials that nurse their young in an abdominal pouch. It takes about three months for the joeys to be weaned.

Spring Brings Out Baby Animals in the Smokies

What is getting born this spring in the Great Smoky Mountains? Bear cubs were born in their dens during mid-winter; they usually emerge with mom sometime in April or early May. Fresh from the den, cubs are tiny, weighing only four to seven pounds. By fall they will grow to 30-50 pounds. Other charismatic Smokies animals, white-tailed deer and elk, breed in fall but don’t drop their fawns and calves until June.

The following is an approximate birthing schedule for Smokies wildlife born in the spring.

<table>
<thead>
<tr>
<th>ANIMAL</th>
<th>WHEN BORN</th>
<th>OFFSPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia Opossum</td>
<td>March-May</td>
<td>4-15 Joeys</td>
</tr>
<tr>
<td>Gray Fox</td>
<td>March-April</td>
<td>3-4 Pups</td>
</tr>
<tr>
<td>Barred Owl</td>
<td>March-May</td>
<td>2-4 Chicks</td>
</tr>
<tr>
<td>Long-tailed Weasel</td>
<td>April-May</td>
<td>4-5 Pups</td>
</tr>
<tr>
<td>Mink</td>
<td>April-May</td>
<td>1-10 Kits</td>
</tr>
<tr>
<td>Coyote</td>
<td>April-May</td>
<td>5-10 Pups</td>
</tr>
<tr>
<td>River Otter</td>
<td>April-May</td>
<td>2-3 Pups</td>
</tr>
<tr>
<td>Striped Skunk</td>
<td>April-May</td>
<td>5-7 Kits</td>
</tr>
<tr>
<td>Groundhog</td>
<td>April-May</td>
<td>2-6 Kits</td>
</tr>
<tr>
<td>Louisiana Waterthrush</td>
<td>May</td>
<td>3-4 Chicks</td>
</tr>
<tr>
<td>Bobcat</td>
<td>May</td>
<td>2-3 Kittens</td>
</tr>
<tr>
<td>Southern Flying Squirrel</td>
<td>May</td>
<td>2-7 Pups</td>
</tr>
<tr>
<td>Beaver</td>
<td>May</td>
<td>1-6 Kits</td>
</tr>
</tbody>
</table>

Bluets start their bloom in May in the Great Smokies (see page 10).

Wildflower Auto Tours

Several roads in the national park provide good spring wildflower viewing from your car. See the map on pages 8-9 for more information. Please be safe and courteous by using pullouts along roadways to view wildflowers and wildlife.

LATE MARCH TO EARLY MAY

Little River Road—This paved, winding, and scenic 17 mile route runs between Sugarlands Visitor Center and the Townsend “Y” (near the Townsend entrance to the park). Plants in bloom include fringed phacelia, columbine, bloodroot, fire pink, red bud, flowering dogwood, wild geranium, yellow trillium, and white trillium.

Roaring Fork Motor Nature Trail (opens March 25)—What’s a “motor nature trail?” A hybrid between a trail and a road, or as former Superintendent Overly described it, “a nature trail for motorists.” This one starts outside Gatlinburg, at the end of Cherokee Orchard Road (see pages 8-9). The paved, steep, narrow, winding one-way road is 5 miles long. It offers motorists not only some of the best views of wildflowers in the park, but also access to historic grist mills, log homes, farmsteads, and waterfalls.

MID-TO LATE MAY

Clingmans Dome Road (opens April 1)—This seven-mile paved road runs through the Smoky Mountain high country from Newfound Gap to near the summit of Clingmans Dome. Plants in bloom include serviceberry, fire cherry, silverbell, fringed phacelia, trout-lily, thyme-leaved bluets, and spring-beauty.

Free Ranger-Guided Programs
Please see pages 12-13
smokies trip planner

to order maps and guides: www.SmokiesInformation.org

smokies guide

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

Publication dates are roughly four times per year by Great Smokies Guide, Spring 2016.

Smoky Mountains Association and Great Smoky Mountains National Park.

© 2016 Great Smoky Mountains Association

GSMA
P.O. Box 130
Gatlinburg, TN 37738

printed on recycled paper

nine campgrounds will be open in the national park this year.

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

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

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

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

The list below shows number of sites, elevations, fees, approximate 2016 operation dates, and maximum RV lengths. Dates are subject to change. Visit www.nps.gov/grsm for current information.

ABRAMS CREEK 16 sites, elev. 1,125’, $14, open May 27-Oct. 10, 12’ trailers
BALSAM MOUNTAIN 46 sites, elev. 5,310’, $14, open May 27-Oct. 10, 30’ RVs
BIG CREEK 12 sites, elev. 1,700’, $14, open April 8-Oct. 31, tents only
CADES COVE 159 sites, elev. 1,807’, $17-$20, open year-round, 35’-40’ RVs
CATALOOCHEE 27 sites, elev. 2,610’, $20, open March 25-Oct. 31, reservations required, 31’ RVs
COSBY 157 sites, elev. 2,459’, $14, April 8-Oct. 31, 25’ RVs
DEEP CREEK 92 sites, elev. 1,800’, $17, open April 8-Oct. 31, 26’ RVs
ELKMONT 220 sites, elev. 2,150’, $17-$23, open March 11-Nov. 27, 32’-35’ RVs
LOOK ROCK 12 sites, elev. 2,198’, $17-$20, open year-round, 35’-40’ RVs
LOUGHEED 11 sites, elev. 1,700’, $14, open April 8-Oct. 31, 12’ trailers
LOTUS 3 sites, elev. 1,800’, $14, open April 15-Oct. 10, 20’ RVs
LOOK ROCK 4 sites, elev. 1,800’, $14, open April 8-Oct. 31, 12’ trailers
MOUNTAIN 4 sites, elev. 1,700’, $14, open May 27-Oct. 10, 12’ trailers
PARSON BRANCH 27 sites, elev. 2,610’, $30, open year-round, 35’-40’ RVs
POORRIVER 2 sites, elev. 1,900’, $14, open April 8-Oct. 31, 12’ trailers
ROARING FORK 10 sites, elev. 1,450’, $20, open year-round, 14’ trailers
SMOKEMONT 142 sites, elev. 1,800’, $17-$23, open April 8-Oct. 31, 31’ RVs
TOWNSEND 3 sites, elev. 1,900’, $14, open April 8-Oct. 31, 12’ trailers
TREASURE MOUNTAIN 5 sites, elev. 1,125’, $14, open May 27-Oct. 10, 12’ trailers
UPPER CASHiers 8 sites, elev. 1,900’, $14, open April 8-Oct. 31, 12’ trailers
WILDWOOD 24 sites, elev. 2,610’, $20, open March 20-Oct. 31, reservations required, 31’ RVs
YIM 4 sites, elev. 1,700’, $14, open April 8-Oct. 31, 12’ trailers

Bicycling

Most park roads are too narrow and heavily traveled by automobiles for safe or enjoyable bicycling. However, Cades Cove Loop Road is an exception. This 11-mile, one-way, paved road provides bicyclists with excellent opportunities for viewing wildlife and historic sites. Helmets are required for persons age 16 and under and are strongly recommended for all bicyclists.

From May 11-Sept. 21, on Wednesday and Saturday mornings from sunrise to 12:00 p.m., only bicycles and pedestrians are allowed on Cades Cove Loop Road. Bicycles may be rented at the Cades Cove Campground store.

Pets in the Park

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

Road Openings

The following roads close for the winter. Listed below are the 2016 opening dates.

Roaring Fork—March 25
Clingmans Dome—April 1
Parson Branch—April 8
Balsam Mtn—May 27

Special Events

April 19-April 23
Spring Wildflower Pilgrimage: parkwide

May 21
Cosby in the Park: Cosby

June 18
Womens Work at Oconaluftee Mountain Farm Museum

Picnic Areas

Please see pages 8-9 for locations of picnic areas. Chimneys opens March 12, Collins Creek opens April 1, Cosby and Big Creek open April 8. Heintooga opens May 27. Look Rock is closed. All other picnic areas are open year-round. All have charcoal grills for cooking.

Visitor Centers

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

Other Services

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

Bicycle morning in Cades Cove. BILL LEA PHOTO

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

For information on lodging outside the park, call Bryson City 1-800-867-9246 Cherokee 1-828-788-0034 Fontana 1-800-849-2258 Gatlinburg 1-800-588-1817 Maggie Valley 1-800-624-4431 Pigeon Forge 1-855-716-6199 Sevierville 1-866-889-7415 Townsend 1-800-525-6834

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

Road openings

The following roads close for the winter. Listed below are the 2016 opening dates.

Roaring Fork—March 25
Clingmans Dome—April 1
Parson Branch—April 8
Balsam Mtn—May 27

Special events

April 19-April 23
Spring Wildflower Pilgrimage: parkwide

May 21
Cosby in the Park: Cosby

June 18
Womens Work at Oconaluftee Mountain Farm Museum

Picnic areas

Please see pages 8-9 for locations of picnic areas. Chimneys opens March 12, Collins Creek opens April 1, Cosby and Big Creek open April 8. Heintooga opens May 27. Look Rock is closed. All other picnic areas are open year-round. All have charcoal grills for cooking.

Visitor centers

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

Other services

There are no gas stations, showers, or restaurants in the national park. Mt. LeConte Lodge is the only lodging.
**Horseback Riding**

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

**Vertical Distances and Estimated Times**

<table>
<thead>
<tr>
<th>Distance</th>
<th>Driving Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cades Cove</td>
<td>9 miles (1/4 hour)</td>
</tr>
<tr>
<td>Newfound Gap</td>
<td>16 miles (1/2 hour)</td>
</tr>
<tr>
<td>Clingmans Dome</td>
<td>23 miles (1/4 hour)</td>
</tr>
<tr>
<td>Cataloochee</td>
<td>65 miles (2 hours)</td>
</tr>
<tr>
<td>Greenbrier Cove</td>
<td>6 miles (1/4 hour)</td>
</tr>
<tr>
<td>Deep Creek</td>
<td>48 miles (1/2 hours)</td>
</tr>
</tbody>
</table>

**Backcountry Camping in the Smokies**

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

1. Go online to view the park’s official trail map (www.nps.gov/grsm/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 www.smokiesinfo.org.

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

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

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

**Fishing**

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

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

**Backcountry Information**

Backcountry information is available in each park visitor center, two miles south of Gatlinburg on Newfound Gap Road (U.S. 441). (865) 436-1297.

**Reservations**

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

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

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

**Park Information**

For additional information, visit [www.nps.gov/grsm](http://www.nps.gov/grsm)
1872 Yellowstone National Park established.

1890 Yosemite National Park established.

1894 Poacher Ed Howell is nabbed skinning a dozen bison in Yellowstone. The story goes national and the Lacey Act is passed “to protect the birds and animals in Yellowstone.”

1899 Mount Rainier National Park established.

1900 Visitation to national parks hits 314,000.

1903 African-American Buffalo Soldiers ride into Yosemite and Sequoia national parks to drive out timber thieves and poachers, and to fight wildfires and build trails.

1905 Antiquities Act passes to protect Southwestern cultural sites from artifact looters. The Act allows presidents to create national monuments.

1915 Visitation to national parks hits 314,000.

1916 Congress and Woodrow Wilson pass the Organic Act creating the National Park Service whose job it is: “To conserve the scenery and the natural and historic objects and the wild life therein and...leave them unimpaired for the enjoyment of future generations.”

1919 Acadia, Zion, and Grand Canyon national parks established.

1921 Hot Springs designated national park.

1929 Arches and Grand Teton national monuments/parks established.

1933 Horace Albright convinces Franklin D. Roosevelt to allow the NPS to absorb all national battlefields into the park system. 200,000 Civilian Conservation Corps (CCC) enrollees report for duty.

1935 Great Smoky Mountains National Park established.

1940 Visitation to national parks tops 255 million.

1945 Visitation to national parks tops 281 million.

1950 Visitation to parks tops 32 million.

1956 NPS launches Mission 66, a ten-year program to improve park facilities to meet the surge in park visitation.

1963 The Leopold Report, which guides wildlife management in parks, is published.

1964 The Wilderness Act passes.

1965 Visitation to national parks tops 168 million.

1970 Visitation to national parks tops 168 million.

1972 Visitation to national parks tops 220 million.

1978 Badlands National Park established.


1985 Visitation to national parks tops 285 million.

1990 Visitation to parks tops 255 million.

1994 Death Valley and Joshua Tree national parks established.

1994 Congaree National Park established.

1995 Visitation to national parks tops 220 million.

2000 Visitation to national parks tops 285 million.

2010 Visitation to national parks tops 285 million.

2014 Visitation to national parks hits 293 million.

2016 National Park Service embarks on “second century of service.”
1956 NPS launches Mission 66, a ten-year program to improve park facilities to meet the surge in park visitation.

1950 Visitation to parks tops 32 million.

1956 The Wilderness Act passes.

1960 Visitation to parks tops 71 million.

1964 The Leopold Report, which guides wildlife management in parks, is published.

1970 Visitation to parks tops 168 million.

1978 Badlands National Park established.


1985 Visitation to parks tops 255 million.

1990 Visitation to parks tops 285 million.

1994 Death Valley and Joshua Tree national parks established.

1995 Visitation to parks tops 281 million.

2000 Visitation to national parks tops 293 million.

2003 Congaree National Park established.

2004 Great Sand Dunes National Park established.

2005 Visitation to national parks tops 293 million.

2009 National Park Service embarks on "second century of service."

1916 Congress and Woodrow Wilson pass the Organic Act creating the National Park Service whose job it is: "To conserve the scenery and the natural and historic objects and the wild life therein and…leave them unimpaired for the enjoyment of future generations."

2010 Visitation to parks tops 285 million.

2014 Visitation to national parks tops 293 million.

2016 National Park Service embarks on "second century of service."

Photo Credits: Great Smoky Mountains National Park cabin by Gary Wilson. Family hiking by David Luttrel. All others are NPS photos.
Q & A with the Superintendent

Cassius Cash, Superintendent of Great Smoky Mountains National Park

Q: The National Park Service turns 100 years old in 2016. What does that mean to you?

A: If we don’t create the next generation of national park users, advocates, and supporters, I think the work we’ve done in the first 100 years of the National Park Service will be in vain. You protect what you value. If you haven’t visited parks and public lands in your formative years, you run the risk of not knowing or caring about them.

As I get older, I realize I want to be doing something that lasts beyond me. At this point in history, with the Park Service turning 100, I want to tell my daughters that I left the Smokies a better place than when I found it. There’s a lot riding on this. I don’t want to be the one to let this go.

Q: What does the Second Century of the National Park Service look like?

A: When the National Park Service was created, the country was 50 percent urban. Now it’s 80 percent urban. The Park Service is a very traditional organization—and we honor those traditions. But we need to hand the NPS arrowhead over to the next generation and let each person define his or her own park experience.

We don’t want to try too hard to define what we think a park experience should be. Our millennials are very different, their values are very different. They approach the outdoors a lot differently.

That’s why “Find Your Park” is the theme of our Centennial. It’s an individual thing.

We’re looking at this as the right time to reach out to audiences that haven’t traditionally been park visitors, or park employees, for that matter.

Q: How are you going to celebrate the Centennial in the Smokies?

A: There are going to be some fun events like Smokies Centennial Challenge: Hike 100 where participants log their miles and earn a special reward. We especially want to involve families from nearby urban areas. And I plan on hiking 100 miles myself, split between the North Carolina and Tennessee sides of the park.

We’re also working with our partners on some beautiful publications commemorating the first 100 years. Plus we’re developing a lot of commemorative merchandise that will be featured in the visitor center stores and will benefit the Smokies and the whole park system.

Many Americans today grow up in cities and have only a limited exposure to wild places like the Great Smoky Mountains. Superintendent Cash and the National Park Service are especially enthusiastic about offering urban youth the opportunity to explore the great outdoors.
A Field Guide to Your National Park System

Across our nation, from northern Alaska to the Virgin Islands, from Acadia to Zion, the National Park Service is responsible for protecting 410* of America’s most beautiful natural areas and most significant historic places. Here is a sampler of the diversity of public lands that have been set aside and protected by the National Park Service “for the benefit and enjoyment of the people.”

**NATIONAL PARKS**
- Example: Grand Teton, Wyoming. Preserves the magnificent Grand Teton mountain range and the wildlife-rich valley of Jackson Hole.

**NATIONAL HISTORICAL PARKS**
- Example: Cumberland Gap, Kentucky, Tennessee, Virginia. Starting around 1775, this mountain pass became the primary route for American settlers moving west into Kentucky.

**NATIONAL HISTORIC SITES**

**NATIONAL HISTORIC AND SCENIC TRAILS**
- Example: Appalachian Trail, Georgia to Maine. 2,180 miles of foot trail along the crest of the Appalachian Mountains (see page 13).

**NATIONAL BATTLEFIELDS**
- Example: Moores Creek Park, North Carolina. Commemorates the 1776 victory by a thousand Patriots over about eight hundred Loyalists at the Battle of Moore’s Creek Bridge.

**NATIONAL LAKESHORES**

**NATIONAL MILITARY PARKS**
- Example: Kings Mountain, North Carolina. Commemorates the Battle of Kings Mountain, a pivotal victory by American Patriots over American Loyalists during the Southern Campaign of the Revolutionary War.

**NATIONAL MILITARY MEMORIALS**
- Example: Flight 93, Pennsylvania. Commemorates the site of the crash of United Airlines Flight 93, which was hijacked in the September 11 attacks.

**NATIONAL MONUMENTS**
- Example: Walnut Canyon, Arizona. Includes 25 cliff dwelling rooms constructed by the Sinagua, a pre-Columbian cultural group that lived in Walnut Canyon from about 1100 to 1250 CE.

**NATIONAL PRESERVES**
- Example: Little River Canyon, Alabama. This verdant, biologically-diverse area includes one of the deepest canyons in the eastern U.S.

**NATIONAL RECREATION AREA**
- Example: Chattahoochee River, Georgia. This 48-mile stretch of river offers public recreation and access to historic sites.

**NATIONAL SEASHORES**
- Example: Gulf Islands, Florida, Mississippi. Offers recreation opportunities and preserves natural and historic resources along the Gulf of Mexico barrier islands.

**NATIONAL MILITARY MEMORIALS**

*As of spring, 2016. Not all categories of parks are listed here.*
GREAT SPRING DRIVING TOURS, VIEWS, AND WILDFLOWER TRAILS IN THE SMOKIES

To Chattanooga

www.SmokiesInformation.org  Spring 2016

321
129

CHEROKEE NATIONAL
TENNESSEE WILDERNESS AREA
NORTH CAROLINA

Chilhowee
129

JOYCE LOOK ROCK TOWER
KILMER - SLICKROCK WILDERNESS AREA

Cades Cove Loop Road: 11-mile one-way loop road offers wildlife viewing and access to a historic grist mill, churches, and log homes. Allow at least 2-3 hours.

Note: Mileages are for the most direct route via park roads.
SPRING WILDFLOWER PILGRIMAGE

April 19-23

Every spring, nature enthusiasts from around the country converge on the Smokies to participate in the spring Wildflower Pilgrimage. This year’s event will offer 144 programs, including hikes, talks, strolls, and motor tours. Topics range from plants to salamanders to history. Visit www.springwildflowerpilgrimage.org for more information.

**Trout Lily**: Blooms March-May from low to high elevations.

**Fire Pink**: Blooms April-June from low to high elevations.

**Columbine**: Blooms April-June at low to mid-elevations.

**Yellow Trillium**: Blooms April-May at lower elevations.

**Thyme-leaved Bluets**: Bloom May-August from low to high elevations. (photos by Kent Cave & Bill Lea)

**Rue-anemone**: Blooms April-May from low to mid-elevations.

**White Trillium**: Blooms April-May from low to mid-elevations.

**Fringed Phacelia**: Bloom March-May from mid- to high elevations.

**White Trillium**: Blooms April-May from low to mid-elevations.

**Foamflower**: Blooms April-June from low to high elevations.

**Dutchman’s Britches**: Blooms April-May from low to high elevations.
Park rangers and volunteer Master Gardeners have joined forces to save vital pollinators in the Great Smoky Mountains. Their work includes a brand new “pollinator garden” in front of Sugarlands Visitor Center that features a plethora of native wildflowers that bees, moths, and butterflies can tap for food. Some of the new plantings are in bloom this spring, offering nutritious pollen and nectar to winged visitors.

Across North America, scientists and farmers are concerned with the drastic decline in populations of honeybees and other pollinators that are necessary for many flowering plants to reproduce. The main cause of the decline is loss of habitat for the flowers pollinators need for food. Meadows, pastures, and even roadside brambles are being mowed and paved over as cities and roadways expand. Overuse of pesticides and non-native mites on honeybees are also culprits.

Funding for the new project comes via a grant from the Biological Resources Division of the National Park Service. If money and logistics allow, the pollinator gardens will be expanded to Oconaluftee Visitor Center and the Great Smoky Mountains Institute at Tremont.

Great Smoky Mountains National Park is a major sanctuary for over 18,000 different kinds of plants and animals. This diversity includes 266 species of bees, nearly 100 butterflies and skippers, and some 1,000 moths. If some of these critical species were to become extirpated elsewhere in their range, the Smokies might serve as a biological reservoir for restocking.

Project coordinator Dr. Becky Nichols remarked that human park visitors as well as insects “should find the gardens very attractive.” Plantings will include butterfly weed, Virginia bluebells, pink turtlehead, milkweed (for Monarchs), bee-balm, fringed phacelia, sweet Joe-Pye weed, and wild geranium. The species were carefully chosen so that winged and two-legged visitors can enjoy the flowers from April through October.

Sugarlands Visitor Center is located two miles south of Gatlinburg on Newfound Gap Road (U.S. 441). In addition to wildflower gardens, the center offers restrooms, exhibits, a free 20-minute movie, information desk, and bookstore.

Spring-Beauty
Claytonia caroliniana

Smoky Mountains Institute at Tremont.
Great Smoky Mountains

Hobblebush
Viburnum lantana

Orange Touch-Me-Not
Impatiens capensis
## Sugartlands/Elkmont Area

<table>
<thead>
<tr>
<th>Location</th>
<th>Duration</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugarlands Visitor Center</td>
<td>1.5 hours</td>
<td>Easy</td>
</tr>
</tbody>
</table>

### A Walk in the Woods
Do you have a few minutes? Get away from the hustle and bustle by taking an easy stroll and discover stories of history and nature along this scenic, wooded trail.

### Creature Feature
Did you know that the Smokies is one of the most diverse places in the world? Join a ranger to learn about some of the creatures that live here and how they prepare for winter during this “Ranger’s Choice” style program.

### Old Town of Elkmont
Take an afternoon stroll with a ranger and learn about Elkmont when it was a turn-of-the-century logging boomtown.

### Stories that Flowers Tell
If flowers could talk what stories would they tell? Take a walk to hear some interesting folklore about the flowers the Smokies are famous for, and get to know your favorites a little bit better.

## Metcalf Bottoms Area

<table>
<thead>
<tr>
<th>Location</th>
<th>Duration</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugarlands Visitor Center</td>
<td>1.5 hours</td>
<td>Easy</td>
</tr>
</tbody>
</table>

### School Days at Little Greenbrier
Go back in time to discover what it was like to live in a mountain community and go to school in a one-room schoolhouse. Fun for all ages, and great for Junior Rangers. Please arrive 15 minutes before program start; space is limited.

## Cades Cove Area

<table>
<thead>
<tr>
<th>Location</th>
<th>Duration</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cades Cove Visitor Center</td>
<td>45 minutes</td>
<td>Easy</td>
</tr>
</tbody>
</table>

### April Hayrides
Enjoy a ranger-led open air hayride viewing wildlife and discovering the diversity of Cades Cove. $14.00/person* (for the hayride).

### Precious Memories
Discover the importance of the Primitive Baptist Church in Cades Cove’s everyday life.

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

### Junior Ranger Program
Bring the kids for a hands-on exploration of the Smokies. Earn a badge and certificate.

## Oconaluftee Area

<table>
<thead>
<tr>
<th>Location</th>
<th>Duration</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oconaluftee Visitor Center Porch</td>
<td>30 minutes</td>
<td>Easy</td>
</tr>
</tbody>
</table>

### Charismatic Mega-Feauna!
What is it? Where can I see it? Find out from a ranger if there is something we’re not telling you!

### Coffee With a Ranger
Join a Ranger for a cup of coffee and find out what’s happening in the park! Coffee provided. Bring a cup if you have one. Topics may vary based on visitor interests and things going on in the park.

### Down on the Farm
Walk down to the Mountain Farm Museum and see what pastime activities settlers may have been engaged in such as fence building, woodworking, or gardening. Activities vary.

## Special Programs

<table>
<thead>
<tr>
<th>Location</th>
<th>Duration</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugarlands Visitor Center</td>
<td>2 hours</td>
<td>Easy</td>
</tr>
</tbody>
</table>

### Science Friday
Join a scientist on the 3rd Friday of the month to learn about and engage in on-going scientific research happening inside Great Smoky Mountains National Park. Topics vary each month.

### Return of the Elk
Come enjoy a guided hike to the elk acclimation pen and explore how, when, and why the elk were returned to the Smokies. Hike is less than one mile.

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

### Blacksmith Demonstration
Learn the art of Blacksmithing and why it was important in the Cades Cove community.
## Programs and Activities in Great Smoky Mountains National Park—March 25 – May 8, 2016 Only

<table>
<thead>
<tr>
<th>Accessible</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>10:30 A.M.</td>
<td>10:30 A.M.</td>
<td>10:30 A.M.</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2:00 P.M.</td>
<td>2:00 P.M.</td>
<td>2:00 P.M.</td>
<td>2:00 P.M.</td>
<td>2:00 P.M.</td>
<td>2:00 P.M.</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>1:30 P.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>1:00 P.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>11:00 A.M. &amp; 2:00 P.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td>April Only 3:00 P.M.</td>
<td>April Only 3:00 P.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>11:00 A.M. &amp; 1:00 P.M.</td>
<td>11:00 A.M. &amp; 1:00 P.M.</td>
<td></td>
<td>2:30 P.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>1:00 P.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>11:00 A.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>10:00 A.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>2:00 P.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>1:00 P.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>1:00 P.M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3:00 P.M. April 12, April 19, &amp; May 3</td>
<td>3:00 P.M. April 12, April 19, &amp; May 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>2:00 P.M. April 16, May 7, &amp; May 21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>10:00 – 4:00 P.M. March 26 &amp; April 23</td>
<td>10:00 – 4:00 P.M. March 27 &amp; April 24</td>
<td>4:00 P.M.</td>
<td></td>
</tr>
</tbody>
</table>
if you love the smokies...

help protect this place for ourselves and future generations

become a member

Since 1953, Great Smoky Mountains Association has supported the educational, scientific, and historical efforts of the National Park Service through cash donations and in-kind services. In 2016 alone, the association plans to provide more than $1.4 million in assistance that includes saving hemlock trees, living history demonstrations, environmental education programs, salaries for wildlife personnel, and historic preservation.

Association members receive a number of benefits to keep them informed about special events in the park and issues affecting the Smokies:  
• Subscription to the semi-annual, full-color magazine Smokies Life  
• Digital access to the award-winning quarterly park newspaper, Smokies Guide, and the association’s newsletter, The Bearpaw  
• A 15-20% discount on books, music, gifts, and other products sold at park visitor centers and at our web store  
• Discounts of 10% at more than 400 national park bookstores across the country  
• Special discounts at area rental cabins, inns, restaurants, shops, and attractions  
• And most importantly, the satisfaction of helping to preserve nature and history in Great Smoky Mountains National Park

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

Great Smoky Mountains National Park is one of the few large national parks without an entrance fee. Most parks now charge $20 or $30 per vehicle. Without this supplemental income, it is difficult for the Smokies to adequately protect wildlife, preserve historic areas, and provide educational opportunities. You can help by using some of the money you saved at the entrance to support the park partners that support our park!

field school

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

gsmi at tremont

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

summer camps

Great Smoky Mountains Institute at Tremont offers a variety of summer youth camps in the national park. Camps last from 6-11 days and cost from $572. Fees include meals, lodging, and most equipment.

This year’s offerings include: Discovery Camp (ages 9-12), Wilderness Adventure Trek, Girls in Science (ages 12-15), and Teen High Adventure (ages 13-17). Contact: (865) 448-6709, or www.gsmi.org

GSMA MEMBERS

“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
• Annual Business Membership $250

SIGN ME UP!

Name(s)* ____________________________________________
Address ____________________________________________
Email (for Cas Report) __________________________________
Telephone # __________________________________________
Please include your check with this form. Mail to: GSMA, P.O. Box 130, Gatlinburg, TN 37738

support the friends

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

Since 1993, Friends has raised over $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!

Friends of the Smokies  
P.O. Box 1660  
Kodak, TN 37764  
(865) 932-4794  
1-800-845-5665  
www.friendsofthesmokies.org
We all know that visitors come to the Great Smoky Mountains to see bears and waterfalls, but surveys show the public also puts a very high value on the peace and quiet they find in national parks. And rightly so. According to researchers, long-term exposure to loud noise degrades both your physical and mental health.

Unfortunately, indoors and outdoors, the world is becoming a noisy place. In the Southeast especially, national parks are some of the few places where humans have any chance whatsoever of finding a little quiet. Even in the Smokies, noise from aircraft, motor vehicles, generators, and maintenance equipment can shatter the silence and overwhelm the natural sounds of songbirds, insects, and rustling leaves.

To address the issue of noise pollution, Scott McFarland, a Park Service scientist assigned to the Southeast Region, is conducting a sound monitoring study at ten sites in the Smokies. His work will build on baseline sound data collected here a decade ago and will document precisely how, when, and where the park gets loud. McFarland will then use the data to help park officials make policies that conserve natural silence here.

In the past, park officials have negotiated with local communities and operators of helicopter and airplane sightseeing tours to help reduce this source of noise pollution in national parks. Modifications to equipment such as leaf blowers, mowers, generators, and power saws used by Park Service and other work crews can also make a tremendous difference. As does educating motorcyclists and car enthusiasts about the impacts of their machines on the resource of silence. In 2015, McFarland spent several days talking to participants of the famous Sturgis, South Dakota motorcycle rally and found an interested and receptive audience.

“Half the battle is just educating people about the value of quiet in our national parks,” McFarland said. “Once they think of it as a resource worth preserving, their attitudes and behaviors can change.”

### The United States of Noise

We all know that visitors come to the Great Smoky Mountains to see bears and waterfalls, but surveys show the public also puts a very high value on the peace and quiet they find in national parks. And rightly so. According to researchers, long-term exposure to loud noise degrades both your physical and mental health.

Unfortunately, indoors and outdoors, the world is becoming a noisy place. In the Southeast especially, national parks are some of the few places where humans have any chance whatsoever of finding a little quiet. Even in the Smokies, noise from aircraft, motor vehicles, generators, and maintenance equipment can shatter the silence and overwhelm the natural sounds of songbirds, insects, and rustling leaves.

To address the issue of noise pollution, Scott McFarland, a Park Service scientist assigned to the Southeast Region, is conducting a sound monitoring study at ten sites in the Smokies. His work will build on baseline sound data collected here a decade ago and will document precisely how, when, and where the park gets loud. McFarland will then use the data to help park officials make policies that conserve natural silence here.

In the past, park officials have negotiated with local communities and operators of helicopter and airplane sightseeing tours to help reduce this source of noise pollution in national parks. Modifications to equipment such as leaf blowers, mowers, generators, and power saws used by Park Service and other work crews can also make a tremendous difference. As does educating motorcyclists and car enthusiasts about the impacts of their machines on the resource of silence. In 2015, McFarland spent several days talking to participants of the famous Sturgis, South Dakota motorcycle rally and found an interested and receptive audience.

“Half the battle is just educating people about the value of quiet in our national parks,” McFarland said. “Once they think of it as a resource worth preserving, their attitudes and behaviors can change.”

### Armadillos Spread to the Great Smoky Mountains

Biologists at Great Smoky Mountains National Park may soon be adding another species to the list of 18,545 varieties of plants and animals already documented in the park: the nine-banded armadillo. Sometimes referred to as “armored ‘possums,” armadillos have been expanding their range northward and eastward into the U.S. since they crossed the Rio Grande River from Mexico in the late 1800s.

Armadillos are closely related to anteaters and sloths and likewise spend their time rooting for grubs, worms, ants, beetles, and termites. The North Carolina Wildlife Resources Commission recently reported at least one confirmed observation of an armadillo in Haywood County, which is partially situated within the national park. A southern species not particularly well suited for cold weather, armadillos may be moving northward in part due to global climate change.

### Super (Anti-) Hero Ants of the Smokies

An incredible 116 species of ants live in the Great Smoky Mountains, including two varieties of notorious army ants (Neivamyrmex). Army ants are nomadic warriors that march at night and decimate colonies of other ants in a violent fashion that might require censorship in some comic books.

Similar to the infamous tropical varieties of army ants, the Smokies species march in long columns and devour most everything in their path, including worms, beetles, and centipedes. As they converge on a colony of other ants, they first slaughter the guards, then carry off the pupae, larvae, and corpses of adult ants, all as future food for the victors. Army ants build no permanent colonies, only temporary bivouacs on their relentless march of conquest and destruction. In the Smokies, they are most likely to be encountered in habitats with dry, open oak forest or fields.

Armadillos are closely related to anteaters and sloths and likewise spend their time rooting for grubs, worms, ants, beetles, and termites. The North Carolina Wildlife Resources Commission recently reported at least one confirmed observation of an armadillo in Haywood County, which is partially situated within the national park. A southern species not particularly well suited for cold weather, armadillos may be moving northward in part due to global climate change.

### Weird Science

Researchers reveal new wonders and puzzles
For more information, visit www.nps.gov/grsm or follow us on Twitter @GreatSmokyNPS

Visitor Information

General Park Information:
(865) 436-1200
www.nps.gov/grsm
Backcountry Information:
(865) 436-1297
www.smokiespermits.nps.gov
To Order Maps & Guides:
(865) 436-7318 x226
www.smokiesinformation.org

For Emergencies:
Listed below are some numbers to call for emergencies that occur in the park.
Park Headquarters:
(865) 436-9171
Cherokee Police:
(828) 497-4131
Gatlinburg Police:
(865) 436-5181

For Backcountry Information:
Backcountry Information:
(865) 436-1297
www.smokiespermits.nps.gov

To Order Maps & Guides:
(865) 436-7318 x226
www.smokiesinformation.org

For 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.

For Pet Regulations:
Picking or digging plants is prohibited in the park.
Persons feeding wildlife are subject to a $5,000 fine.
Pets are not permitted on most park trails. Only the Gatlinburg and Oconaluftee River trails allow dogs on a leash.

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