

SIGHTLINE

RESOURCE ISSUES IN GREAT SMOKY MOUNTAINS NATIONAL PARK

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Photo: Nick Gary

Cades Cove

A Sightline Special Issue

Anyone who has toured the 11-mile-loop road that encircles Cades Cove will understand why the Cove is Great Smoky Mountains National Park's (GSMNP) most popular destination. The Cove receives so many visitors—some 2 million per year, in fact—that it ranks in the top 10 percent of National Park Service units in the United States.

Most visitors arrive hoping to hear old planks creak underfoot as they explore pioneer cabins that retain the look and smell of age and hard use. Or to glimpse

deer browsing in mist-shrouded meadows. Or to watch west-facing slopes catch and hold the last rays of the setting sun. Or to soak in the vibrant orange, gold, and red foliage that burnishes the mountains in fall.

From the modern visitor's perspective, the Cove, with its abundant wildlife, meandering creeks, spreading meadows, looming walls of protective mountains, and blessed isolation, might inspire visions of utopia.

It held similar appeal for European-American settlers, who arrived in the early 1800s to clear the land, raise livestock,





Photo: National Park Service

As it was—Cades Cove was a farming community for decades before it became part of Great Smoky Mountains National Park.

cultivate crops—primarily corn and wheat—and hew homes from the surrounding forest.

Ten carefully preserved homesites and churches and a functioning grist mill survive in the Cove and provide visitors a glimpse into Cades Cove life of more than 100 years ago.

But long before white settlers arrived, Cherokee Indians lived and hunted in the Cove, which sat at a crossroads of Cherokee trails linking settlements outside the region.

Though the Cove exudes a simple charm, it has posed a complex management challenge for the Park Service since GSMNP was established in 1934. This special edition of *Sightline*, devoted entirely to Cades Cove, addresses the Cove's ecological health, its past and present management schemes, and some of its more pressing resource issues.

Among these issues are traffic congestion on the narrow,

one-way road (see "Trapped in the Cove" on page 6), Park Service efforts to battle invasive plant and animal species and reintroduce natives (see "Combating Alien Invaders" on page 16), the changes wrought by former human habitation and current visitation (see "The Cove's Changing Landscape" on page 13), the challenges inherent in a preservation ethic (see "What Might Have Been" on page 3), and an assessment of the Cove's geology and its current plant and animal communities (see "Field and Stream" on page 9 and "Crunching Numbers" on page 19).

Though much has been written about the Cove over the years, we believe this issue of *Sightline* provides a new look at a very old place and, in the process, provides modern visitors with information that can help them better appreciate the Cove while helping to preserve its unique qualities.

—David Brill, *Sightline* Editor

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In pre-Park Service days, farmers' fields created a patchwork of colors and textures across Cades Cove. Management of the Cove's open areas changed all that.

What Might Have Been

In the early days of Park Service management, proponents of development and those in favor of preservation vied for control of Cades Cove's future.

BY DENNIS MCCARTHY

Cades Cove has been a focal point of National Park Service policy since the birth of Great Smoky Mountains National Park. Park personnel wrestled with how best to manage the Cove in the early 1930s, and they continue to do so today. The policies and practices that have shaped Cades Cove have become a part of our national heritage.

During the 1930s, when the National Park Service was undergoing rapid expansion, two camps—the developers and the preservationists—warred over national park policy. Arno Cammerer—the third director of the National Park Service, from 1933 to 1940, and the man who oversaw the establishment of Great Smoky Mountains National Park—was in a quandary over what the national parks should be.

Developers wanted the parks to be tourist meccas, providing an economic boost to the regions they were in. The developers envisioned luxurious hotels, fine restaurants, swimming pools, tennis courts, and vast networks of roads for visitors to easily navigate what Congress had first called national “pleasuring grounds.”

Preservationists, on the other hand, saw the parks as

sanctuaries for the contemplative sojourner. Roads, and certainly development, were anathema. Parks should be preserves for wildlife, plant communities, and spectacular geologic features. And hiking trails, while okay, should not be too intrusive.

Early on, Cammerer sided with the developers, so when the ill-named Great Smoky Mountains Conservation Association proposed damming Abrams Creek to create a three-and-a-half-mile lake for swimming, boating, and fishing in Cades Cove, Cammerer concurred. Park Superintendent J.R. Eakin approved too. A lake in Cades Cove would go nicely with the statuary, carillon bells, luxury lodges, and restaurants that boosters in and out of the Park Service were proposing. Besides, proponents could justify a lake as a restoration project since geological evidence suggested that the Cove had held a lake eons earlier.

On the side of the preservationists, however, were four formidable advocates: Benton MacKaye, father of the Appalachian Trail; Bernard Frank, a TVA engineer; Knoxville lawyer Harvey Broome; and Bob Marshall, a



Photo: National Park Service

John Oliver delivered mail to Cove residents in the early part of the 20th Century.

forester for the U.S. Forest Service who gave his name to one of the West's truly great wilderness areas. These four men came up with the idea of a wilderness league after a hike to Clingman's Dome in the fall of 1934. A few months later, with the support of wildlife biologist Aldo Leopold and a few others, they created the Wilderness Society.

PRESERVATION TRUMPS DEVELOPMENT

The fledgling society's first great challenge was to prevent the flooding of Cades Cove and the construction of a skyline drive along the crest of the new Park. By the end of 1935, the Wilderness Society's initial campaign was a success; the lake and the highway were effectively dead, although a small segment of the road, already under construction from Newfound Gap to Clingmans Dome, would eventually be finished.

The wilderness advocates won over not only local Park officials, they won over Arno Cammerer too. By the end of his term as director of the Park Service, Cammerer proclaimed that henceforth, all national parks would be true "wilderness preserves."

Still, even though Cades Cove was not to become a developed recreation center, it did present special problems. The Cove was definitely not wilderness. It had been farmed extensively by European descendants for over 100 years and by Native Americans for generations before that. Much of the beauty of the Cove rested with its rural appeal. While forests abounded, especially on the surrounding ridges, the valley floor remained largely open. The Cove's fields and farmsteads exuded a bucolic charm that Park advocates wanted to preserve.

When the Cove lands had been purchased for inclusion in the Park, homesteaders were forced to move out. In 1928, 110 families lived in the Cove. By late-1935, only 21 families were left, and these were told they would have to leave by the following year. No one was left to take care of the fields. The forests soon encroached, filling in the vistas, hiding the homesteads, and converting the Cove into just another lovely valley. The Park Service realized that if it didn't do something soon, it would lose the Cove's unique historical heritage for good.

A HISTORIC IDEA

Edward Hummel, a Park Service employee who years later would become superintendent of Great Smoky Mountains National Park, suggested that Cades Cove be treated as a historical area, just like George Washington's birthplace and the Civil War sites that the Park Service had recently acquired. It was a clever solution. While national parks are generally preserved as unspoiled wilderness, historical areas are maintained in their historical setting. The idea of maintaining a historical area within a national park caught on because it allowed the Park staff to maintain the rural beauty and openness of the Cove.

The Park adopted the idea, Cades Cove was declared a historical area, and, in 1945, a few families who had once lived in the Cove were allowed to return and lease the land. Before long, the open vistas and vast fields in the Cove were restored.

The Park decided to maintain Cades Cove as a 19th-century farm community. The Cove's 20th-century structures were torn down, and earlier structures were preserved. An

old grist mill, built by John Cable at the end of the Civil War, was returned to operation. The Park Service established demonstrations of historical farming practices and other aspects of life on a 19th-century farm—such as plowing with horses, grinding sorghum to make molasses, quilting, making rifles, and operating a moonshine still.

DECLINE AND RESTORATION

During the 1950s and 1960s, before the environmental movement took off, the Soil Conservation Service worked with the Park Service and leaseholders in the Cove to drain wetlands to make the fields more productive for hay and pasture. Leaseholders began planting tall fescue, a popular hay crop native to Europe. Before long, the native grasses—big and little bluestem, Indian grass, and purple top—were all but displaced by their European kin.

In many respects, tall fescue makes a fine forage grass; it is drought resistant and highly adaptable to a variety of soil conditions, and it stays green year around. It is not without problems, however. Fescue is not a particularly good cover crop for wildlife. Heavy rains and snows can knock over the grass, especially during winter when cover is critical to deer, quail, and turkey. And once the grass is on the ground, it cannot right itself until the next growing season.

By the 1970s, scientists also discovered that some varieties of tall fescue carry a fungus that reduces weight gain and lowers milk production in cattle, makes them sensitive to heat, and lowers the birth rate of both cattle and horses.

Since tall fescue was proving not to be the boon it had been thought to be, and it certainly was not typical of a 19th-century farm, Park personnel within the past decade have begun restoring native grasses in the Cove. In an attempt to return the landscape to something closer to what earlier settlers experienced, the Park Service has also begun restoring wetlands that were ditched and drained half a century ago.

EPILOGUE

Today, the landscape of the Cove is not appreciatively different from what it was in the mid-1800s. Although it has a few more trees, perhaps, and the fields still host a fairly uniform cover of 1950s fescue, given time, the Cove will acquire the feral look of a prairie as native grasses return. Certainly, far more deer populate the Cove today than they did in the 19th century, but turkeys are fewer. The roads are much improved, and snake-rail fences have been replaced with barbed wire.



Photo: Nick Gary

Even into the 20th Century, Cove residents were self-sufficient, much as their pioneer ancestors had been. Homemade molasses, processed through a horse-powered mill, provided “sweetening.”

So while small differences are visible here and there, the Cove has been successfully preserved as a historical area, just as Edward Hummel proposed. And, more important, Hummel’s idea set a precedent for parks around the nation.

Preserving Cades Cove was a crucial turning point for other national policies too. The Wilderness Society, which rose to national prominence over Cades Cove and the Great Smokies, became the leading national advocate for wilderness protection. Harvey Broome, the society’s first president and staunchest wilderness supporter, even attended the signing of the Wilderness Act at the White House in 1964.

We may never know if Cades Cove was on Broome’s mind as he stood beside President Lyndon Johnson in the Rose Garden on that late summer day nearly four decades ago, but it’s a safe bet that it was never far from his heart.

For more information, contact Bob Miller, Great Smoky Mountains National Park, 107 Park Headquarters Road, Gatlinburg, TN 37738, or call 865-436-1207.





Trapped in the Cove

With visitation to Cades Cove increasing three times faster than Park visitation as a whole, planners hope to resolve traffic congestion that's spoiling views and fueling road rage.

BY KRIS CHRISTEN

How many cars are too many? That's the number-one question on the minds of planners concerned with protecting the quality of each visitor's experience in Great Smoky Mountains National Park (GSMNP).

Renowned for its scenic beauty, abundant wildlife, and numerous historical structures, Cades Cove can be a congestion nightmare for some 2 million visitors each year who throng the popular, 11-mile loop road throughout the summer months and during the colorful fall foliage season. And the trend threatens to worsen, making it even more difficult for visitors to avoid the traffic.

"There was a time when we only had congestion here for eight weeks in summer and two weeks in the fall, but the fastest-growing periods of visitation to the Park have been in what used to be the off-season," says Bob Miller, GSMNP spokesperson. "So it's not unheard of to go out to Cades Cove on weekends in December or March and get stuck in a traffic jam."

In fact, if Cades Cove were a national park on its own, it would rank in the top 10 percent of the most-visited national park units nationwide, including not only Yosemite and Yellowstone national parks, but also places like the Blue Ridge Parkway and New York City's Gateway National Recreation Area, according to Miller.

TRAFFIC IMPACTS

The impacts of this run on the Cove are many, but the primary issue according to Park officials, is visitor enjoyment. "We get tons of complaints from people who are irate because others won't pull over," Miller says. "It's a one-way, one-lane loop, and if there's a bear a mile ahead, everybody will have to get out to take a picture, and there's not always room to pull over, so traffic can't continue past."

Also high on the list of impacts is the wildlife harassment that occurs when people chase or surround bears, deer, and other animals for a closer look, behavior over which rangers have little control, Miller notes. And the footprint of beaten-down areas along the loop roadway is expanding as more drivers pull over or pass on any flat areas that aren't fenced off.

Moreover, long lines of cars contribute to air pollution and degrade visitor enjoyment of the Cove. While Cove traffic isn't a measurable contributor to the Park's air-pollution problem as a whole, "experiencing the Cove under conditions of congestion puts you light years away from what it might've been like to live there historically," Miller points out.

Another big concern is visitor safety. For instance, if somebody has a heart attack at the back of the loop road, rangers don't have a



quick, easy way to respond, Miller says. Motorbikes and other forms of transportation have been considered for such situations, but these vehicles aren't fast enough, don't carry as much as four-wheeled vehicles, and can't be used in all weather conditions.

TRANSPORTATION ALTERNATIVES

To begin addressing the congestion problem, the National Park Service (NPS) has partnered with the Knoxville Regional Transportation Planning Organization (KRTPO). Together, they've established the Regional Transportation Alternatives Plan. One element of the plan called for a general technology assessment of Cades Cove, now completed, which provides a foundation for further study and planning efforts for the Cades Cove Development Concept and Transportation Management Plan scheduled to begin early in 2002.

The technology assessment nailed down 13 different conveyances for the Cove, ranging from the ordinary—rail systems, trams, trolleys, and shuttle buses—to the extraordinary: a reservation system where visitors would have to preregister for a time slot to drive through the Cove. This preliminary study looked at the strengths and weaknesses of each technology, how much it would cost, how many passengers it could carry, and how often vehicles would need to depart to accommodate projected growth in tourism over the next 30 years, according to Teresa Cantrell, NPS transportation planner.

"We looked at each technology in terms of capacity, size, and weight of vehicles; maximum road slope; turning radiuses; reliability; types of alternative fuels that could be used; general operating costs; typical prototype vehicle costs; and impact on visitor experience," Cantrell says.

Which technology would best suit the Cove is difficult to say. "Each had pluses and minuses at either end of the spectrum," Cantrell says. For instance, a light rail or monorail system would require a huge infrastructure investment, but could transport a lot of people efficiently. Open trams or conventional buses would require little new infrastructure because they could operate on existing roads, but they aren't particularly well-suited for the high volume of visitors that the Cove receives.

"Now that we've identified the technologies, we need to take a comprehensive look at which technology or set of technologies best fits the Cove in terms of enhancing the visitor experience and protecting the Cove's natural and cultural resources that keep people coming back year after year," Cantrell says.

This comprehensive, 18-month study began in January 2002 and will encompass more than an analysis of the identified options. "You first have to determine what you want Cades Cove to be and how you want visitors to experience the Cove," says Jeff Welch, KRTPO director. "Based on the answers to those questions, you design a

transportation system to meet those objectives." Consequently, the project will also include a study of natural resources, economic analyses, cultural analyses, and visitor-experience surveys, Welch says.

In addition to analyzing impacts on the Cove and the Park, the study will also try to identify potential ripple effects on the communities located near the Cove. "If we institute some kind of transit system in the Cove, what will that mean for Townsend, Gatlinburg, and Pigeon Forge?" Cantrell asks. Would visitors spend more time in these gateway communities or just park their cars there? And finding a place to park the thousands of cars while visitors ride the conveyances will also be a challenge, Miller says.

GATEWAY COMMUNITIES

In communities located near the Park's entrance, residents are well aware that any type of mass-transit system in Cades Cove will require significant parking facilities, most likely in their neighborhoods, but they see this endeavor more as an opportunity than a liability.

"If we could get traffic congestion solved in Cades Cove, it would be a real public-relations boon, because that's probably the biggest concern of anybody traveling to the Smokies," says Steve Wilson, public-relations manager for the Gatlinburg Department of Tourism. "It's the number-one problem facing us, according to all of our surveys."

In Townsend, the most likely parking-lot location because of the town's proximity to Cades Cove, officials express some concern over the accompanying development that such a staging area might bring. "We don't want to see the Tuckaleechee Cove and Townsend area developed into another Gatlinburg or Pigeon Forge," says Herb Handly, executive vice president for tourism at Townsend's Smoky Mountain Convention and Visitors Bureau. Instead of another theme park, the region is seeking to create a heritage community, highlighting the area's scenic beauty, slower pace, and historical sites.

If it's done right, however, Townsend officials are optimistic that a mass-transit system operating from their town to Cades Cove could help curb congestion in the community, as well as in the Park. Sandy Headrick, Townsend's mayor, foresees a system that picks people up at their motels and transports them to shops and attractions in Townsend as well as to the Cove.

Because Cades Cove is the ultimate destination of tourists visiting and staying in Townsend and the Tuckaleechee Cove region, "it's important to us that they have a good experience in the Cove," Handly says.

WANTED: PUBLIC PARTICIPATION

As the study on mass-transit options for Cades Cove gets underway, the major focus will be on gathering ideas from the public and making sure the community knows what's going on.

“One of the big challenges in planning [for national parks] is that you’re doing the planning for a national audience with largely local input,” Miller notes. “We’ll have to use a variety of tools because, while it’s easy to talk to residents in Townsend or Knoxville, it’s hard to get [input from] those folks who travel hundreds of miles to the Park.”

These tools will include open houses, newsletters, Web sites, and meetings with special interest groups, NPS staff, and the gateway communities—all with the goal of soliciting people’s thoughts on what they’d like to see—or not see—in the region.

Past visitor surveys show that visitors are happy about their experience in the Cove, “but if you ask them about traffic, they’re divided on what they think we should do about it,” Miller says. Many people already don’t come to

the Park at certain times of the year, says Miller, because traffic and overcrowding take them beyond their comfort level.

For more information or to send comments, contact Teresa Cantrell, Great Smoky Mountains National Park, 107 Park Headquarters Road, Gatlinburg, TN 37738, 865-436-1241; Kelley Segars, Knoxville Regional Transportation Planning Organization, Suite 403 City County Building, 400 Main Street, Knoxville, TN 37902, 865-215-4001; or go to <<http://www.knoxtrans.org>> and click on the link for Foothills Parkway/Cades Cove study.



Other National Parks Struggle, Too

Great Smoky Mountains National Park (GSMNP) isn’t the only park struggling with congestion issues. Growing visitation of the national park system in general is raising a lot of concern, says Robert Manning, a professor at the University of Vermont’s School of Natural Resources. Through various types of visitor surveys, Manning does carrying-capacity research and management to help national parks determine how much use can be accommodated without unacceptable impacts on either natural and cultural resources or the quality of visitor experience.

“We try to get judgements from people about the points at which they begin to notice increasing amounts of environmental impacts in terms of vegetation destruction and soil compaction and when they begin to object to these impacts,” Manning says. In the course of his research, he’s finding more often that mass-transit systems are replacing private automobiles in national parks; GSMNP will be looking at these models more closely in the coming months.

Grand Canyon National Park, for instance, has a free tram system that takes visitors to the most popular scenic overlooks and trailheads, says GSMNP spokesperson Bob Miller. In fact, the Park Service is now in the process of upgrading the Grand Canyon system, which already includes commercial rail service from Phoenix and Flagstaff, to an expanded tram service that will require parking outside the Park boundaries altogether.

In other national parks, such as Yosemite, the gate

is closed once available parking spaces are filled, Miller says. Denali National Park in Alaska has had a bus system in place for several decades, and Arches National Park in Utah has gotten fairly aggressive about enforcing “no overflow” parking, Manning says.

The best model for Cades Cove, however, might be in Zion National Park in southeastern Utah. The area has very little developable land along the 12-mile canyon floor, and the two-lane road that winds through it, like Cades Cove, has few pull-outs to accommodate cars. Zion’s solution to its traffic problem is a mandatory bus system, which offers parking at the Park entrance in Springdale.

“There used to be a steady stream of cars backed up to get through the canyon, and people would drive around and around waiting for one of those spaces to open up so they could get out of their cars,” Miller says, which resulted in fist fights over parking spaces. “The people who went through that recognize that not only is it quicker to get where you’re going with the new system, but it’s a lot less stressful than before.”

For the most part, mass-transit systems have been well received in the national parks, Manning says, although he admits there’s typically a fair amount of resistance in the beginning. “Once systems are put in place, though, I think people do see the benefits,” he says. “And one of the most important benefits is that these systems may allow more people to visit the national parks without limitations.”

—Kris Christen



Photo: National Park Service

Field and Stream

Cades Cove's unique history and ecology make it home for an unusual variety of plants and animals.

BY LISA BYERLEY GARY

In Great Smoky Mountains, the most-visited of all national parks, Cades Cove offers a special attraction all its own. Of the 9 million or so visitors who make their way to the Park in a given year, fully 2 million of them take the meandering 11-mile loop through the Cove.

One of only a handful of open spots in the vast and heavily wooded Smoky Mountains, Cades Cove has been home to humans for hundreds of years and was claimed as a hospitable niche in the mountains by European settlers in the 1820s. Here, nestled into the bosom of the hills, they prospered as farmers of fertile soils and hunters of abundant game, despite the wild and rugged terrain around them.

The settlers and their descendants are gone now, but the Cove is still a hospitable abode for many species of flora and fauna. An array of wildlife in the open fields along the Cove road is one reason so many human visitors drive, bike, or hike through the Cove each year. And plants abound here that are found virtually nowhere else in these mountains—some, in fact, that are found nowhere else for hundreds of miles. Such plants seem to thrive on the limestone of the Cove's soil.

BACK TO NATURE

Managing this fertile and historic valley in the Smokies is a challenge. When the Park was established in 1934, modern

management techniques involved human-made “improvements” such as the introduction of exotic plant life, the building of ditches, and the draining of wetlands. This strategy continued throughout the 1950s and 1960s. Today, some of the Park's management of Cove lands involves undoing some of those old remedies and reverting to native species and natural landscapes.

But knowing what is “natural” and “native” involves evaluating what is there and watching for trends among animal and plant species. To that end, Park scientists undertake formal and informal counts of plants and animals.

UT wildlife scientist Michael Pelton counted deer in the 1970s and 1980s using a technique called spotlighting, which the National Park Service's Bill Stiver and co-workers continue to use today. Every second week throughout the year, they drive along the Cove's loop road about 30 minutes after sunset shining a spotlight on both sides of the road. They count and record the number of deer they see, then compare the data with that of previous years. A modification to this technique will help translate a simple head count to a more precise deer-per-acre or deer-per-square-mile density analysis.

“Not many people go out in the Cove at night,” Stiver says. “But there is a lot going on at night that people never get to see.”

Park wildlife biologists note other



sightings on their nighttime forays as well. Raccoons, skunks, wild hogs, barn owls, and bears are frequently on the list. The Cove is home to many more species, including river otter, groundhog, gray squirrel, Eastern cottontail rabbit, chipmunk, bobcat, copperhead, and timber rattlesnake.

“The Cove is a very diverse area,” Stiver explains. “A lot of edge-type species can exist there. The old field-type settings offer a variety of habitat that lends itself to a variety of animals. Most of the land in the Park is forested, so these open habitats provide unique space you don’t see otherwise. There are species of hawks and birds you don’t see in other areas of the Park. And the deer population is much higher than anywhere else in the Park.”

DEER IN DECLINE

The deer like to graze in the Cove’s open spaces and are prolific there, but the current population is markedly smaller than in previous years.

“Spotlight counts in the 1970s routinely produced 300 deer,” says Stiver. “We’re lucky to get 100 now.”

That is not necessarily a bad thing, he says, because the Cove’s smaller population of deer is now stable and healthy. He knows this because, in addition to the spotlight counts, five deer are harvested every second year to evaluate the herd from a health standpoint. Weight checks and parasite counts indicate the level of stress on deer in the Cove. Recent evaluations indicate that the deer herd is within the Cove’s carrying capacity.

While it’s hard to be sure why the deer herd has declined in the last few years, scientists have their suspicions, says Joe Clark, research ecologist with the U.S. Geological Survey’s Southern Appalachian Field Laboratory. “For one thing, you see a pretty definite browse line in the woods where deer have eaten all the foliage. You can see through the woods really well, which is unusual for the Park.”

That, says Clark, means there is not a lot of cover in the trees, and that may affect deer densities. The deer give birth to fawns in May and June, he says, and they count on camouflage for defense.

“The lack of an understory leaves the fawns vulnerable to coyotes, black bears, and bobcats,” Clark says. “So fawns don’t make it to adulthood very well. Enough make it for the population to be stable, but there are less deer than there would be with heavier cover.”

Another impact on the deer population is the lack of major predators for adult deer, Clark says. There are no wolves or mountain lions in the area now, and hunting is not allowed in the Park. While other predators would gladly eat an adult deer, they don’t often get the opportunity. So the adult deer thrive, and heavy populations of adults consume the vegetation needed to sustain a herd. Lack of food triggers a decline in the adult population.

COYOTES AS PREDATORS

In the past, the red wolf was the dominant canine in the Smokies, Clark says. Today the coyote, which moved into the area in the 1980s after migrating from the western United States, has largely occupied the ecological niche once held by the red wolf. “There are some differences, of course. The coyote has a somewhat smaller body size, but there is a lot of dietary overlap. They play some of the same roles.”

The black bear, too, is a carnivore and will prey on fawns and other small mammals at times. Clark, a noted bear researcher, says that many bear sightings in the Cove come in the spring when bears are searching for fawns. Still, the black bear is predominantly a fruit-and-nut eater. “The bears do benefit from clearings in the Cove. There are black cherry trees adjacent to large cleared openings that bear fruit pretty well,” he said. “August and September are good times to see bears in trees eating fruit.”

Bears come to the Cove not because they can’t find cherry trees elsewhere, Clark says, but because the trees in the Cove may bear more fruit because they get more sunlight.

PLANT SPECIES

The Cove used to be a fertile home for farmers largely because of its unique limestone soil composition. Cades Cove and White Oak Sinks, a much smaller area, are the only two zones in the Park that feature that type of soil. As a result, the Cove boasts a mix of plant species uncommon to the larger Park area, says botanist Janet Rock. There are some two-dozen species found only within the Cove. Part are there because of the limestone, but there are other anomalies no one has really studied, Rock says.

One fascinating aspect of Cove flora is the coastal plain disjuncts found there. These species are unique not only to the Park, but to the entire region. “You’d have to travel to the coastal area of Virginia or the Carolinas to find plants like those,” Rock says.

Why coastal plain species reside in the Cove and how they got there are questions no one can answer, Rock says, but they are considered native plants and were not introduced by settlers. The Cove’s coastal-plain plants include Virginia chain fern, weak-stemmed buttercup, and campanulate (bell-shaped) sabatia, a colorful pink flower.

Other unusual flora in the Cove include yellow-eyed grass, which is a marsh



Native Indian grass grows again in Cades Cove.

Photo: National Park Service