

American Birding Association

# Birders' Guide

MAY 2014 • VOL. 26 • NO. 2 TO CONSERVATION & COMMUNITY



# Pine Woodlands

Restoring the Woodlands of the **Past**  
for the Birds of the **Future**

**I**n the 1800s, thousands of settlers set out with families, wagons, and possessions on an uncertain but hopeful westward trek across southeastern North America. Many came from the coastal plains and the Appalachians and traveled into the interior highlands of Arkansas, Missouri, and Oklahoma, searching for a better life. On those perilous journeys, they experienced vast expanses of park-like pine woodlands that echoed with the tooting notes of Ivory-billed Woodpeckers, a species that used both old-growth bottomland swamps and old, open pine woodlands.

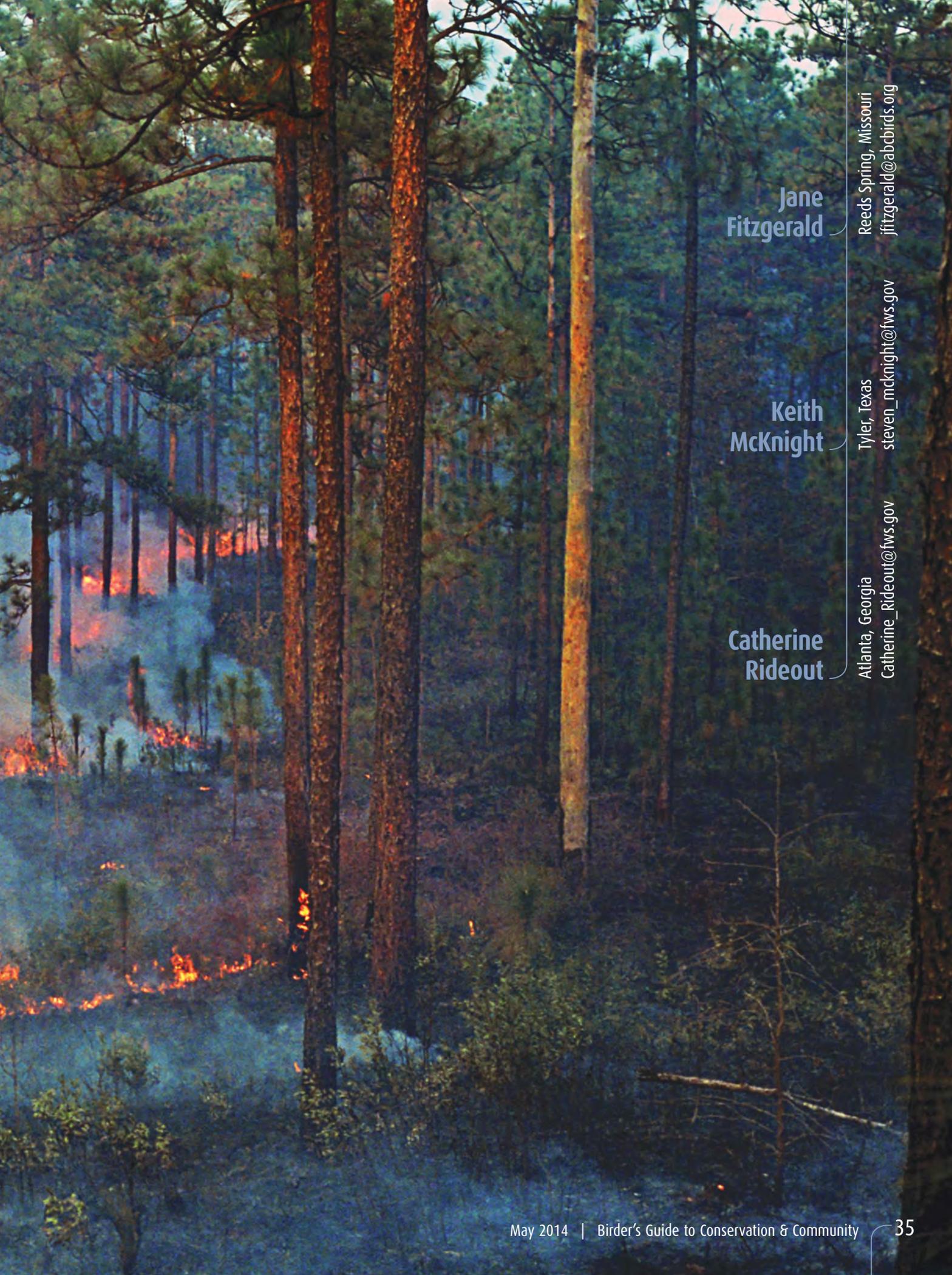
Those pine woodland ecosystems evolved with frequent fire, which encouraged a lush understory of native grasses and wildflowers of amazing richness and diversity. That understory and its web of life were vital for many bird species. Natural fires left the trees spaced so widely that early settlers could easily drive wagons among them. That, unfortunately, also led to widespread clear-cutting and, by the 1930s, those pine woodlands were nearly gone. For example, of the 90 million acres of longleaf pine forest that once existed, slightly more than four million remain today, and only a tiny portion of that is considered old growth.

Much of the coastal plain of the southeastern U.S., with its deeper soils, was then converted to agriculture. Meanwhile, to the north, pines in the uplands grew on shallower, rockier soils, and land use there shifted more to widespread free-range grazing. Later, as fires were suppressed to favor the recovery of forests and woodlands, pine forests largely gave way to oak and other hardwoods, and

**Prescribed fire in Florida's  
Blackwater State Forest.**

Photo © Vernon Compton





**Jane  
Fitzgerald**

Reeds Spring, Missouri  
[jfitzgerald@abcbirds.org](mailto:jfitzgerald@abcbirds.org)

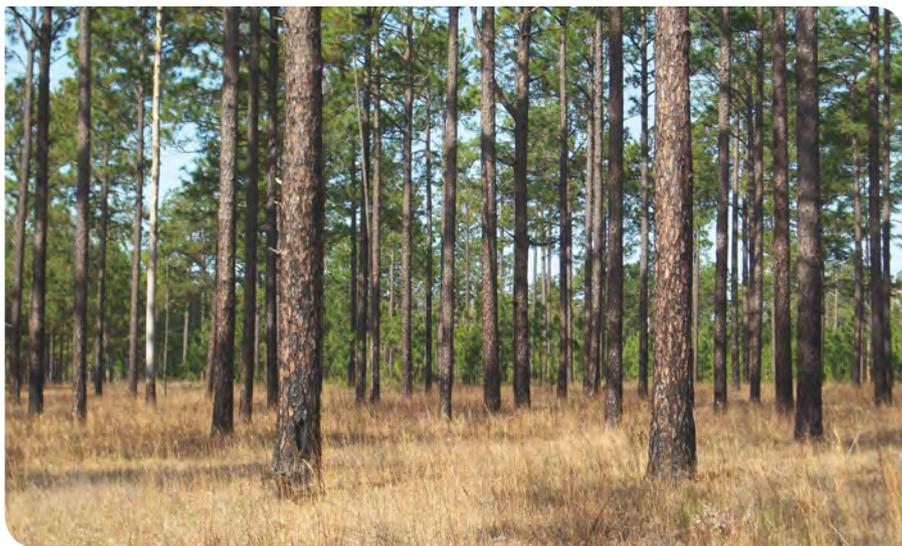
**Keith  
McKnight**

Tyler, Texas  
[steven\\_mcknight@fws.gov](mailto:steven_mcknight@fws.gov)

**Catherine  
Rideout**

Atlanta, Georgia  
[Catherine\\_Rideout@fws.gov](mailto:Catherine_Rideout@fws.gov)

# Pine Woodlands



This open pine forest at Fort Polk in Louisiana has been maintained with a regular regimen of prescribed burns that clear out the woody undergrowth and promote a diversity of grasses and forbs to grow. This—but with much larger trees—is what the first European visitors to the Southeast would have seen, and what birds like Red-cockaded Woodpecker depend on. Photo © Keith McKnight



Without regular fire, Southeastern pine forest—like this one in Pushmataha County, Oklahoma—quickly develops a dense, woody understory. This leads to hotter, much more destructive fires that can kill the pines. Photo © Keith McKnight

the grasses and wildflowers in the understory were smothered under shade and thick layers of fallen leaves. In areas where pines were still valuable, faster-growing species often were planted in plantations and managed with short-rotation clear-cuts and mechanical scarification of the soil to prepare the sites for planting.

Several species of birds closely associated with the pine woodlands suffered drastic declines after the big trees were cut and fire suppression limited grassy growth in the understory. The Red-cockaded Woodpecker, which nests in cavities of older pines, is now listed by the U.S. Fish & Wildlife Service as endangered. Viable populations exist only where fire has been restored and management favors the growth of large pines in open woodland settings. Brown-headed Nuthatch, a pine obligate, and Bachman's Sparrow are on the Partners in Flight WatchList because they are considered to be highly vulnerable due to a combination of small and declining populations, limited distributions, and high threats throughout their ranges. The Northern Bobwhite, which once flourished in the grassy understory of the coastal plain, has plummeted in numbers. And the mighty Ivory-billed Woodpecker is now nearly if not actually extinct.

## The Beginnings of Conservation

Luckily for the birds, conservationists began to see the need to restore native pine woodlands, although it took a while for the idea to catch on. Herbert Stoddard, in his landmark 1931 book, *The Bobwhite Quail: Its Habitat, Preservation, and Increase*, recognized the critical role that fire plays in maintaining the grassy understory of longleaf pine systems. Yet it was not until the 1980s and 1990s that the use of fire as a management tool became widely accepted among conservationists and managers. Listing of the Red-cockaded Woodpecker as federally endangered in 1970 played a key role in increasing interest in fire-driven

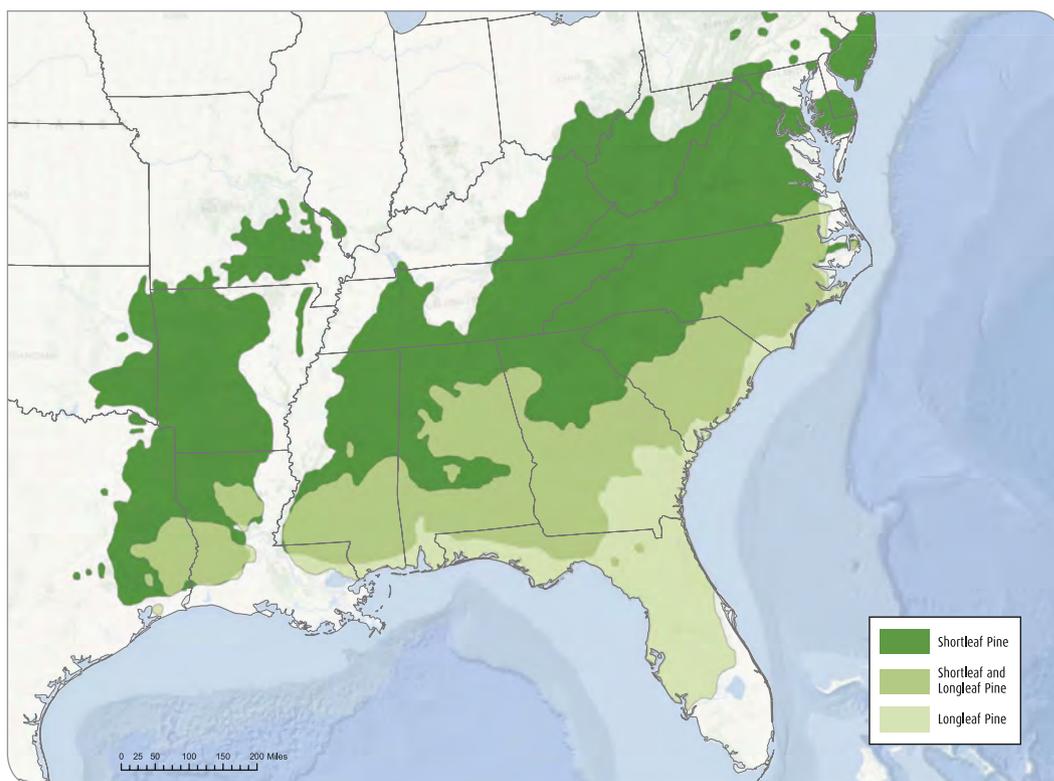


Northern Bobwhites, like many other species, require fire-maintained habitats.

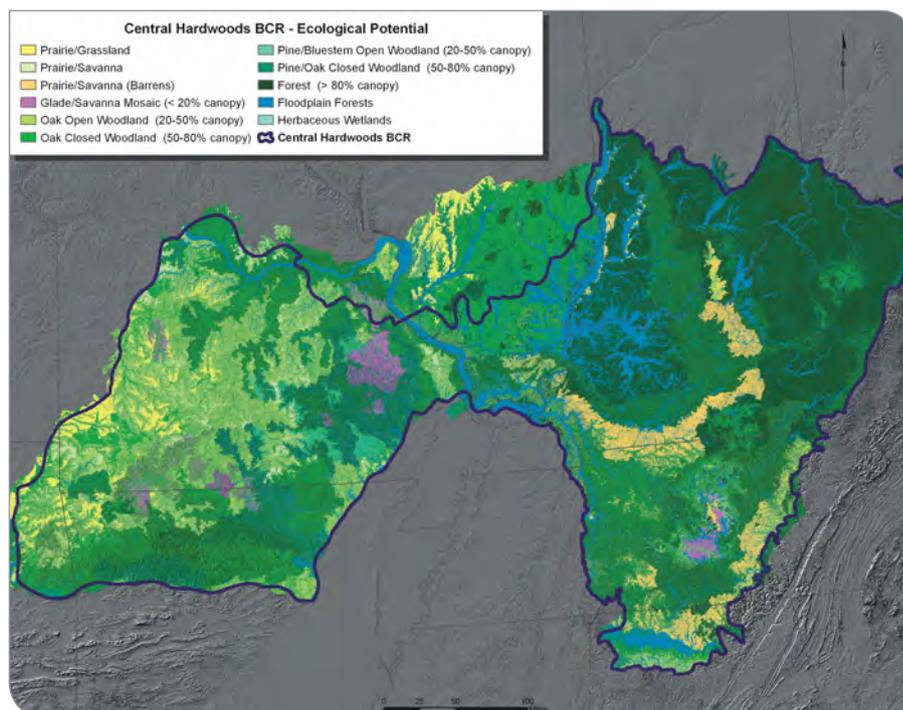
Photo © Gary Kramer

pineland restoration projects. The development of recovery plans for the species, beginning in 1985, helped identify the scale at which restoration should occur and the structural characteristics that managers need to work toward. For example, the Ouachita National Forest in the Interior Highlands of Arkansas, with a small population of the woodpecker, committed to the restoration of some 250,000 acres of shortleaf pine–bluestem ecosystems with the revisions of their forest plans in 1994, 1996, 2002, and 2005.

Another important step forward was the establishment of the The Longleaf Alliance in 1995. It had become apparent that interest in the longleaf ecosystem and the tree itself was growing rapidly, but there was no outlet for ecologists, foresters, wildlife biologists, landowners, and land managers seeking information or a means to distribute known information on longleaf conservation and management. The main purpose of The Longleaf Alliance is to coordinate a partnership between private landowners, forest industries, state and federal agencies, conservation groups, researchers, and other enthusiasts interested in managing and restoring longleaf pine forests for their ecological and economic benefits. In 2007, under the leadership of the U.S. Forest Service, the U.S. Department of Defense, and the U.S. Fish and Wildlife Service, a Regional Working Group of diverse organizations (including The Longleaf Alliance) was formed to develop America's Longleaf Restoration Initiative. The vision of this partnership is to strive toward creating viable longleaf pine ecosystems with the full spectrum of ecological, economic, and social values. Multiple organizations and



This map shows the likely historic (pre-European settlement) distribution of shortleaf and longleaf pine forests in the southeastern U.S. and is based on information at [esp.cr.usgs.gov/data/little/](http://esp.cr.usgs.gov/data/little/)



Based on geology, soil patterns, and topography, this map depicts the location of pre-European-settlement habitats, including those dominated by shortleaf pine (i.e., “pine-bluestem” and “pine-oak”). Central Hardwoods Joint Venture planners use this map to help identify where restoration of natural communities can be most successful. Map © Lee O’Brien, Todd Farrand-Jones, and Jane Fitzgerald

# Pine Woodlands

individuals participate in this voluntary partnership.

Following in the footsteps of The Longleaf Alliance and the America's Longleaf Restoration Initiative, the Shortleaf Pine Initiative was launched in the spring of 2013 as a collaborative and strategic response to the dramatic decline of shortleaf pine forests and associated habitats. American Bird Conservancy staff members also lead a partnership, the Interior Highlands Shortleaf Pine Restoration Initiative, focused on the restoration of shortleaf pine-bluestem and pine-oak woodlands in the Ozark/Ouachita regions of Arkansas, Missouri, and Oklahoma, and have worked with community ecologists in the region to develop a set of "desired future conditions" for both public and private land.

Local implementation teams in Texas and Louisiana, formed in support of America's Longleaf Restoration Initiative, have been working for several years to restore longleaf pine forests, encourage and facilitate frequent prescribed burning, and ensure that sufficient sources of understory herbaceous plant materials are available for conservation efforts. In 2013, these implementation teams accomplished more than 190,000 acres of longleaf conservation across the two states. Bird enthusiasts can experience first hand the results of longleaf pine restoration and management in the national forests of east Texas (especially the Angelina and Sabine) and Northwest Louisiana (Kisatchie National Forest, especially the

Calcasieu District, Vernon Unit).

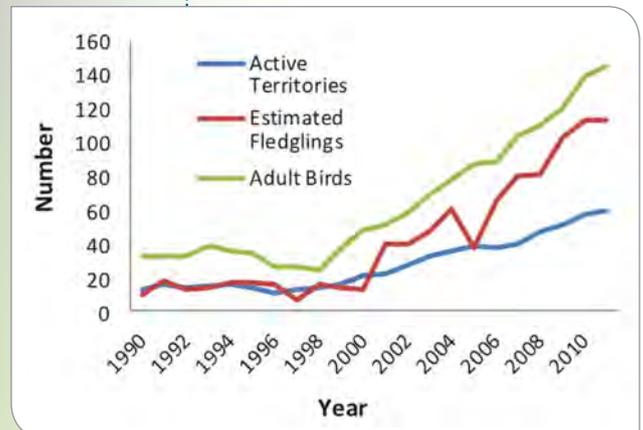
State and local implementation teams in the East Gulf Coastal Plain, in Louisiana, Mississippi, Alabama, and Florida, have also accomplished a number of activities to restore and maintain longleaf pine forests. One local implementation team, the Gulf Coastal Plain Ecosystem Partnership, consists of partners who agree that increasing the acreage of longleaf pine through planting is a priority goal toward the recovery of the longleaf pine ecosystem. However, an equally high priority is increasing on-the-ground management, especially prescribed fire and invasive species control, to restore and maintain longleaf pine forests and the important understory component found in the system. In 2013, the team conducted prescribed burns on more than 64,000 acres, completed 767 acres of invasive species control, and mechanically treated more than 19,000 acres to improve habitat.

Fortunately, in 2009, Congress provided national forests with an opportunity to secure significant funding for woodland restoration work through the Collaborative Forest Landscape Restoration Program. The program, administered by the U.S. Forest Service, is intended to encourage collaborative, science-based ecosystem restoration on and around national forest lands. Re-establishing natural fire regimes to reduce the inci-

Because natural forest fires are suppressed across most of the U.S., Red-cockaded Woodpeckers now depend heavily on people to actively manage their habitat.

Photo © Jacob Spendlow

Calcasieu District, Vernon Unit).



Red-cockaded Woodpecker numbers within Ouachita National Forest increased markedly when regular prescribed burns and other management practices were increased near the turn of the 21st century. Image © Ouachita National Forest, USDA Forest Service

dence and negative consequences of uncharacteristically large and hot wildfires also is part of the goal. As a result, up to \$40 million can be appropriated annually from 2009–2019, with up to \$4 million a year available for any particular project. The program now is funding hundreds of thousands of acres of pine woodland restoration in the following national forests: Ouachita (Arkansas and Oklahoma), Mark Twain (Missouri), and Osceola (Florida). Additional Forest Service funds have been awarded to pine woodland restoration in the Ozark–St. Francis (Arkansas) and the DeSoto (Mississippi) national forests as well.

## Joint Ventures: Using Science to Deliver the Right Conservation in the Right Places

Cooperative, regional bird conservation partnerships, known as Migratory Bird Joint Ventures, work to conserve habitat for the benefit of birds, other wildlife, and people. Since they were first established in 1986, joint ventures have grown to cover nearly all of the U.S. and Canada, and much of Mexico. These self-directed partnerships address priority bird conservation issues within their geographic areas.

The East Gulf Coastal Plain and Lower Mississippi Valley joint ventures both focus on pine woodland restoration on the coastal plain, and the Lower Mississippi Valley and Central Hardwoods joint ventures share responsibility for advancing bird habitat conservation through partnership with other organizations within the interior highlands. Joint venture partners have developed practical conservation strategies by using the latest scientific understanding of bird habitat needs in order to identify and target the most appropriate locations for action in pine savannah habitats. At the heart of these strategies are a few basic tenets: These most imperiled bird species generally require fairly large tracts of suitable forest habitat, relatively large and mature trees, and a canopy cover that

allows sunlight to reach the forest floor, resulting in a diverse understory.

A cynic could be excused for thinking this alphabet soup of agencies and programs is just a lot of bureaucracy, but these partnerships among conservation agencies and organizations are vital if we are to achieve greater efficiency, communication, and coordination. Joint ventures also work to develop and implement research and monitoring programs and to engage the general public through communication, education, and outreach. Successful conservation requires passion and engagement from all of us.

## Good News for Birds and Birders

With so much work going on, not only can we expect a brighter future for pine-woods birds, but birders should also have a much easier time finding these wonderful and ecologically unique creatures. For instance, Ouachita National Forest in Arkansas has seen a dramatic increase in Red-cockaded Woodpecker numbers since management for them began, and visitors can witness the transformation themselves, both in the graph in this article, and on the ground. The U.S. Fish and Wildlife Service's most recent iteration of "Birding in the United States: A Demographic and Economic Analysis" continues to show a high interest by Americans in birding, with the South demonstrating the highest interest. Many birders are now close to areas where pine woodland is being restored. This could be truly a "win-win". But restoration takes money, and birders who

value the recovery of declining species need to make their support known not only to their elected officials, but also to the agencies and organizations that must continue to choose among competing resource needs. So speak up and get out...out birding, that is! 🌍

## Read More

Cox, J. and C. Jones. "Bachman's Sparrow and the Order of the Phoenix", *Birding*, May/June 2008, pp. 38–45. Available online: [aba.org/birding/v40n3p38.pdf](http://aba.org/birding/v40n3p38.pdf)

Eberly, C. "Defending the Steppingstones of Migration", *Birding*, October 2002, pp. 450–458. Available online: [tinyurl.com/Eberly-Steppingstones](http://tinyurl.com/Eberly-Steppingstones)

Hess, P. "Weapons and Woodpeckers", *Birding*, January 2012, p. 25. America's Longleaf Initiative.

[americaslongleaf.org](http://americaslongleaf.org)  
Central Hardwoods Joint Venture. [chjv.org](http://chjv.org)  
East Gulf Coastal Plain Joint Venture. [egcpjv.org](http://egcpjv.org)  
Gulf Coastal Plain Ecosystem Partnership.

[longleafalliance.org/gcpep/about](http://longleafalliance.org/gcpep/about)  
Longleaf Alliance. [longleafalliance.org](http://longleafalliance.org)  
Longleaf Partnership Council's 2013 Report.

[tinyurl.com/LPC2013report](http://tinyurl.com/LPC2013report)  
Lower Mississippi Valley Joint Venture (LMJV).

[lmjv.org](http://lmjv.org)  
LMJV's "Open Pine Landbird Plan".

[tinyurl.com/LMVJV-OPP](http://tinyurl.com/LMVJV-OPP)  
Migratory Bird Joint Ventures. [mbjv.org](http://mbjv.org)  
National Bobwhite Conservation Initiative.

[bringbackbobwhites.org](http://bringbackbobwhites.org)  
Partners in Flight WatchList.

[partnersinflight.org/WatchListNeeds/](http://partnersinflight.org/WatchListNeeds/)

**Brown-headed Nuthatch is a pine obligate. That means it can live nowhere else but pine forest, such as is found in Point Lookout State Park in Maryland, where this photo was taken.**

Photo © Bill Hubik

