PARTNERSHIP IN ACTION

International Paper supports pioneering forest management techniques.

For more than 40 years, The Nature Conservancy has worked with Memphis-based International Paper Company (IP), an industry leader in pulp and paper production and renewable, fiber-based packaging. The company also supports innovative forest management tools and technologies developed to help protect our planet.

“International Paper supports our place-based conservation projects as well as the development of innovative management techniques intended to have an impact on forest ecosystems around the world,” says Terry Cook, TNC’s state director in Tennessee.

Recently, this took shape in the form of support for projects located outside of IP’s supply chain in the name of mitigating threats to forests everywhere. Specifically, IP dedicated resources towards TNC’s Reduced Impact Logging for Carbon (RIL-C) pilot projects in Gabon and Indonesia. RIL-C provides a menu of responsible practices that can help managers improve carbon sequestration in working forests. The Conservancy also tested bioacoustics CONTINUED ON PAGE 3
As we emerge from springtime—a time of growth and renewal—we continue to grapple with a health crisis that has brought the world to a stand-still. As we continue to adjust and implement social distancing practices, more people than ever are seeking nature to alleviate stress and safely move around.

During this time, most of us are giving up something we were planning to do, at least temporarily. For our staff in Tennessee, it was celebrating a big milestone—the successful protection of 400,000 acres since TNC opened its doors here in 1978. It is a wonderful testament to the generous support and leadership of so many.

It is easy to become frustrated by this unexpected pandemic that has paralyzed our planet. However, I mostly feel grateful—for my family, my home, good friends and for a career dedicated to protecting something that is so important to humankind.

While difficult, this historic event also shed a positive light on humanity. We’ve witnessed how the world will take pause and sacrifice a lot—on a planetary scale—on behalf of its most vulnerable inhabitants. This is what is on my mind when I think about another global crisis, climate change, which threatens the ecosystems that make the world habitable for each and every one of us. I have been heartened by this glimpse into what might be possible if we all truly make the health of our planet a priority. Nature would thrive, and so would we.

Thank you for supporting our efforts to protect the lands, waters and wildlife found in Tennessee. You have always been there for nature. I hope that after this crisis passes, and it will, that we remember all of the ways in which nature helped us make it through this difficult time—whether through daily walks, time in the garden, on a family hike or in another way. Then let’s work together to continue to protect Tennessee’s lands and waters for nature and people.

Be well. I look forward to seeing you outside soon.

Terry Cook
State Director
monitoring, which analyzes a forest’s sounds before and after logging occurs.

So far, both approaches show promise for protecting biodiversity and keeping working forests working while balancing the economic and environmental goals of local communities. Cook adds, “We appreciate that IP supports sustainable forestry outside of the company’s four walls while acting as a responsible steward of the fiber they source directly.”

According to James McDonald, director of global citizenship at IP and member of TNC’s Tennessee Board of Trustees, championing responsible forest management practices like RIL-C contributes to the company’s commitment to sustaining forests and improving the planet.

“The Conservancy is proving that RIL-C can reduce up to 50% of CO2 emissions in a commercial forest operation,” says McDonald. “It shows that even subtle changes like reducing wood waste, building fewer roads and leaving more trees can make a positive impact. Along with the wood that is harvested, carbon savings becomes another important commodity.”

**Act Two in the Appalachians**

With additional support from IP, TNC is scaling progress made in Indonesia and Gabon in other geographies, including in the Central Appalachians region of the United States, which includes Tennessee. During this second phase, TNC is integrating RIL-C and bioacoustic monitoring with current Forest Stewardship Council (FSC®) certification standards to establish a next generation of climate-smart, sustainable forest products.

Efforts in the Central Appalachians will also advance the Family Forest Carbon Program (FFCP). Created by TNC and the American Forest Foundation, the FFCP incentivizes individual and family forest owners to adopt practices that improve forest health and increase carbon sequestration. According to the U.S. Forest Service, approximately 9.5 million acres of forest are family-owned in Tennessee.

“Families own 290 million acres of America’s forests—more than state or federal governments and the forest industry, but cost can be a barrier to sustainably managing forestland,” says Sophie Beckham, IP’s chief sustainability officer. “We applaud innovative approaches that engage family forest owners in sustainable management. Our business depends on the sustainability of forests, and we are proud to support the FFCP to ensure healthy and productive forest ecosystems for generations to come.”

**Vision 2030**

Support for the work in Gabon and Indonesia, and in the Appalachians, advances IP’s Vision for 2030, which recognizes that significantly reducing carbon pollution by 2030 and maintaining a global temperature below 2 degrees Celsius is necessary to maintain the health of people and nature in the long-term. Recent research published by TNC and 21 other institutions in Science Advances, demonstrates that nature-based solutions like RIL-C can help absorb one-fifth of the carbon pollution produced in the United States—30 percent more than previously estimated.

James McDonald adds, “Our Vision 2030 goals demonstrate International Paper’s commitment to building a better future for people and the planet. Whether sourcing fiber from sustainably managed forests or restoring one million acres of ecologically significant forestland, we are glad to work in partnership with TNC on natural solutions that achieve these important goals.”

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**Enduring Partnership**

For more than 40 years, International Paper has supported TNC’s work in Tennessee and around the world. Highlights include:

- Donating 218,000 acres of forestlands across ten states in the largest private conservation transaction in the history of the south.
- Joining forces with the National Fish and Wildlife Foundation to establish the Forestland Stewards Partnership which advances efforts to restore shortleaf pine forest, including the return of natural fire, at public and private lands on the Cumberland Plateau and reestablish natural flows through dam removal in rivers and streams around Tennessee.
- Supporting the Savannah River Clean Water Fund—the first of its kind in Georgia or South Carolina—to convene water utilities, conservation organizations and private landowners around protecting forests to benefit drinking water in region.
Taking stock of the University of Tennessee’s forests

In April, Nature Conservancy and University of Tennessee (UT) staff concluded an ecological inventory at a test plot near the UT Institute of Agriculture’s (UTIA) Oak Ridge Arboretum. The data will inform the process of seeking Forest Stewardship Council (FSC®) certification—the most rigorous available for conserving working forests—for approximately 11,400 acres managed by UTIA.

The plot will also be used by students, researchers, professors and others to learn about measuring and tracking forest health and carbon sequestration over time.

“We were glad to work with Panther Creek, a local company that boasts a team of foresters trained at Tennessee state forestry schools like UTIA,” says Trish Johnson, TNC’s director of forest conservation in Tennessee. The partners are also engaging foresters from another firm, TerraCarbon, in quantifying and modeling atmospheric carbon stored in the UTIA forest.

The combined work of these experts will advance three primary objectives of the TNC-UT partnership:

- Collect baseline data related to tree species and size, invasive plants, dead and downed wood, the presence of seedlings and other characteristics to guide a management plan that meets FSC® certification requirements.
- Pursue calculations to predict future growth and carbon sequestration rates to inform an emerging market where companies purchase carbon credits from willing sellers to offset their carbon dioxide emissions.
- Provide models for UTIA researchers, professors and students to utilize for building and sharing knowledge on carbon sequestration and climate smart forestry applications.

According to Johnson, successfully assessing the forest’s ecological health and economic productivity over time will involve periodically collecting data, or Key Ecological and Economic Attributes (KEEA), that tracks a forest’s life history, ecological processes, composition and/or structure.

“Carbon markets have dramatically raised the expectations of forest inventory, in terms of accuracy and precision,” says David Shoch, a forester with TerraCarbon. “Unlike commercial timber that is hauled to a mill and weighed on a scale, carbon values stay on the stump and so it’s critical that we get our estimates right.”

The work advances an agreement, signed at the end of 2019, which established UT as the first academic institution to enroll in TNC’s Working Woodlands program. The partners hope to achieve official FSC® certification by early 2021.

“This partnership between TNC and UT provides an opportunity to test, improve and promote approaches that can benefit millions of acres of Tennessee’s public and private forests,” adds Johnson. “Because of this project, UTIA will have more data on its forests than they have had in more than 20 years to fuel our understanding about how improving the health and condition of the forest over time can yield economic benefits to landowners while reducing carbon in our atmosphere.”
CHESTNUT MOUNTAIN JOINS THE FIRE LEARNING TRAIL

With assistance from the Consortium of Appalachian Fire Managers and Scientists, The Nature Conservancy is developing its portion of a Fire Learning Trail on the Cumberland Plateau of Tennessee that will include a “stop” at our Bridgestone Nature Reserve at Chestnut Mountain.

“The trail will include a self-guided tour and interpretive signs that takes participants through the heart of the shortleaf pine restoration work taking place at the Reserve and on nearby public lands,” says Katherine Medlock, TNC’s East Tennessee program director.

According to Medlock, the trail will also introduce visitors to the important role that fire plays in the health of East Tennessee’s forests.

Fire Learning Trails have been successful throughout the Appalachian region in educating and inspiring participants through a combination of physical signs and technology such as podcasts.

Medlock adds, “Our goal for the Fire Learning Trail on the Cumberland Plateau is to share successful examples of woodland restoration and showcase how land managers can restore woodlands throughout the region.”

The Nature Conservancy and The Conservation Fund (TCF) continued to team up in the name of protecting ecologically diverse landscapes that connect with other public and private conservation lands in Tennessee.

As 2019 came to a close, TNC and TCF co-purchased 75 acres of beautiful mountain land in Johnson County at “Tri-Corner” where Tennessee, Virginia and North Carolina meet. The property, a small but critical in-holding within the Cherokee National Forest, overlooks sweeping views of North Carolina’s Pond Mountain Game Lands. The partners will eventually transfer the property to the U.S. Forest Service to become part of the Cherokee National Forest.

This spring, TNC and TCF permanently protected, and transferred, approximately 341 acres in East Tennessee to the Tennessee Department of Environment and Conservation to be added to the Justin P. Wilson Cumberland Trail State Scenic Trail. When complete, the trail will extend more than 300 miles from Cumberland Gap National Historical Park to the Chickamauga & Chattanooga National Military Park. This newly protected property is also part of an area ranked “highly above average” for climate resiliency and provides critical habitat to dozens of native species.

TO LEARN MORE VISIT nature.org/tnwoodlands
Each winter I spend most of January and February surveying bats in approximately 50 caves around the state. Tennessee boasts an incredible subterranean landscape that doesn’t exist anywhere else in the country.

Our cave hibernating bats are facing an incredible threat known as white-nose syndrome (WNS), a fungus against which few have immunity. WNS has been in North America for nearly 15 years and in Tennessee for 10. It has killed millions of bats in North America. We are still working with partners to understand the disease’s full impact as well as appropriate responses.

Although we haven’t completed the full data analysis for the winter 2020 bat surveys, three general observations stand out. First, I noticed that larger species like big brown bats seemed to fare well during the warmer and wetter winter. These bats were likely heading outdoors to find food when temperatures allowed, an observation confirmed by colleagues at the University of Tennessee who are studying winter foraging behavior of Tennessee bats. While not ideal for all species, this might help certain cave hibernating bats build energy stores key to reducing the impacts of WNS. It’s not a long-term solution, but we’ll gladly take any additional hope of survival we can find.

On the flipside, the additional rains flooded some caves, which certainly impacts successful hibernation at those sites. While wetter weather may have negatively impacted bat hibernation in some caves, heavy rains brought in tremendous carbon rich waters that seemed to serve as a boon for aquatic cave life. Populations of southern cave fish, Tennessee cave salamanders and other aquatic cave life like amphipods and isopods seemed more abundant compared with other years.

Aside from caves, traveling around Tennessee to survey them brought my attention to the impact the emerald ash borer has had on our state’s ash trees. Similar to WNS, the emerald ash borer is an invasive species first identified in Tennessee in 2010. It has been wreaking havoc ever since. The eastern highland rim escarpment areas of Tennessee’s Upper Cumberland region seem to have been especially hard hit, with noticeable bark loss over the winter. I worry that this marked change in just one year’s time is indicative to what we might see in other forests around the state.
TNC Welcomes New Board and Staff Members

James McDonald is the director of global citizenship for International Paper. He works closely with partners, and internally with manufacturing, marketing and sales teams, to develop and implement programs and policies that support IP’s vision to be among the most successful, sustainable and responsible companies in the world. James earned his bachelor's in International Studies, with an emphasis in Eastern European and Soviet Foreign Policy, from Rhodes College. He and his wife, Whitney, have three children Clara, Thompson and Cole.

David Miller retired in 2016 after serving as president and chief operating officer of Community Health Systems (CHS), one of the largest hospital systems in the United States. David continues as a retained consultant to CHS, part of a distinguished career that includes executive leadership roles in three publicly traded healthcare companies. David received his bachelor’s in economics from Virginia Military Institute and an MBA from the University of Virginia’s Darden School. Following graduate school, David served on active duty before receiving an Honorable Discharge from the USAF reserve with a rank of Captain. He and his wife, Helen, have two grown sons.

Steven Gervais, TNC’s new director of finance and operations in Tennessee, has also supported TNC programs in Oregon, New Mexico, Wyoming, Minnesota and the Arlington, Virginia headquarters. Prior to TNC, Steven worked in non-profit, for-profit and socially responsible investment settings. Originally from Maine, he developed an appreciation for the outdoors and conservation early in life, which continues today. Steven is a graduate of the Pennsylvania State University’s Schreyer Honors College where he earned a B.S. in Accounting and served as a teaching assistant for an Environmental Studies course.

Britt Townsend, TNC’s new conservation forester in Tennessee, discovered nature in the hills of East Tennessee. After moving away, she continued to visit the Appalachians and Cumberland Plateau. Prior to returning permanently to Tennessee, Britt worked as a forester at American Forest Management, for a small forestry technology company, as owner of her own forestry and GIS consulting firm, and as a teacher to a new generation of foresters at North Carolina State University. Britt has a B.S. in geography from the University of South Carolina and a master’s in forestry from the University of Maine.

Zach Luttrell recently assumed a shared position as TNC’s director of agriculture in Tennessee and Kentucky. Zach brings a wide array of experience, including a lifetime spent on his family farm in Mississippi. Most recently, Zach served as principal consultant of Straightrow LLC, where he built relationships with AgTech and focused on helping startups in the regenerative ag space commercialize and scale. Zach has a B.S in Marketing with an Agribusiness emphasis from the University of Illinois and a Juris Doctor from the University of Mississippi. He is based in Jackson, Tennessee.
Join the Legacy Club. It’s easy!

Your planned gift to The Nature Conservancy makes a lasting impact on our natural world in so many ways—all while taking care of loved ones and/or other priorities.

Our Legacy Club members also enjoy invitations to exclusive trips and events, a biannual newsletter, TNC’s annual report and other benefits. Your generosity makes a world of difference.

Contact TNC’s director of philanthropy, Britt Moses (britt.moses@tnc.org) or visit nature.org/legacyclub to learn more.

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