



FZ[eSd]UW SeadY] S*kbgT]eZW[FZW [V]XBcXa`S1Ha%#%, an exclusive benefit for members of The Wildlife Society, www.wildlife.org.

FZ[eM] fZSeTW bch]W to the Sustainable Forestry Initiative for informational and educational use. i Za`Mbaef` Ya` Snon-SFI i WefVidge` YXdUa_ WLS^adbca_ affa` S`bgbaew]ebaf]Wg` WUabk]Yz` Si eS V]Wg]dW bW] [ee]a` Xa_ fZW]gT]eZ]eS` VadY] S`SgfZac]A`S`# FZW [V]XBcXa`S1Ha%#% 4Sdai B`SUMEg]fV`"14VZWSI? 6 S`*#&GE3ž

Conservation through Collaboration

A NOVEL PARTNERSHIP ENSURES A PLACE FOR WILDLIFE IN PRIVATE, WORKING FORESTS

By Darren A. Miller, James F. Bullock, Jr., William R. Murray, Cindy K. Dohner and Craig Czarnecki



Credit: Darren Miller

▲ Conservation efforts on private lands are critically important for conservation of at-risk species. This loblolly pine stand in Louisiana, on land owned and managed by Weyerhaeuser Company, is being managed for the federally endangered red-cockaded woodpecker under a safe harbor agreement. This photo was taken in late winter after a prescribed fire.

Forests provide critical ecosystem services. They offer clean water and carbon storage. They provide wildlife habitat and renewable forest products. They also provide recreational opportunities, spiritual renewal and cultural values for tens of millions of people.

For the past century, forest cover has remained stable in the United States — thanks largely to private landowners. About 180 million hectares — 58% of the nation’s forests — are in private hands (Oswalt, et al. 2014). Income from forest management helps forestall conversion to other uses, allowing landowners to keep the land forested (National Commission on Science for Sustainable Forestry 2005) while providing conservation benefits (Demarais et al. 2017, Miller et al. 2009).

These working forests are vital for the conservation of biological diversity, including at-risk and listed species, including 60% of species listed under the Endangered Species Act (Robles, et al. 2008). Building trust and understanding among government agencies, conservation stakeholders and forest owners will improve collaboration and conservation outcomes for at-risk species. This includes an understanding of species’ conservation needs by landowners and an appreciation by public agencies and conservation stakeholders of how active forest management facilitates conservation.

Today, private landowners are collaborating to conserve at-risk and listed species under an approach called “Conservation Without Conflict.” Stakeholders have

established a national coalition of the same name comprised of landowners, state and federal agencies, NGOs, industry representatives and others to work together on innovative, nonregulatory approaches to conservation. Its cornerstones are trust between the public and private sectors and a commitment both to conservation and to keeping working lands working.

There are examples of success from such collaborations. The first example — a 1,505-hectare conservation easement on property managed by Resource Management Service, LLC (RMS) — is a step toward the U.S. Fish and Wildlife Service goal of conserving 3.2 million hectares of longleaf pine (*Pinus palustris*) by 2025. This easement will benefit multiple species adapted to open pine forest conditions



such as the gopher tortoise (*Gopherus polyphemus*) and reticulated flatwoods salamander (*Ambystoma bishopi*). As another example, the Kirtland's warbler (*Setophaga kirtlandii*) has recently been delisted due in large part to a public-private collaboration.

Successes like these explain why tenets of Conservation Without Conflict underpin a novel partnership established by the National Alliance of Forest Owners (NAFO), a national advocacy organization for large forest owners across the country. Called the Wildlife Conservation Initiative (WCI), it includes NAFO members, the U.S. Fish and Wildlife Service and other federal agencies, state wildlife and forestry agencies and private organizations such as the Wildlife Management Institute, the National Council for Air and Stream Improvement, Inc. (NCASI) and the Sustainable Forestry Initiative. Owning and managing more than 18 million hectares of working forests across the nation, NAFO members bring their collective landscape scale, a commitment to conservation and the assurance of sustainable management.

A common vision

The partnership is built upon trust and around a common vision for collaborative wildlife conservation revolving around three shared tenets. Privately owned working forests are critical for conservation success. Science will guide the effort. And active forest management is a proven conservation tool.

The Service has acknowledged the importance of private forest management for the conservation of several species, including the Louisiana black bear (*Ursus americanus luteolus*), northern long-eared bat (*Myotis septentrionalis*) and Pacific fisher (*Pekania pennanti*). It has also acknowledged the valuable role of forestry best management practices (Cristan, et al. 2018) to conserve aquatic species in recent proposed and final rules in the South Atlantic-Gulf region, including the trispot darter (*Etheostoma trisella*), candy darter (*Etheostoma osburni*), Black Warrior waterdog (*Necturus alabamensis*) and Atlantic pigtoe (*Fusconaia masoni*).

Building on a successful history of collaborative conservation, WCI provides an opportunity to coordinate this approach across multiple Service regions. Implementing candidate conservation plans with assurances for Pacific fishers in Washington, Oregon and California is one collaborative approach that can achieve real success. In Alabama, the Service is working with private landowners to increase



Credit: Darren Miller

surveys for aquatic and terrestrial species, improve stream crossings and obtain information for species status assessments for both at-risk and listed species. Private forest owner RMS is working with the Service to reintroduce the Alabama pearlshell mussel (*Margaritifera marrianae*), allowing access to its lands to identify habitat and reintroduce the mussel in waters bounded by private land. Other WCI efforts include a project on mammals and riparian-associated species in Maine and on avian species in the Great Lakes region.

▲ Gopher tortoises are associated with open pine forests in the southeastern U.S. and are proposed for listing under the Endangered Species Act. Private, working pine forests can be managed to provide appropriate conditions for gopher tortoises.

Showing our work

Over the past year, NAFO member companies and WCI external partners have met with the Service to collaboratively develop a framework to strengthen the science behind at-risk and listed species conservation

▼ This loblolly pine stand is being managed for gopher tortoises in southeastern Mississippi.



Credit: Darren Miller



Credit: Jami Nettles

▲ Forestry best management practices are implemented at high rates on private lands and are designed to protect water quality. Streamside management zones, pictured here in Mississippi, not only protect water quality but conserve riparian areas and benefit aquatic biodiversity.

▼ Working forest landscapes, such as this one in West Virginia, provide multiple ecological, environmental, recreational and economic benefits.

on private forests, including setting up research and demonstration sites in multiple Service regions.

The partners agreed to work toward efforts to help inform decisions around potential Endangered Species Act actions on mutually selected species. These efforts incorporate sustainability and economic considerations and can apply to a suite of forest conditions and landscapes. Research sites will serve as demonstration areas, with outreach and education programs to show the value of managing forests for wildlife on working forests. Partners have also agreed this work needs to be fully collaborative, ensure a better understanding of the conservation benefits of working forests, help forest landowners understand the Service's constraints and responsibilities and foster trust between the Service and private forest landowners.

Participants in WCI have identified species of interest in the North Atlantic-Appalachian, South Atlantic-Gulf, Mississippi Basin and Great Lakes regions and will overlay known distributions with working forest landscapes to select research landscapes. Potential North Atlantic-Appalachian species include the Canada lynx (*Lynx canadensis*), golden-winged warbler (*Vermivora chrysoptera*), wood turtle (*Glyptemys insculpta*) and small-whorled pogonia (*Isotria medeoloides*). Great Lakes species of interest include the Canada lynx, Blanding's turtle (*Emys blandingii*), wood turtle, golden-winged warbler, Kirtland's warbler and state and federally listed mussel species in Michigan, Minnesota and Wisconsin. In the South Atlantic-Gulf and Mississippi-Basin regions, the focus will be on the gopher tortoise (*Gopherus polyphemus*) and associated at-risk forest species such as the Carolina gopher frog (*Lithobates capito*), eastern diamond-back rattlesnake (*Crotalus adamanteus*), southern hognose snake (*Heterodon simus*) and Florida pine snake (*Pituophis melanoleucus mugitus*). NAFO members are additionally working with the Service's Ecological Services Field Office in Daphne, Alabama, to identify conservation opportunities for numerous aquatic species.

An expanding effort

We believe this effort will continue to expand conservation in forests across the United States. All of us engaged in sustainable forest management have common objectives — maintaining forested landscapes and helping conserve species that use these landscapes. Formalizing a collaborative framework to understand the value of private, working forests for conservation and to facilitate and maintain cooperation between the Service and private landowners is needed everywhere.

Conservation Without Conflict and WCI are interrelated, collaborative efforts, much like past efforts that have successfully conserved at-risk and recovered species, including the Louisiana black bear, which was delisted thanks to partnerships to create forest corridors on private lands connecting critical areas.

The large-scale conservation possible under WCI provides an opportunity for collaborative conservation across millions of hectares of private, working forests. We believe this offers one of the greatest opportunities for species conservation since sportspeople came together a century ago to



Credit: Darren Miller



conserve iconic species including white-tailed deer (*Odocoileus virginianus*), elk (*Cervus elaphus*), pronghorn antelope (*Antilocapra americana*), bison (*Bison bison*) and wild turkey (*Meleagris gallopavo*).

Benefiting stakeholders

While the focus is on benefiting at-risk species and communities, collaborative conservation benefits stakeholders as well. By approaching conservation in partnership with them, the Service's policies and ESA actions are better informed, more effective and provide incentives for other stakeholders to be proactive in conservation actions.

When science supports benefits of active forest management for at-risk and listed species, including the value of forestry BMPs and forest certification, the Service can provide private landowners greater management and regulatory flexibility for actively managed forests. As better relationships develop among stakeholder organizations on projects across the country, communication and information sharing improves, long-term commitments provide certainty for conservation strategies and collaboration produces more effective conservation outcomes.

This success means that we all win — the private forest community, natural resource professionals, the public that uses and enjoys our wildlife resources and, of course, the diverse wildlife communities that call forests home. ■

The findings and conclusions in this article are those of the authors and do not necessarily represent the views of the U.S. Fish and Wildlife Service.



Darren A. Miller, Ph.D., CWB®, is vice president of forestry programs for the National Council for Air and Stream Improvement, Inc. and immediate past president and fellow of The Wildlife Society.



James F. Bullock, Jr., MS, CWB®, RF, CF, is senior vice president, forest sustainability, for Resource Management Service, LLC.

Cindy K. Dohner, MS, is president of Cindy K Dohner, LLC, and former regional director of Region 4 of the U.S. Fish and Wildlife Service.

William R. Murray, JD, is vice president for policy and general counsel for the National Alliance of Forest Owners.

Craig Czarnecki, MS, is the science applications assistance regional director for Region 3 of the U.S. Fish and Wildlife Service.

WILDLIFE MATERIALS
PROTECT • MONITOR • STUDY

QUALITY PRODUCTS SINCE 1970
Thanks to Bill, Our Legend!

Distributor RECONYX
 SEE WHAT YOU'VE BEEN MISSING!

RECEIVERS AND TRANSMITTERS FOR WILDLIFE RESEARCH
800-842-4537
 1202 Walnut Street • Murphysboro, Illinois USA • www.wildlifematerials.com