

Saving the TORTOISE

By DRUE
DeBerry

There's a new Forested Flyways initiative underway with a goal of restoring and conserving forest habitat for the federally threatened gopher tortoise (*Gopherus polyphemus*) in Alabama, Louisiana and Mississippi. While the gopher tortoise may not have wings, improving habitat conditions for it will have substantial benefits for a number of other species, including feathered friends such as the Northern Bobwhite.



Gopher tortoise initiative partners (from left): Robert Bonnie of Environmental Defense, Drue DeBerry of the American Forest Foundation, David Pashley of the American Bird Conservancy, Randy Browning of Wildlife Mississippi/U.S. Fish & Wildlife Service, Will McDow of Environmental Defense and Tree Farmer Judd Brooke.

Photo credit: Drue DeBerry

The gopher tortoise initiative — made possible by a grant from the U.S. Fish & Wildlife Service's Private Stewardship Grant Program — is the latest Habitat Conservation program of the American Forest Foundation that operates with support from the USDA Forest Service. The program links members of the American Tree Farm System (ATFS) with conservation groups and agencies to improve and restore wildlife habitat on family forestlands.

Gopher Tortoise Biology

The gopher tortoise is found from southern South Carolina through Georgia into Florida and then westward through southern Alabama, Mississippi and into the three parishes that make the "toe" of Louisiana.

The greatest threat to gopher tortoise habitat has been conversion to intensive land use — housing subdivisions, agriculture, industrial centers and loblolly plantations aimed at pulp production. One of the greatest hopes for the future survival of the gopher tortoise is landowners who want to actively manage their forests.

Gopher tortoise life cycle traits compound difficulties brought about by dwindling habitat. While gopher tortoise can live to be 40 years old, they don't reach sexual maturity until 16 to 21 years of age. When you combine this with the fact that they produce few offspring that survive to reproduce and they disperse like, well, a tortoise, you've got a species in trouble.

Although gopher tortoise sightings are still common, a severe decline is anticipated in the next 40 years as the current generations die off due to a lack of suitable habitat. For these reasons the gopher tortoise was listed by the U.S. Fish & Wildlife Service as a threatened species in Louisiana, Mississippi and western Alabama in 1987.

Forest Habitat and the Market

As timber harvesting in the Pacific Northwest decreased in the 1990s, much of the forest industry shifted procurement focus to America's Wood Basket — the South — where 67 percent of forestland is owned by families. Managing forest landown-

ers had largely shifted long ago from longleaf pine to more intensive production of the fast-growing loblolly pine. Short-rotation loblolly and slash that focused more on pulp production than sawtimber was heavily promoted by the forestry community.

Short rotations meant strong steady income for landowners. More recently, prices for pulp have dropped as pulp plantations in the southern hemisphere have started to produce pulp faster, cheaper and on less land

Dr. John Lambert, the first family forestowner to enter into a Safe Harbor Agreement for the gopher tortoise, explains restoration efforts on his Tree Farm.

Photo credit: Drue DeBerry



than what can be done in the southern United States.

Now many landowners are beginning to wonder if traditional short-rotation management is the best way to help them sustain their forests economically. This initiative will work to provide landowners with different strategies that will maintain economic viability while improving wildlife habitat.

Habitat for the Gopher Tortoise

Ideal habitat for gopher tortoise is created through active forest management that is compatible with sawtimber and pole production. Longleaf pine is the preferred pine species, but Tree Farmers can achieve positive results with loblolly and slash pine.

The objective is to create a forest with a low basal area (somewhere between 60 and 90 ft²/acre), low canopy cover and a vibrant understory containing grasses, legumes and forbs. The goal is structural for the pine trees, species specific for the understory.

To achieve the basal area goal, initial planting is done at lower densities and thinning keeps basal area in the target range. To ensure desired understory conditions, herbicide treatments and controlled burns (on a two- to three-year cycle) are used to control hardwood and invasive species competition with herbaceous ground cover the gopher tortoise depends on for food.

Loblolly & Slash

While replanted loblolly sites with a main goal of pulp production (at 750 stems/acre) offer some habitat initially, quality rapidly decreases until at four to five years of age wildlife habitat is minimal for the gopher tortoise and a host of other species including the Northern Bobwhite. At a minimum, existing stands can be modified to increase wildlife benefit through a

program of thinning and regular controlled burns. Ideal management would replace loblolly and slash with longleaf after the final harvest of sawtimber and poles.

Longleaf Pine

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Longleaf pine can provide not only great wildlife habitat, but also an opportunity for greater economic return over the long-term.

The Environmental COMMUNITY and FAMILY FORESTLANDS

I've noticed that the more moderate environmental groups have started to take greater interest in the potential for conservation benefits from family forestlands. With nearly 60 percent of U.S. forestlands in the hands of families, it makes sense to factor them into strategies to counter the ubiquitous problem that won't go away — sprawl.

Working forestlands offer an economically viable alternative to sprawl, especially when policies and tax laws balance development pressures. Working forests also offer opportunities to improve or restore wildlife habitat through management.

This Forested Flyways initiative for the gopher tortoise is a wonderful opportunity to show the environmental community just how valuable the American Tree Farm System can be to conservation efforts on the landscape level.

If you are interested in gopher tortoise conservation on your forestland, and would like more information about this initiative contact me, Drue DeBerry, at ddeberry@forestfoundation.org or call (202) 463-5188.

return over the long term. Longleaf pine planted for poles and sawtimber at lower densities (450 to 550 stems/acre depending on site history and conditions) offers excellent habitat that maintains quality throughout the rotation cycle.

The same site preparation that is needed for longleaf to establish is also beneficial for desirable understory species. Stand management throughout the cycle includes thinning and burning that maintain habitat quality for the gopher tortoise. At maturity, a Tree Farmer has the potential to see greater economic return from more high-value poles and sawtimber with longleaf than with loblolly or slash.

Forest Flyways Gopher Tortoise Initiative Partners

To achieve the goal of restoring and conserving forest habitat for the gopher tortoise, Forested Flyways has partnered Tree Farm with three conservation groups: the American Bird Conservancy (ABC), Environmental Defense (ED) and Wildlife Mississippi.

The American Bird Conservancy, whose mission is to conserve wild birds and their habitats throughout the Americas, provides insight on how the initiative's management strategies will benefit bird species. Environmental Defense, known for seeking solutions that work for wildlife and landowners, provides



expertise in regulatory assurances for landowners. Wildlife Mississippi is a local partner that believes in encouraging conservation stewardship while recognizing private property rights.

Randy Browning, an employee of Wildlife Mississippi and the U.S. Fish & Wildlife Service through a special partnership, will oversee work in the field with project landowners.

What the Initiative Will Do

The gopher tortoise initiative will start in September and has two major components — outreach and cost-share assistance. First, American Forest Foundation and ABC, in partnership with Wildlife Mississippi and ED, will conduct outreach activities to family forest-owners. There are 1,024 Tree Farmers managing 934,421 acres in the 23 project counties and parishes.

Outreach activities will include (1) two Demonstration Field Days highlighting the safe harbor agreement for the gopher tortoise and forest management to improve habitat; (2) a handbook on pine ecosystem management and restoration (working title: “Gopher Tortoise and Pine Ecosystem Conservation Handbook”); and (3) creation of two conservation education trails with Tree Farmers that will explain gopher tortoise conservation and forestry on family lands.

The second component, cost-share assistance, will be used to underwrite the costs of pine ecosystem habitat restoration on Tree Farms in conjunction with a first-of-its kind multi-species Safe Harbor and Candidate Conservation Agreement with Assurances program currently being developed by the U.S. Fish & Wildlife Service and ED. Pursuant to this program, landowners will enter into “Pine Ecosystem Management Agreements” that provide landowners with regulatory assurances in exchange for restoration activities. 🌿

Drue DeBerry, MFS, is director of habitat conservation programs for the American Forest Foundation in Washington, D.C.

The ILLUSION of PRESERVATION

I've often been frustrated when the Not In My Back Yard (NIMBY) argument is completely left out of discussions on forest conservation in the United States.

Americans are major consumers of wood and wood products, and despite recycling our rate of consumption continues to increase. A true environmentalist should embrace sustainable forest conservation in the United States to support our consumption. Allowing the burden of production to shift to other countries and then assuming that it will done in an environmentally sound fashion is the opposite of Think Globally, Act Locally.

My experience as an agroforestry and aquaculture agent in the jungles of Cameroon had a profound impact on me. While serving as a Peace Corps volunteer I witnessed irresponsible forestry achieved through the exploitation of villagers by expatriates from Lebanon and Italy who had bribed government officials. No one appeared to be accountable and little thought was given to the forest legacy left by the harvest strategies. I'm not trying to assert that sustainable forestry is not possible in a developing country, but I am saying that it's more feasible in the richest country in the world.

If any of this resonates with you or you are curious to learn more, I strongly encourage you to check out an article and a paper recently published on the topic. A Harvard Forest Paper (“The Illusion of Preservation,” No. 26) and an article in the Sacramento Bee (“Between Preservation and Conservation: Do Environmental Victories Hide the Damage Caused by Consumption?” by Ed Hunt, May 2, 2003) provide arguments with global perspectives and case studies arguing for local production of natural resources.

—D.D.





Left: Montana Tree Farmers learn about restoration efforts on Therriault Creek.

Right: Brothers Mike and Pete Greenheck share their conservation philosophy with attendees of the Shared Streams in Minnesota field day.

Photo credit: Drue DeBerry



Shared Streams CELEBRATES SUCCESS

Right: Mainers enjoying Shared Streams field day on the Small Family Tree Farm.

Below: Kokanee salmon migrate up Grave Creek during Montana Shared Streams field day.

Photo credit: Drue DeBerry



Shared Streams is a Habitat Conservation program of the American Forest Foundation that operates with support from the USDA Forest Service. The program links members of the American Tree Farm System with conservation groups and agencies to improve and restore fish habitat on family forestlands.

Last fall saw three Shared Streams projects conclude with field days in Minnesota, Montana, and Maine.

Mike and Pete Greenheck hosted a field day to highlight restoration work done on Gorman Creek. More than 175 folks who manage more than 13,000 acres learned about stream restoration, prairie restoration and direct seeding techniques for hardwoods. The field day was sponsored by Philip Morris Co. Inc. and was a great success thanks to Minnesota DNR forester Terry Helbig.

In Montana, Tree Farm inspector Mike Justus helped combine the Montana Tree Farm Committee's annual event with a Shared Streams field day. One hundred Tree Farmers managing 43,000 acres learned about restoration activities on three Tree Farms in whirlwind tour.

In Maine, the final project of the Shared Streams in Maine initiative was completed thanks to invaluable assistance from Geneva Duncan of the Maine Forest Service. Tree Farmers gathered on a beautiful fall day to learn about Atlantic salmon habitat restoration on the Schoppe Hill Tree Farm of the Smalls family. The field day tour along the Narraguagus River helped explain the important links between forestry and salmon habitat quality.

—D.D.