



Photo by Dante Fenolio

**THREATENED  
& ENDANGERED  
SPECIES**

# Protecting the Red Hills Salamander: *A Legacy of Alabama's Rich Natural Heritage*

*By Jodie Smithem, U.S. Fish and Wildlife Service*

**D**eep within the woods of south Alabama, a salamander pokes its head out of a burrow. Located on a steep slope, the burrow is covered with leaves from the mature hardwood trees overhead. It is dusk, and the salamander is looking for food. Should a spider or cricket happen to walk by, it would likely become this amphibian's next meal. The salamander will remain this way for hours, barely moving, waiting for dinner. Along this hillside are many other similar burrows, but they are hard to see unless you are looking for them.

These Red Hills salamanders live nowhere else in the world; the Red Hills of Alabama are the only place where you will find them. Specifically, these creatures will be on steep slopes with mature mixed hardwoods, located between the Alabama River to the west and the Conecuh River to the east. The salamanders do not have lungs but breathe through their skin, so the moisture of these forests is essential to their survival.

The state amphibian of Alabama, the Red Hills salamander is federally listed as a threatened species. Its conservation and recovery are a top priority for the Alabama Field Office of the U.S. Fish and Wildlife Service. Recently, the office sent a letter to landowners in the Red Hills that included a fact sheet on the salamander. Approximately 98 percent of the salamander's habitat is in private ownership, so working with individual landowners to protect this species is crucial to its long-term survival. The purpose of the letter was to increase knowledge about the salamander and highlight several opportunities available to private landowners who are interested in protecting this unique species and its habitat. These opportunities are discussed below.

## **Land Management**

The simplest, yet possibly most effective, tool for protecting the Red Hills salamander and its habitat is land management. Protecting the hardwood-dominated slopes where the salamander

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## Red Hills Salamander

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lives is critical for conserving the species. Maintaining a naturally-vegetated 50- to 100-foot buffer between the sloped forests and adjacent ridge tops and floodplains can offer significant protection to the habitat elements essential to the salamander's survival. Red Hills salamanders will not persist in areas where the tree canopy has been removed or significantly reduced, since those areas no longer provide the shade and moisture required by the animal, or in areas where adjacent land management actions have caused severe soil disturbance along the steep slopes. Placing an adequate buffer adjacent to the hardwood slopes will offer significant protection from soil disturbance and allow ample shade for the salamander, thus protecting this unique species.

### Conservation Easements

Another opportunity available to landowners is conservation easements. A conservation easement is a legal agreement between a landowner (easement donor) and a qualified conservation organization or public entity (easement holder), in which the owner voluntarily agrees to restrict the type and amount of development that can occur on the land. A conservation easement allows the landowner to preserve the property's conservation and historic values by keeping it in an undeveloped state, while also preserving traditional land use patterns such as timber operations and hunting. A significant benefit of conservation easements is that the landowner maintains ownership of the property, retains the right to use the property for profit and recreation, and retains the right to sell, deed, or gift the property to another (such as heirs). In addition, a conservation easement donation can reduce property taxes, income taxes, and estate taxes for the landowner.

With the recent federal tax incentive renewal, conservation-minded landowners now have until December 31, 2011, to take advantage of a significant tax deduction for donating a conservation agreement to permanently protect important natural or historic resources on their land. The enhanced incentive applies to a landowner's federal income tax by:

- Raising the deduction a donor can take for donating a voluntary conservation agreement from 30 percent of their income in any year to 50 percent;
- Allowing farmers and ranchers to deduct up to 100 percent of their income; and
- Increasing the number of years over which a donor can take deductions from 6 to 16 years.

Conservation easements are a great way to combine natural resource protection with landowner incentives. Private landowners who voluntarily choose to place land containing Red Hills salamander habitat in a conservation easement will not only be conserving an ecologically important species, but will also be preserving their rights to enjoy and use their property.

### Habitat Conservation Plans

Habitat Conservation Plans (HCPs) integrate development and land-use activities with conservation of at-risk species through a climate of cooperation. Without a permit, it is unlawful to harm federally-listed threatened and endangered species. Engaging in land management or development activities that impact Red Hills salamander habitat may result in the death or injury of the species, which would require consultation with the U.S. Fish and Wildlife Service (the Service). However, landowners who develop HCPs in cooperation with the Service are able to receive "incidental take" permits, allowing landowners to conduct development or management activities without worry of legal liability while ensuring the conservation of listed species.

HCPs are an important tool in our effort to conserve the salamander and the habitat it depends on. They resolve concerns over development of land that is home to a threatened species, give assurances to landowners for conducting otherwise lawful activities, and help conserve additional species that share the same habitat as the salamander such as wood thrush, worm-eating warblers, great horned owls, and coal skinks. By working together, private individuals, timber companies, and local, state,



Photo by Jim Godwin

Typical habitat of the Red Hills Salamander.

and federal agencies are creating effective stewardship solutions that will be recognized for years to come.

knowing their decision will protect Alabama's rich biological heritage and allow future generations to enjoy the unique landscape of the Red Hills.

## Land Acquisitions

Recently, the Alabama Department of Conservation and Natural Resources acquired more than 4,300 acres containing high quality Red Hills salamander habitat in Monroe County, Alabama. This was made possible by Forever Wild funds, federal grant money, and willing sellers. Without the collaboration of local landowners and their willingness to sell property, this immensely important task would not have been accomplished. The acquisition of land by state agencies, conservation groups, or other environmental organizations is one of the best ways to ensure long-term survival of imperiled species. These lands often benefit the public as well by providing outdoor recreational opportunities such as hunting, hiking, and wildlife photography. Landowners who sell or donate property to a conservation agency can feel good

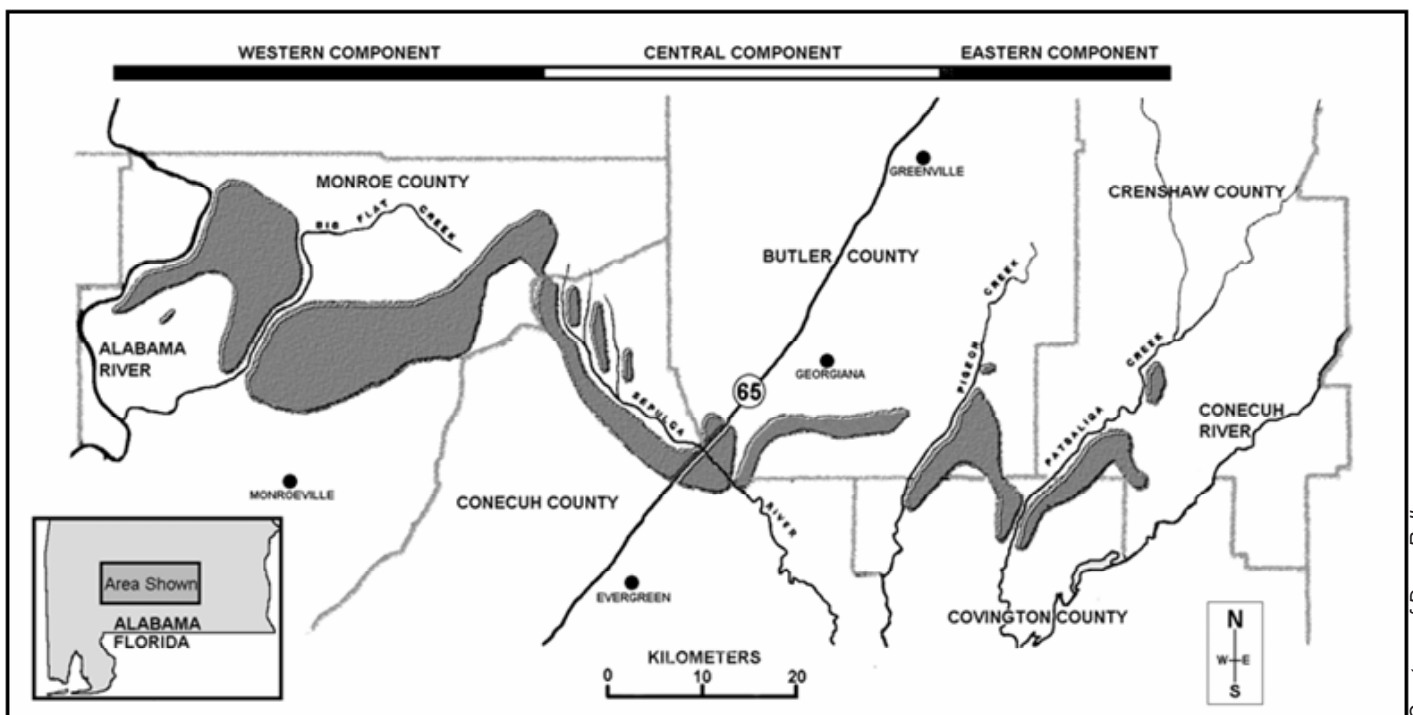


Photo by J.J. Apodaca

## The Future is in Our Hands

We need the help of local landowners to protect important resources in the Red Hills and hope you will consider some of the opportunities discussed above. These opportunities exist for landowners who wish to voluntarily protect Red Hills salamander habitat, which will benefit not only the salamander, but also the many other plants and animals that depend on the hardwood slopes of the Red Hills. For people who do not live in the Red Hills but would like to assist with salamander conservation, simply becoming knowledgeable about the species and sharing that knowledge with others is invaluable. 🙏

*Editor's Note: For more information on the salamander or any of the conservation opportunities discussed above, please contact Jodie Smithem at (251) 441-5842 or [jodie\\_smithem@fws.gov](mailto:jodie_smithem@fws.gov)*



Courtesy of Drew Rollman

Approximate known range of the Red Hills Salamander (corresponds to the Tallahatta and Hatchetigbee geological formations between the Alabama and Conecuh rivers).