

Abita Creek Flatwoods Preserve

An Interview with Alex Entrup

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Threatened Longleaf Pine Habitat

Longleaf pine habitats are one of the most threatened habitats in North America. Only 3% of the original longleaf pine ecosystems in North

America remains. The threats to the savannas and wetlands include conversion to pastures, conversion to off-site loblolly or slash pine plantations, clearing for commercial and residential development, natural fire regime changes, drainage, and other agricultural activities. The desired characteristics include an open longleaf pine forest with multiple age classes, inclusion of native communities such as the bayhead swamp, a diversity of native animal species, natural processes such as fire and hydrology, the elimination of Chinese tallow trees, and a diverse groundcover with many species of native grasses, sedges, and wildflowers.

“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.”

- Margaret Mead



Fig. 1. Longleaf Pine savannas at the Preserve.

Longleaf Pine Habitat in Louisiana

The Abita Creek Flatwoods Preserve is located in Abita Springs, Louisiana and operated by The Nature Conservancy. It is part of a group of three preserves in St. Tammany Parish that protect over 4,000 acres of savannas and longleaf pine habitat. In addition, The Nature Conservancy has a conservation project that contains over 10,000 acres of private land in the surrounding area. The preserve is composed of 996 acres of longleaf pine savannas (Fig. 1), slash pine – pond cypress/hardwood forest community, and bayhead swamp (Fig. 2). The savannas contain wetlands that provide benefits including increased storm water storage that helps prevent downstream flooding, increased groundwater recharge to shallow aquifers, improved water quality, and habitat for a variety of animal and plant species. The area is part of The Nature Conservancy’s Southeast Louisiana Pine Wetland Mitigation Bank.

The Preserve contains immensely diverse and threatened habitats and wildlife, some of which can only be found in the area or are globally or regionally rare. The savannas contain several species of grasses, sedges, and wildflowers, such as insect-eating plants, native orchids, and

lilies. They contain at least eight species of carnivorous plants, including the yellow pitcher plant (Fig. 3) and parrot pitcher plant. Also, the Preserve contains approximately thirty rare plant species, including the Georgia tickseed, Spring Hill flax, Louisiana quillwort, and little-leaf milkwort.



Fig. 2. Bayhead swamp.



Fig. 3. Yellow Pitcher Plant.

The Preserve is home to around 122 bird species, over twenty-four mammal species, about sixty-four reptile and amphibian species, and many invertebrates. Some rare fauna found here include the Flatwoods Digger crawfish, flower beetle, and the endangered gopher tortoise. Grassland birds, such as Bachman's sparrow and Henslow's sparrow, are one of the fastest declining bird groups in North America, mainly due to habitat loss. These birds depend on the grasslands for food, shelter, and nesting.

Restoration Activities

Alex Entrup is the Restoration Coordinator for The Nature Conservancy at Abita

Springs (Fig. 4). He has a Bachelor's degree in Environmental Studies, and is currently working on a Master's in Biology. He has worked for the National Park Service and The Nature Conservancy in New York and came to Louisiana to focus on prescribed fire restoration. He uses fire and herbicides to control brush and restore the preserve to its historical habitat. He also uses adaptive management and different monitoring techniques and is publishing a professional paper on the preserve.



Fig. 4. Alex Entrup (left) and the author (right).

Savannas were historically the dominant habitat in the area. Restoration activities include frequent prescribed fire, planting of longleaf pine seedlings in the savannas, timber removal, herbicide use for the eradication of brush and nonnative species such as the privet hedge, and various monitoring techniques. Volunteers have helped with different projects, such as building boardwalks (Fig. 5) and planting longleaf pine seedlings.



Fig. 5. A Pitcher Plant trail.

Using Fire at the Preserve

Historically, the area experienced regular, low-intensity fire from lightning, Native Americans, and later from early settlers. These fires interacted with nutrient-poor soils and a seasonally high water table to limit development of most trees and shrubs besides longleaf pine. Most native species have adapted to regular fire over eons and now depend on it for reproduction, growth, and survival.

Prescribed fire is the primary management tool used at the Preserve (Fig. 6). The benefits of prescribed fire restoration include deterring competitive woody vegetation invasion, releasing nutrients in the form of ash back into the soil, stimulating flowering and fruit/seed production for wildlife, making seeds viable for grassland birds, exposing mineral soil for seedling germination, helping longleaf pine needles re-sprout, controlling brown spot blight, stimulating longleaf pine to grow out of the seedling “grass” stage, improving wildlife habitat, and decreasing litter and fuel buildup. Devoted restoration work has resulted in countless positive outcomes for people, wildlife, and habitats in Abita Springs.



Fig. 6. After a prescribed burn.

For further information

Alex Entrup, The Nature Conservancy of Abita Springs @ www.nature.org

Directions to the Preserve can be found at www.nature.org.