Georgia State Park Restores Important Pine-Oak Forest Community with Prescribed Fire

The National Cohesive Wildland Fire Management Strategy is a national collaborative effort to bring a broad cross-section of stakeholders together to address wildland fire management challenges. The Strategy directs wildland fire planning activities and has three primary goals: restore and maintain landscapes, develop Fire-Adapted Communities, and improve wildfire response.

Activity	Impact
# acres burned every 3-5 years in and around Tallulah Gorge State Park due to collaboration	6,000-7,000
Threatened or endangered plans in and around park	sundew, persistent trillium, and turkey-beard

Tallulah Gorge State Park and the town of Tallulah Falls, Georgia are surrounded by a unique, fire-adapted forest community that, without low-intensity fire management, would gradually disappear. Restoration efforts are currently underway tore-establish this forest community with prescribed fire and mechanical treatments.

Low-intensity fires historically burned every 3-5 years within the Tallulah Falls area, maintaining widely spaced pine and oak trees, a diverse grass and shrub understory, and abundant wildlife. Common tree species included shortleaf, Virginia, pitch, and Table Mountain pine, and southern red, scarlet, and chestnut oak. Understory plants included big bluestem, coneflower, and silphium, and several rare and endangered species, such as sundew, persistent trillium, and turkeybeard. The abundant understory plants regenerated by periodic fires attracted varied wildlife, including white-tailed deer, black bear, eastern wild turkey, ruffed grouse, northern bobwhite, and the rare Bachman's sparrow. Fire suppression and land use change resulted in the pine-oak forest community transitioning to species not adapted to fire and the reduction or disappearance of several fire-adapted species.

Federal, state, and private partnerships, including the Georgia Department of Natural Resources and USDA Forest Service, have been instrumental in restoring the pine-oak forest community in and around the Tallulah Gorge area using prescribed fire and mechanical methods. Areas burned include forest service, state park, and private lands, with 6,000 to 7,000 acres burned every 3 to 5 years.

Cumulative burns over the past decade have resulted in improved habitat for the entire forest community. Diverse understory grasses and forbs have returned, as have certain wildlife species, like the ruffed grouse. The Table Mountain pine, reliant on fire to open its cones and release seeds to develop the next generation, is also rebounding and the rare monkey-faced orchid and roundleaf sundew have begun to reappear as well.

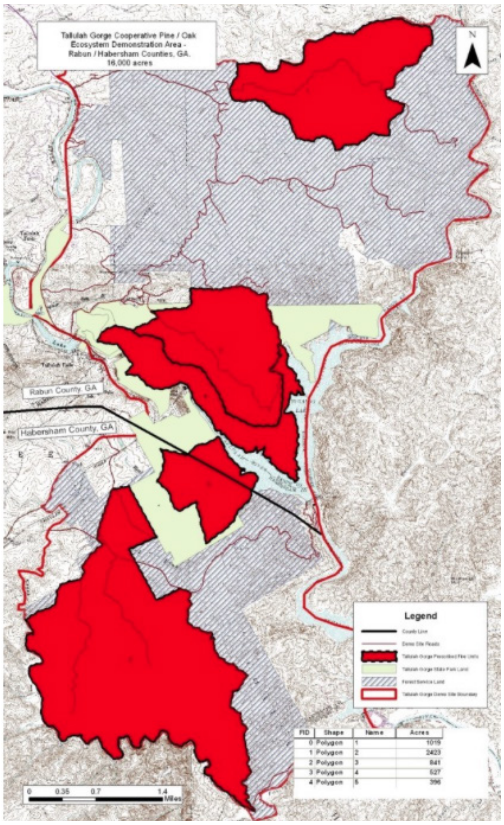
Restoration in the Tallulah Falls area is being researched by Georgia Southern

and Western Carolina Universities to determine the influence of prescribed fire on the pine-oak forest community. Aerial Light Detection and Ranging (LIDAR) will be used to map treatment areas so the influence of prescribed fire on forest structure can be determined. In addition, ecological models were developed to prioritize burn areas, assisting in long term restoration plans. Margit Bucher, fire manager of the North Carolina Nature Conservancy, when commenting on a 2011 burn at Tallulah Gorge, said "I think they've done a really good science-based approach in picking where they want to burn and what they want to achieve."

Tallulah Gorge prescribed burn. Credit: Philip Juras.

Tallulah Gorge prescribed burn. Credit: Philip Juras.

The endangered persistent trillium (Trillium persistens) grows in moist areas in the Tallulah Gorge State Park and surrounding areas. The effects of prescribed treatment on this species are not known and are currently being investigated. Credit: Carrie Radcliffe.



Map of the 16,000 acre fire treatment area in an around Tallulah Gorge State Park (Rabun and Habersham counties, Georgia). Credit: Mike Brod.

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Partners: U.S.D.A. Forest Service, Chattahoochee-Oconee National Forest, Georgia Department of Natural Resources- State Parks and Historic Sites Division and Wildlife Resources Division, Georgia Forestry Commission, The Nature Conservancy, Georgia Power, U.S. Fish and Wildlife Service