

2015 Arkansas State Wildlife Grant Pre-proposals

**Pine Flatwood Habitat Management through Feral Hog Control
To Benefit Species of Greatest Conservation Need**

Project Summary

Ecological damage to high priority pine-oak flatwoods habitats will be reduced restored at The Nature Conservancy's - Felsenthal West Preserve (FWP - 3,609 acres) where feral hogs (*Sus scrofa*) are abundant and causing noticeable damage by rooting the vegetation. Feral hogs, an invasive species, interrupts food webs by damaging native ground flora and reducing nesting success for ground nesting birds associated with these pine-oak flatwood systems. Feral hogs will be monitored and trapped in the TNC- Felsenthal West Preserve areas to survey population and reduce feral hog numbers. This project addresses two conservation action funding priorities and benefits at least 12 species of greatest conservation need (SGCN).

Project Lead - Clint Harris

Southwest Arkansas Project Manager
The Nature Conservancy (TNC)
601 N. University Ave., Little Rock, 72205
Little Rock, AR 72205
(501) 663-6699; Fax: (501) 663-8332
E-mail: charris@tnc.org

Project Partner – J.P. Fairhead

Feral Hog Coordinator
Arkansas Game and Fish Commission
Northeast Regional Office
600-B East Lawson Rd.
Jonesboro, AR 72404



Feral hogs at feed station

SWG Funding Requested: \$46,542 (64%)

Amount and Source of Matching Funds: \$25,744 (36%) will be provided by
The Nature Conservancy and Arkansas Game and Fish Commission
Total Project Costs: \$72,286

NEED: The Arkansas Natural Heritage Commission (ANHC) and The Nature Conservancy (TNC) previously identified pine-oak flatwoods as one of Arkansas's most endangered forested ecosystems; they and the Arkansas Game and Fish Commission (AGFC) now partner to protect and restore them. Major threats to this plant community include conversion to pine plantations, altered fire regimes, invasive non-native plants, feral hogs, and habitat fragmentation through development.

TNC- Felsenenthal West Preserve (3,609 acres) supports a variety of habitats—West Gulf Coastal Plain Dry Pine-Hardwood Flatwoods, Pine-Hardwood Forests, and Wet Hardwood Flatwoods that support at least 12 SGCN. FWP is currently involved in various stages of restoration and management, mostly for red-cockaded woodpecker and associated species such as, brown-headed nuthatch, red-headed woodpecker, wintering sparrows, northern bobwhite, and Bachman's sparrow. As restoration measures increase the quality of habitat, feral hog populations have encroached into restored areas leaving large negative impacts on the herbaceous vegetation and increased damage to ground nesting bird species. As current management restore quality habitat for SGCN, these efforts also increase forage sources for feral hogs. Gaining a better knowledge of population sizes and territories would allow for more efficient and effective control measures of feral hogs, thus reducing negative ecological impacts on newly restored habitat.



Typical feral hog impact on pine flatwoods

FUNDING PRIORITIES: This project addresses two 2015 AWAP funding priorities: (1) Birds of Pine Woodland and Savanna Habitat – implementation and/or evaluation of habitat restoration and management of pine woodland and savanna, and (2) Woodlands – habitat management to maintain or increase habitat quality or increase patch size for SGCN.

PURPOSE AND OBJECTIVES: The purpose of this project is to improve quality of pine-oak flatwoods by reducing the destruction of native ground cover and ground-nesting birds by feral hogs on 3,609 acres at FWP. Project completion will take two years; objectives are:

1. Assess feral hog population size and territories at FWP.
2. Plan an appropriate response to the assessment.
3. Begin to reduce feral hog populations to a level that maintains important native ground cover.

LOCATION OF WORK: Project activities will occur at FWP (Union County) and will reduce damage to newly restored habitat in the West Gulf Coastal Plain Dry Pine-Hardwood Flatwoods, West Gulf Coastal Plain Pine-Hardwood Forests, and West Gulf Coastal Plain Wet Hardwood Flatwoods, all located within the South Central Plains ecoregion.



Felsenthal-west project area

APPROACH:

Objective 1 will be addressed during both years of the project. This will be through the use of trail cameras on active bait sites and mapping of territories.

Objective 2 will be addressed throughout both years of the project. This will be accomplished with the use of traps, snares, and other control methods deemed appropriate.

EXPECTED RESULTS AND BENEFITS TO SPECIES OF CONCERN: Controlling feral hog populations will assist in the ongoing restoration of degraded pine-oak flatwoods, woodland, and savanna at FWP: (1) by reduce damage to the native shrubs and grasses that priority birds are dependent upon, (2) increase success of ground nesting birds, (3) decrease in non-native plants by reducing soil disturbance (4) a more effective fire regime by providing lowering disturbance to continuous fuels, (5) and reducing erosion in these sites due to the soil disturbance. This project will benefit 12 SGCN known from the FWP area.

BUDGET

Category	Requested SWG Funds	TNC Match	AGFC Match	Total
Personnel & Fringe	\$ 4,000	\$ 4,772	\$15,000	\$23,772
Operating Expenses				
Travel	\$ 1,000	\$ 2,000		\$ 3,000
Supplies	\$ 3,000	\$ 2,000		\$ 5,000
Contract assessment/trapping	\$30,000			\$30,000
Indirects (22.48% NICRA)	\$ 8,542	\$ 1,972		\$10,514
<i>Subtotal</i>	\$46,542	\$10,744	\$15,000	\$72,286
TOTAL			\$72,286	

QUALIFICATIONS

As a prescribed burn boss and land steward for TNC, Project lead **Clint Harris** has established a working track record with partners in this proposal while conducting prescribed fire activities, participating as a team member in partner-developed workshops, and as a peer in conservation planning. Clint is trained in planning and implementing ecological restoration activities including prescribed fire, forest management, and invasive species control.

J.P. Fairhead is the feral hog coordinator for the Arkansas Game and Fish Commission. His duties include statewide coordination of feral hog control activities on Wildlife Management Areas (WMAs) within eight Regions as well as collaborative efforts on cooperatively managed WMAs. Fairhead also coordinates and collaborates with multi-agency partnerships to provide consistent control, regulations and legislation concerning feral hogs. Agencies include USFWS, USFS, USDA APHIS and the Arkansas Livestock and Poultry Commission. He received a B.S. in Wildlife Management and Ecology from Arkansas State University and has been employed with the Arkansas Game & Fish Commission since 2008 as a Natural Resource Program Technician and Field Biologist.

Douglas Zollner is the Director of Conservation Science for TNC, Arkansas Field Office. He has been working with the Conservancy for 20 years. Zollner also serves as the Conservancy's National Fire Restoration Coordinator, coordinating Conservancy efforts to reduce the threat of altered fire regimes to biodiversity across ownerships at landscapes in the US and Mexico. Zollner has over 30 years of working experience with ecological assessments and conservation planning, woodland and watershed restoration, fire ecology, ecological modeling, and developing and implementing measures of conservation success in an adaptive management context. He received a B.S. from the University of Arizona in Watershed Management and an M.S. from Texas Tech University in the Ecology of Arid Lands.