



Pollinator Conservation Summary Forest Service Southern Region 2011 Accomplishments

The Forest Service Southern Region had another good year for pollinator conservation. While we did have some small pollinator gardens established at administrative sites, recreation areas, and seed production areas, the majority of our effort was placed on landscape scale restoration projects. These included thinning overstocked dense stands of trees allowing sunlight to reach the forest floor, removing offsite overstory species and planting with the appropriate species, control of non-native invasive species (both plant and animal), and prescribed burning.

Nearly 1 million acres of habitat was improved for pollinators in 2011. Of this, 30 to 40 percent is in good condition, either restored or nearly so, and immediately available to pollinators. The remaining acreage is at some stage in the restoration process, some of which is suitable but not optimal for pollinators, and some areas of first treatment are not much use at all at this point. These first thinnings are a necessary step in development of native understory vegetation. As we move forward in our efforts, considerable attention is being given to locally sourced seed and plants, trying to maintain the genetic integrity of our native plants.



Tiger swallowtail on butterfly weed



Growing season prescribed burn

Year Project Initiated: 2011

Project completion: Ongoing

Report number: 1 of 1

Expenditures (through 09/2011):

FY11 funding:
Partners/Contractors/Coop:).

Contact Person & phone number:
Dennis L Krusac: 404-347-4338



USDA Forest Service
1720 Peachtree Road, NW
Suite 816 North
Atlanta, GA 30309



The Greater Atlanta Pollinator Partnership

Forest Service Southern Region

2011 Accomplishments

The Greater Atlanta Pollinator Partnership (GAPP) was initiated in 2009 because of the rapid loss of habitat and increase in pesticide use caused by the housing boom of the 1990s and early 2000s. The goals of the GAPP are to encourage development of pollinator habitat at a landscape scale that is ecologically significant so we designed our project to focus on an area within a 25 mile radius around downtown Atlanta, Georgia. This comprises nearly 1.2 million acres of potential pollinator habitat.

Key components for the GAPP include using native species when available, controlling invasive species, establishing community gardens, citizen science projects, conservation, education and research. Developing schoolyard habitats is a priority so pollinator gardens can function as outdoor classrooms. There will also be an emphasis on registering individual gardens using an on-line registration process. All garden locations will be plotted on an on-line map so project progress can be monitored.

In 2011, 10 schoolyard habitats were developed and pollinator-friendly maintenance schedules established for local parklands.



Digger wasp in GAPP habitat



15 acre GAPP meadow maintained for pollinators, Cobb County Parks

Year Project Initiated: 2009

Project completion: Ongoing

Report number: 1 of 1

Expenditures (through 09/2011): \$5,000

FY11 funding: \$5,000

Partners/Contractors/Coop:).

Contact Person & phone number:

Dennis L Krusac: 404-347-4338



USDA Forest Service
1720 Peachtree Road, NW
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Atlanta, GA 30309



Caddo-Womble Ranger District Native Plants for Pollinators Ouachita National Forest

2011 Accomplishments

This ongoing project was initiated in 2008 to increase the availability and enhance the health of native plants providing important habitat for the community of pollinators found on the Ouachita National Forest. Project activities have included planting three Pollinator Gardens at developed sites on the Caddo-Womble Ranger District in the following locations: the entrance to the district office in Mt. Ida, adjacent to the Mauldin Birding Trail, and adjacent to the Caddo Pond – all found in Montgomery County, Arkansas. At each site, native wildflowers were planted using both commercially available and locally collected seed sources.

To further enhance native plant growth beneficial to pollinators, approximately 65 acres of unimproved pasture were treated using chemical, mechanical, and prescribed fire applications to reduce non-native invasive plant species (NNIS) dominating local landscapes. Following these treatments, the sites were seeded in 2011 with native plant species using both commercially available and locally collected seed sources. An additional 81 acres of temporary and permanent wildlife openings were also seeded with native grasses and wildflowers.



Figure 1. Diana fritillaries (*Speyeria diana*) benefit from wildflower gardens.



Figure 2. Native wildflowers such as this Blazing-star (*Liatris*) provide attractive landscaping while benefitting pollinators.

Year Project Initiated: **2008**

Promoting Native Plants & Pollinator Gardens

Project completion: **Ongoing**

Report number: **1 of 1**

Expenditures (through 10/2011): **\$23,000**

Partners/Contractors/Coop:

**Arkansas Game & Fish Commission
Arkansas Hwy. & Transportation Dept.
Montgomery County (AR)**

Contact Person & phone number:

Daniel A. Miller, 870-867-2101



Ouachita National Forest
Caddo-Womble Ranger District
1523 Hwy 270 East
Mt. Ida, AR 71957



Danville Mt Tower Site Ouachita National Forest 2011 Accomplishments

In 2011, American Tower elected to remove microwave tower sites that were not currently in use across the Ouachita National Forest. The site on Danville Mountain is approximately one acre in size and had a huge concrete structure, steel frame antennas, and a fence surrounding the property. The Forest Service requested that topsoil be brought in, weed-free rye grass be planted, native straw put down for erosion control, and native wildflower seed be purchased for pollinators. American Tower contractors purchased the requested seed and the District scattered it among the rye grass used for erosion control. Some of the native seed planted were purple coneflower, pale purple coneflower, black-eyed Susan's and blazing star. Prior to distributing the seed, the District sprayed herbicide on invasive species (such as serica lespedeza) around the perimeter. A gate was installed to keep trucks and ATV's from damaging the area. The site is level enough that the District plans to mow and burn the area in the future. The site is about 10 minutes from the District office, so school groups and visitors can see the site in bloom along with various pollinators.



Figure 1. American Tower being torn down and removed.



Figure 2. Site after tower removal.



Figure 3. Gate installed.

Year Project Initiated: Planning began in FY 2011.
Project implementation began in FY 2011.

Project completion: Ongoing

Report number: 1 of 1

Expenditures (through 10/2011): \$ Gate, equipment use, invasive spraying and labor \$ 3990

FY11funding
(Partners/Contractors/Coop): \$183 in native wildflower seed and \$3750 in top soil, wheat straw and annual rye grass.

Contact Person & phone number: Mary Lynn Mentz
479-495-2844



Ouachita National Forest
Jessieville/Winona/Fourche RD
P.O. Box 459, 1708 East 8th St.
Danville, AR 72833



Fourche Pollinator Garden Ouachita National Forest 2011 Accomplishments

Planning for the Fourche Pollinator Garden began in 2008, after visiting a Monarch workshop on the Hiawatha NF. The actual construction of the garden began in FY 2010. The purpose of the garden is to provide adequate habitat for breeding Monarch butterflies and to educate the public about the vital importance of various pollinators (in particular insects, birds, and bats). Previous management actions for 2010 included prescribe burning, mid-story reduction, removal of invasive species, native seeding, the creation of a woodland vernal pond, installation of various bird and bat boxes, and the creation of a 780-foot concrete handicap-accessible trail. In 2011, the Ouachita Job Corps was a valuable partner, building concrete bases for four benches, creating a welded metal fence to keep vehicles out, and cutting, mulching and removing nine dead trees that were a safety hazard near the sidewalk. Without their assistance, the District could never have afforded the improvements needed to make the garden safe and enjoyable for the public. The district technicians painted and added the boards to the benches, built an educational bulletin board, and installed the steel fence. Students at local schools partnered to build and install amphibian houses and bee houses. The District also purchased 10 pairs of binoculars for field trips to the garden, native seed for children to grow /plant in the garden, and a 'Butterflies in the Classroom' kit for each school in the counties surrounding the District with American painted lady larvae. Some of the adults were released in the garden. The local Senior Citizen Center visited the garden weekly for exercise and a natural experience. Many more improvements are planned and already underway for FY 2012.



Figure 1. Steel sign and fence made by Ouachita Job Corps, Ouachita National Forest

Year Project Initiated: Planning began in FY 2009. Project implementation began in FY 2010 and continues...

Project completion: Ongoing

Report number: 1 of 1

Expenditures (through 10/2011): \$9570 to NFWF

FY11 funding
(Partners/Contractors/Coop): Ouachita Job Corps labor amounts to approximately \$ 14,300

Contact Person & phone number: Mary Lynn Mentz
479-495-2844



Figure 2. New benches made by Ouachita Job Corps and district technicians, Ouachita National Forest



Figure 3. Students with Toad Houses, Ouachita National Forest



Ouachita National Forest
JWF Ranger District
1708 East 8th Street
Danville, AR 72833



Ouachita National Forest Native Grass Restoration Project

2011 Accomplishments

This project was started in 2006 to establish native seed and plant sources for natural recruitment and anthropogenic restoration efforts. Implementation of this project has develop techniques and policies for use of native plant materials on the Ouachita National Forest and encouraged state and private groups to use native plant materials.

2011 Accomplishments

- ❖ 3,332 acres of prescribed fire was conducted in existing native warm season restoration plots, pine-bluestem management areas and old growth woodlands.
- ❖ 100 acres of brush hogging was completed within grass plots.
- ❖ 50 acres of native seed was established on the Caddo/Womble Ranger Districts.
- ❖ Harvested and processed native warm season grass seed and 400 bales native grass hay at the Forest Seed Orchard.
- ❖ Completed approximately 200 acres of non-native invasive plant species (NNIS) herbicide treatments.
- ❖ Native seed and hay harvested in 2010 was used by all five Ouachita RD's for various soil restoration projects.
- ❖ Used harvested native seed and hay to restore native vegetation along 3 miles of closed ATV trails and roads in the Wolf Pen Gap OHV area.
- ❖ Completed construction of 2,400 sqft storage facility at the Ouachita Seed Orchard that will be used to store native seed, hay, and equipment for seed processing.

2012 Planned Actions

Acres are scheduled for prescribed burning in Fall 2011 and Spring 2011 within Old Growth units and native grass plots.
Plan to harvest approximately 50 acres of native grass seed and hay.
Approximately 100 acres of mowing, planting, liming, fertilization and monitoring are planned in restoration areas and established plots.
Approximately 200 acres of NNIS treatments.
Continue restoration efforts on 40+ acres of native grassland habitats on the Caddo/Womble Warren Fields native plant restoration area.



Project Initiated: 2006 /Project completion: On going

Report number: 1 of 1

Expenditures (through 10/2011): NFN3 \$394,760; NFWF \$191,700; NFWW \$62,000; CWKV \$91,700; WFHF \$243,380; WFW3 \$4,000 (Funding accomplished: 37,127 ac of burning, 2043 ac of midstory reduction, 1,300 ac of mowing, 560 ac of NNIS treatments, 6 miles of OHV trail reclamation, 100 ac of native grassland restoration, 3 ac of wild and Scenic River Corridor campsite restoration, 510 ac of native seed and hay harvest – producing 800 pounds of native seed and 1000 bales of native hay mulch)

FY11 funding: NFN3 \$30,000; NFWF \$15,500; NFWW \$10,000

Partners/Contractors/Coop: Quail Unlimited, Arkansas Natural Heritage Commission, Arkansas Game and Fish Commission

Contact Person & phone number: Rhonda Huston (870-326-4574) or Susan Hooks (501-321-5323)



Ouachita National Forest
Mena/Oden Ranger District
1603 Hwy 71 North
Mena, AR 71953



Helping Hands Native Plant Pollinator Garden Sam Houston National Forest 2011 Accomplishments

Students from Houston and New Waverly schools are taking a hands-on approach to learning about land stewardship by helping to create the Sam Houston NF Helping Hands Native Plant Pollinator Garden, the first People's Garden in the National Forests and Grasslands in Texas. The students participated in native plant gardening, plant identification, insect life cycles, use of fire as a conservation and management tool and a forest excursion which focused upon host trees for native pollinators and educational activity stations related to pollinator habitat conservation. This first People's Garden project in the National Forests and Grasslands in Texas is part of U.S. D.A Secretary Tom Vilsack's People's Garden Initiative, encouraging USDA employees to establish gardens worldwide and to help communities create their own public gardens. Sam Houston NF employees Nancy Garcia and Dawn Carrie were instrumental in working to establish the native plant gardening portion of the program. This conservation program provided an opportunity for collaboration among agencies and organizations to create a partnership among pollinators, plants and people while incorporating sustainable gardening practices.



Zebra swallowtail

Year Project Initiated: 2010

Project completion: 2011

Report number: 1 of 4

Expenditures (through 10/2010): \$3,500.00

Partners/Contractors/Coop:

Sunshine Network Corporation, Texas Parks and Wildlife Department, Nature Heritage Society, Friends of the National Forests and Grasslands in Texas, Houston ISD – Stephen F. Austin High School, New Waverly ISD, the Gulf Coast Trade Center, Stephen F. Austin State University Pineywoods Native Plant Center, Natural Resources Conservation Service and the USFS Washington Office PollinatorLIVE! Program.

Contact Person & phone number:

Nancy Garcia or Dawn Carrie 1-936-344-6205



Cardinal flower-Lobelia cardinalis



Sam Houston National Forest
394 FM 1375 West
New Waverly, Texas 77358



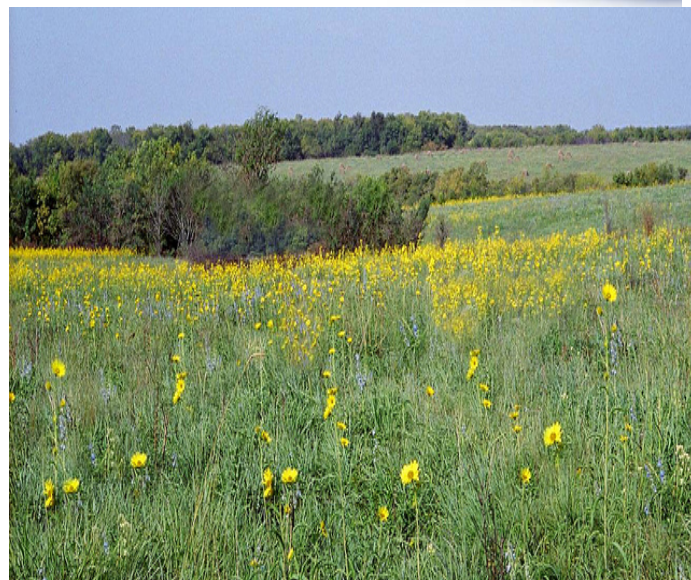
Native Prairie Seed Increase Project at Clymer Meadow Caddo National Grasslands 2011 Accomplishments

Status of Project Accomplishment: The Blackland Prairie of Texas once spanned more than 12 million acres between the Red River and San Antonio. Today, it is estimated that less than 1% remains. Restoration of native prairie plant communities is an essential strategy for increasing the acres under native vegetation, enhancing degraded remnants and buffering extant remnants. Lack of seed stock of local genetic origin is an impediment to accomplishing true restoration. The Nature Conservancy's Clymer Meadow Preserve has long been used as a seed source for prairie restoration. Recently, old agricultural lands within the preserve have been converted to seed increase plots for selected local native forbs and grasses. The project also includes wild harvest from an established forb dominated prairie.

The Conservancy has entered into an agreement with USFS to harvest wild seed from extant prairie and increase seed within plots to provide stock for restoration at the Caddo National Grasslands. Since the agreement's execution in July of 2008, Conservancy staff has completed site preparation and planting for an expansion of seed production plots, completed remodeling of the seed cleaning barn, including installation of lights, partial concrete floor, electrical upgrades and installation of a seed mill. Enhanced irrigation nearing completion with the installation of more than 1,000 feet of 1-inch PVC which supports 40 irrigation risers. Within the past year, 240 acres were burned to enhance seed production composition quality. This year, due to good summer rains, we expect a high yield of both Indiangrass and upland switchgrass.



2 Acre upland switchgrass plot is expected to have a fabulous yield



Clymer Meadow, a Forb dominated Blackland Prairie

Year Project Initiated: 2008

Project completion: Ongoing.

Report number: 2 of 4

Expenditures (through 10/2010): \$31,000

FY10 funding: \$4,000.

Partners/Contractors/Coop: The Nature Conservancy.

Contact Person & phone number:
Tom Philipps 936-639-8514



Caddo National Grasslands
942 FM 409
Honey Grove, Texas 75446



Remnant BlackLand Prairie Project

Sam Houston National Forest 2011 Accomplishments

The Blackland Prairie of Texas once spanned more than 12 million acres between the Red River and San Antonio. Today, it is estimated that less than 1% remains. This project was initiated in 2007 to improve wildlife habitat quality by restoring remnant black land prairie sites (approx. 200 acres). Activities include burning, brush removal, herbicide treatments for non native invasive species, harvesting and planting native forbs and grasses, and transplanting native grasses. Cooperators on this project have included Texas Parks and Wildlife, Southern Research Station, NRCS, various private landowners and volunteers.



Year Project Initiated: 2007

Project completion: ongoing

Report number: 4 of 4

Expenditures (through 10/2010): \$50,000 estimated

Contact Person & phone number:
Dano Jauregui or Rusty Plair, 936-344-6205



Sam Houston National Forest
394 Fm 1375 W
New Waverly, TX 77358



Native Seed Increase Project Sabine National Forest

2011 Accomplishments

Partridge pea (*Chamaecrista fasciculata* (Michx.) Greene) is a native legume highly valued for wildlife use and soil enrichment. It is also an important pollinator plant for lime sulfur, cloudless sulfur, sleepy orange sulfur, and little yellow butterflies. The National Forests and Grasslands in Texas is continuing its project to establish a 5 acre plot where seed from this important native plant can be harvested and used in revegetation projects across the Forest and adjacent areas. In 2010, work was accomplished that moved this project closer to completion. First, the soils were prepared for planting using a tractor and disk. Upon completion of that task, fertilizer was applied at a rate of 300 pounds of 5-20-20 per acre along with 1.6 tons of ground agricultural limestone per acre. Partridge Pea seed was then sown over the area at a rate of 14 pounds of pure live seed per acre. The site is well on its way to becoming a productive one which will provide seed and a nectar source for many pollinators for years to come.



Partridge Pea in flower



Established plants at the site

Year Project Initiated: 2010

Project completion: Ongoing

Report number: 3 of 4

Expenditures (through 10/2010): \$4,000.00

Partners/Contractors/Coop: Kisatchie NF and
USDA-NRCS Plant Materials Program-Stuart
Seed Orchard

Contact Person & phone number:
Thomas Philipps 936-639-8514



Sabine National Forest
5050 HWY 21 East
Hemphill, TX 75948



Bearcat Hollow Stewardship Project

Ozark/St. Francis National Forests

2011 Accomplishments

This project was initiated to improve wildlife habitat diversity and to improve forest health within the Bearcat Hollow Project area. It included creating large opening, creating woodland conditions, treating Non-native Invasive Species (NNIS), and prescribe burning to improve establishment of native species in the fire adapted ecosystem. This project is being completed with multiple partners like: National Wild Turkey Federation, Arkansas Game and Fish Commission, Rocky Mountain Elk Foundation, National Forest Foundation, Arkansas Wildlife Federation, Audubon Arkansas, etc. The project is beginning to see use by many different wildlife species like the Tiger Swallowtail below along with elk, coyote, bear, upland sandpiper, white-eyed vireo, and others. The project involved 216 acres of foliar spray to control understory, 177 acres of wildlife stand improvement, 282 acres of opening construction and/or maintenance, and 103 acres of NNIS treatment (lespedeza and microstigium).



Figure 1. Tiger Swallowtail observed using the new vegetation



Figure 2. Serecea lespedeza (NNIS) that is being removed

Year Project Initiated: 2008

Project completion: approximately 2018

Report number: 1 of 8

Expenditures (through 10/2011): Forest Service - \$300,000, Partners - \$400,000 (approximations)

FY11 funding Partners/Contractors/Coop:). Forest Service funding \$149,509; Partner contributions \$237,524

Contact Person & phone number:
Dwayne Rambo 479-284-3150



Ozark/St. Francis National Forests
605 West Main
Russellville, AR 72801



Reeves Branch WSI Project Ozark/St. Francis National Forests

2011 Accomplishments

This project was initiated to improve wildlife habitat diversity through the restoration of woodland conditions on the Forest to create conditions more indicative of a fire adapted ecosystem. There were 82 acres of habitat improvement accomplished. This improves habitat for Monarch Butterfly and other similar species by opening up the overstory and creating a greater diversity of plants within the understory. This is in the initial stages.



Figure 1. Wildlife Stand Improvement work



Figure 2. Desired future conditions including fire

Year Project Initiated: 2011

Project completion: 2011

Report number: 2 of 8

FY11 funding
Partners/Contractors/Coop:). Forest Service funding
\$11,752

Contact Person & phone number:
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**Ozark/St. Francis National
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Wedington WSI Project Ozark/St. Francis National Forests 2011 Accomplishments

This project was initiated to improve wildlife habitat diversity through the restoration of woodland conditions on the Forest to create conditions more indicative of a fire adapted ecosystem. Before treatment the fire class condition was III, after treatment it moved toward a class II and after prescribed burning, it will be in a condition class I and will be maintained in that condition. Different species of wildlife have been utilizing the area (deer, turkey, neotropical migratory birds). It is expected that the open woodland conditions will increase wildlife species diversity through time as there is very little of this type of habitat in the area. It is expected that a flush of herbaceous forbs will return where there was little to none prior to the project. There were 220 acres of habitat improvement accomplished. This improves habitat for Monarch Butterfly and other similar species by opening up the overstory and creating a greater diversity of plants within the understory (Initial Stages).



Figure 3. Note lack of vegetation at this plot prior to work



Figure 4. Desired future conditions including fire



Figure 1. Treatment area prior to work



Figure 2. Treatment area right after WSI

Year Project Initiated: 2011

Project completion: 2011

Report number: 3 of 8

FY11 funding
Partners/Contractors/Coop:). Forest Service funding
\$69,960

Contact Person & phone number:
Rhea Whalen 479-667-2191



**Ozark/St. Francis National
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Arbaugh Glade Restoration Project

Ozark/St. Francis National Forests

2011 Accomplishments

The objective of this project was to restore a glade ecosystem and restore surrounding closed canopy forest to open woodland condition. The objective was to thin forest canopy on 35 acres to allow for increased sunlight penetration to the ground to allow for greater herbaceous species diversity and abundance (initial stages).

The project was implemented by use of soil application of herbicide and cut surface application of herbicide (hack & squirt) to thin the area to woodland condition. This is characterized by a remnant basal area of approximately 20-30 square feet per acre. Trees targeted with herbicide included eastern red cedar, elm, maple, sweetgum, blackgum, and some hickory. Large white oak, red oak, hickory and shortleaf pine were selected as leave trees. Portions of the area have been burned previously on one occasion. Prescribed fire will be utilized on a 2-3 year return interval to maintain the stand in woodland condition, and maintain the glade areas within the woodland.

Realized results include reduction of canopy closure, improved herbaceous abundance and diversity, and related improved habitat conditions for quail, wild turkey, disturbance dependent landbirds, and butterflies.



Figure 1. Wildlife Stand Improvement work



Figure 2. Small headed pipewort – one of many desired plant species on glades

Year Project Initiated: 2011

Project completion: 2011

Report number: 4 of 8

FY11 funding
Partners/Contractors/Coop:). Forest Service funding
\$6,000

Contact Person & phone number:
Greg Taylor 479-754-2864



Ozark/St. Francis National Forests
605 West Main
Russellville, AR 72801



Native Warm-season Grass Restoration Project Ozark/St. Francis National Forests 2011 Accomplishments

The objective of this project was to restore and maintain fields across the Forest to native warm-season grasses that are currently dominated by non-native species like fescue. This was accomplished through herbicide application, disking, seeding, and fire management. A total of 500 acres of warm-season grass restoration was completed in 2011(400 maintenance; 100 initial).



Figure 2. Prescribe Burning of native warm-season grass fields



Figure 3. Restored native warm-season grass field



Figure 1. Drilling of native warm-season grass seed

Year Project Initiated: 2011

Project completion: 2011

Report number: 5 of 8

FY11 funding
Partners/Contractors/Coop:). Forest Service funding
\$50,200

Contact Person & phone number:
J. Keith Whalen 479-964-7228



**Ozark/St. Francis National
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Timber Stand Improvement (TSI) Project Ozark/St. Francis National Forests 2011 Accomplishments

The objective of this project was to thin the trees within a stand to help open up the canopy which allows more sunlight to the forest floor and creating more ground cover. This provides more food for wildlife and creates a greater amount of biodiversity. Trees were cut and fell to meet a set basal area that were identified in the Forest Plan. The work is expected to open up the canopy and lower the basal area moving the area more to woodland/savannah type conditions in combination with rotational prescribe burning. In 2011 a total of 2,037 acres were accomplished in hardwood and pine stands (initial stages).



Figure 1. TSI in a hardwood stand



Figure 2. Desired future conditions including fire

Year Project Initiated: 2011

Project completion: 2011

Report number: 6 of 8

FY11funding
Partners/Contractors/Coop:). Forest Service funding
\$103,850

Contact Person & phone number:
J. Keith Whalen 479-964-7228

**Ozark/St. Francis National
Forests**

605 West Main
Russellville, AR 72801





Forest Prescribe Burning Projects Ozark/St. Francis National Forests 2011 Accomplishments

The objective of this project was to prescribe burn at a landscape scale to help restore fire adapted ecosystems. This provides more food for wildlife and creates a greater amount of biodiversity. The work is expected to open up the canopy and lower the basal area moving the area more to woodland/savannah type conditions in combination with tree removal. In 2011 a total of 29,498 acres were accomplished (60% initial stages; 40% maintenance).



Figure 1. Prescribe Burn in hardwood stand



Figure 2. Desired future conditions including fire

Year Project Initiated: 2011

Project completion: 2011

Report number: 7 of 8

FY11 funding
Partners/Contractors/Coop:). Forest Service funding
\$2,183,121; Partners funding \$600,000

Contact Person & phone number:
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**Ozark/St. Francis National
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605 West Main
Russellville, AR 72801





Forest NNIS Projects Ozark/St. Francis National Forests

2011 Accomplishments

The objective of this project was to remove non-native invasive plant species from the landscape to allow for recolonization by native plant species. Species treated for included kudzu, tree-of-heaven, sericia, multiflora rose, fescue, mimosa, and honeysuckle. In 2011 a total of 800 acres were accomplished (20% initial stages; 80% intermediate).



Figure 1. Kudzu eradication



Figure 2. Fescue eradication

Year Project Initiated: 2011

Project completion: 2011

Report number: 8 of 8

FY11funding
Partners/Contractors/Coop:). Forest Service funding
\$115,812

Contact Person & phone number:
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**Ozark/St. Francis National
Forests**

605 West Main
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Pollinator Habitat through Prescribed Fire on the National Forests in Florida: 2011 Accomplishments

The National Forests in Florida successfully treated just over 97,000 acres in 2011 with prescribed fire and mechanical mulching. Over 90% of those acres represent maintenance or intermediate burns with the remaining acres in areas that have received an initial treatment to “re-set the clock” and return those areas towards desired conditions as they pertain to native understory vegetation, composition, and structure. At an average cost of \$28 per acre, prescribed fire still remains one of the most efficient and cost-effective means to create and maintain pollinator habitat in Florida. Figure 1. captures the beauty and subtle complexity of the savannahs on the Apalachicola National Forest. Few systems in North America can compare to the savannah's level of plant diversity. Prescribed fire plays a critical role in maintaining the savannahs in their optimum form while maximizing pollinator habitat. Figure 2. illustrates a healthy, resilient longleaf pine ecosystem with native understory vegetation. Many pollinators will continue to benefit from the Ocala's outstanding efforts in getting fire on the ground, especially in areas as beautiful and well-maintained as pictured in Figure 2.



Figure 2. Healthy, resilient longleaf pine stand on the Ocala National Forest

Year Project Initiated: 2011

Project completion: 2011

Report number: 1 of 1

Expenditures (through 10/2011): 2.7 million

FY11 funding: 98% Congressional Appropriations; 2% Special Appropriations to include funding from the Collaborative Forest Landscape Restoration Project on the Osceola National Forest.

Breakout by Category:

Maintenance Burns: 15,262 acres for \$427,336

Intermediate Burns: 72,363 acres for \$2,026,164

Initial Burns/Mechanical Mulching: 9,593 acres for \$268,604

Contact Person & phone number:

Micah Thorning 850.523.8553



Figure 1. Savannah on the Apalachicola National Forest



National Forests in Florida

Supervisor's Office

325 John Knox Road, Ste. F-100

Tallahassee, FL 32303



Native Plant Garden and Native Seed Collection USDA Forest Service-Savannah River 2011 Accomplishments

Program activities in FY2011 included maintaining a native plant garden and creating a future seed source at our seed collection area.

The native plant garden was established in 2008. Native plants were collected on the Savannah River Site (SRS), owned by the U.S. Department of Energy. We grow these plants in our onsite greenhouse prior to planting them in the garden. New plants have been added each year and plants will be labeled in FY2012.

This year we added native plants to our wiregrass seed collection area. The soil was tilled and the plants were grown in the greenhouse before being transplanted. These plants will be used as a seed source for future savanna restoration projects.

Seed collected from SRS and added to the garden and seed collection area include American beautyberry, sweetshrub, pinkscale blazing star (Figure 1), blazing star, whorled-leaf coreopsis, lance-leaved coreopsis, black-eyed Susan (Figure 2), butterfly weed, curly milkweed, sandhill milkweed, mist flower, dollarweed, sandhill thistle, coral honeysuckle, sandhill lily, dwarf iris, butterfly pea, and eastern green-eyes.



Figure 1. Pinkscale blazing star (*Liatris elegans*)



Figure 2. Black-eyed Susan (*Rudbeckia hirta*)

Year Project Initiated 2008

Project completion: Ongoing

Report number: 1 of 1

Expenditures (through 9/2011): \$3,500

FY11funding: NFXFE1

Partners/Contractors/Coop:

Contact Person & phone number:

Tracy Grazia (803) 725-8644
Tona Segar (803) 725-0316



USDA Forest Service-Savannah River
P. O. Box 700
New Ellenton, SC 29805



Savanna Restoration USDA Forest Service- Savannah River 2011 Accomplishments

In 2011, The USDA Forest Service-Savannah River (USFS-SR) completed several projects that restored native plant diversity across the Savannah River Site (SRS), owned by the U.S. Department of Energy. These projects directly or indirectly benefited breeding and feeding habitat for monarch butterflies and other pollinators.

We use prescribed fire to maintain open pine savannas and restore native plant diversity:

- Over 6,600 acres to maintain habitat
- Over 9,400 acres to restore habitat.

Additionally, 500 acres of habitat were mechanically treated during the initial stages of habitat restoration. These stands will be maintained with prescribed fire.

USFS-SR planted approximately 30,000 wiregrass plugs in four stands to restore native plant diversity in longleaf pine savannas. These grasses will aid in carry growing season fires once they are established.



Butterfly weed (*Asclepias tuberosa*)



Prescribed fire to maintain native plant diversity



Native plants after a growing season prescribed fire

Year Project Initiated 2011

Project completion: 2011

Report number: 1 of 1

Expenditures (through 9/2011): \$17,500 (wiregrass contract); \$67,750 (mechanical treatments), \$320,000 (prescribed fire)

FY11 funding: NFXFE1 (wiregrass and mechanical treatment)

Partners/Contractors/Coop:

Contact Person & phone number:

Tracy Grazia (803) 725-8644

Tona Segar (803) 725-0316



USDA Forest Service-Savannah River
P. O. Box 700
New Ellenton, SC 29805



Timber Stand Improvement Francis Marion and Sumter National Forests 2011 Accomplishments

The purpose of timber stand improvement activities is to restore 7,000 acres of native ecosystems and wildlife habitat, reduce hazardous fuels, and sustainably manage forests on the Francis Marion and Sumter National Forests.

Methods include: biomass thinning, first thinning, selective thinning, seedtree harvest, shelterwood harvest, and planting of native tree species.

Silvicultural treatments deployed on the Francis Marion and Sumter National Forests significantly improved the quality and distribution of wildlife habitat. Thinnings are critical to development of herbaceous understory vegetation for pollinators. Areas that have been thinned are prescribe burned on a 2 – 3 year rotation to help restore the native understory species composition.



Developing early successional habitat



Initial treatment to allow sunlight to reach the forest floor



Sleepy orange sulphur

Year Project Initiated: 2011

Project completion: 2011: 7,000 acres

Report number: 1 of 3

Expenditures (through 09/2011): \$150,000

FY11 funding: \$150,000

Partners/Contractors/Coop:) National Wild Turkey Federation

Contact Person & phone number:
Mark Danaher: 803-561-4068



**Francis Marion and Sumter
National Forests**
4931 Broad River Rd
Columbia, SC 29212-3530



Managed Wildlife Openings and Early Successional Habitat Francis Marion and Sumter National Forests 2011 Accomplishments

The primary objective of this project is to manage approximately 1,552 acres of wildlife openings and early successional habitat in order to benefit resident and migratory wildlife species, including pollinators, on the Francis Marion & Sumter National Forests.

While the primary emphasis was on bobwhite quail, wild turkey, and songbirds, the open areas proved to be very beneficial to many pollinator species.



Gulf fritillary nectaring in wildlife opening



Refurbished wildlife opening



Sunflower strip on ROW

Year Project Initiated: 2011

Project completion: 2011: 1,552 acres

Report number: 2 of 3

Expenditures (through 09/2011): \$310,000

FY11 funding: \$310,000

Partners/Contractors/Coop:) National Wild Turkey Federation

Contact Person & phone number:
Mark Danaher: 803-561-4068



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Alvin Stewardship Project

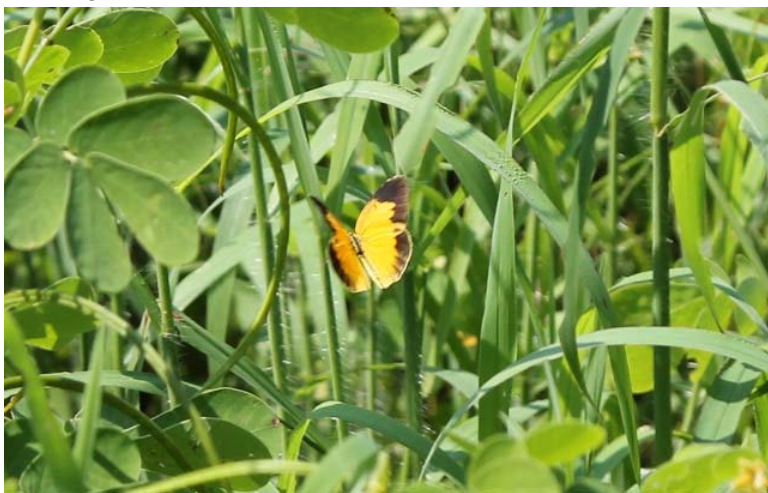
Early Successional Habitat

Francis Marion and Sumter National Forests

2011 Accomplishments

This project is actually a portion of a much larger project known as the Alvin Stewardship Project. The primary purpose of this particular goods for services project is to restore and enhance early successional habitat within the Alvin contract area on the Francis Marion National Forest.

This portion of the Alvin Stewardship Project involved rehabilitating, planting and maintaining approximately 5.4 acres of existing wildlife openings within the Alvin contract area. It also involved restoring approximately 30 acres of early successional habitat on land that was previously managed as dove fields. All log decks and primary skid trails are planned to be rehabilitated and planted within the 13 stands identified for thinning.



Sleepy orange within restored dove field



Cloudless sulphur in restored dove field

Year Project Initiated: 2011

Project completion: 2011: 30 acres

Report number: 3 of 3

Expenditures (through 09/2011): \$46,750

FY11 funding: \$46,750

Partners/Contractors/Coop:

Contact Person & phone number:

Mark Danaher: 803-561-4068



Restored dove field



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National Forests**
4931 Broad River Rd
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Understory Habitat Maintenance, National Forests in Alabama

2011 Accomplishments

Using a variety of integrated funding areas, the National Forests in Alabama restored, enhanced, or otherwise maintained early-seral pollinator habitat on approximately 35,000 acres in FY2011. This was accomplished using FS roadside mowing in the fall to eliminate woody encroachment, NNIS removal on over 900 acres, understory plant (including *Asclepias michauxii*) seed collection and propagation and prescribe burning of over 70,000 acres. Approximately half these burning acres were in open to semi open forest.

While most of these activities are typically performed annually for other wildlife species (including bob-white quail and red-cockaded woodpecker), the value of these activities to native pollinators including the declining monarch and southeastern blueberry bee, can not be overlooked. Dozens of wildflower species we maintain in our open pine and mixed pine-hardwood stands are hosts to adult and larval butterflies and provide pollen for native bees and pollinating flies.



Figure 2. Prescribed burning in upland pine stands.



Figure 1. *Asclepias tuberosa* is common in the fire-maintained stands of the Alabama Districts.

Year Project Initiated: 2010

Project completion: 2015

Report number: 1

Expenditures (through 10/2010): 750,000

FY11 funding 750,000

Partners/Contractors/Coop:)
NRCS Coffeeville Plant Material Center

Contact Person & phone number:
Ryan Shurette, Forest Botanist, 334-241-8143



National Forests in Alabama
2946 Chestnut St.
Montgomery, AL 36107