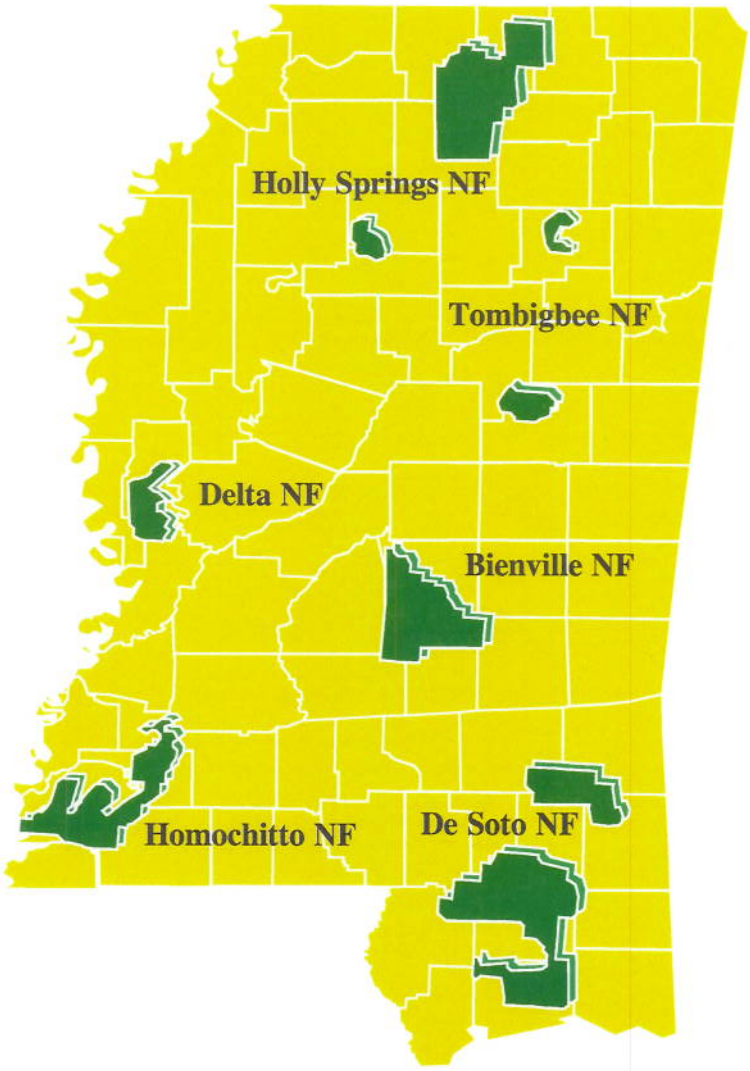
U. S. Department of Agriculture
Forest Service
Southern Region

Fiscal Year 2011 Monitoring Questions
National Forests in Mississippi



June 2012

Monitoring and Evaluation Questions and Answers
FY 2011

The National Forests in Mississippi (NFsMS) is currently revising its Forest Land and Resource Management Plan (Forest Plan). Monitoring and evaluation of Forest Plan actions is a continuous process that occurs throughout the revision and implementation process.

During the forest plan revision process, the monitoring and evaluation documented for fiscal year (FY) 2011 is being presented in an abbreviated question and answer format.

Margrett L. Boley
Forest Supervisor
National Forests in Mississippi

6/28/2012
Date

TABLE OF CONTENTS

What is the current forest type classification breakdown compared to the status at plan implementation?

FY 2011 forest type data from the vegetation database (FSVeg) queries were analyzed to determine acreage by broad forest cover types (working groups) within lands classified as suitable for timber. The acreages are compared to similar figures compiled from the 1985 Forest Plan and FY 2010 to determine the magnitude and direction of change in forest cover types.

Since the 1985 Forest Plan, there has been an increase in acreage of pine-hardwood and longleaf, and a decrease in the yellow pine, slash pine, and hardwood forest types (note: yellow pine includes shortleaf and loblolly pine). The distribution in FY 2011 has changed slightly from the FY 2010 monitoring report. Pine-hardwood decreased by 3% and loblolly pine decreased by 1%, while hardwood and slash pine increased by 1% each. However, longleaf pine and shortleaf pine distributions remained the same. Figures 1, 2, and 3 illustrate the percentage of land in each forest type in 1985, FY 2010, and FY 2011 respectively.

Figure 1. Forest types of NFsMS, 1985.

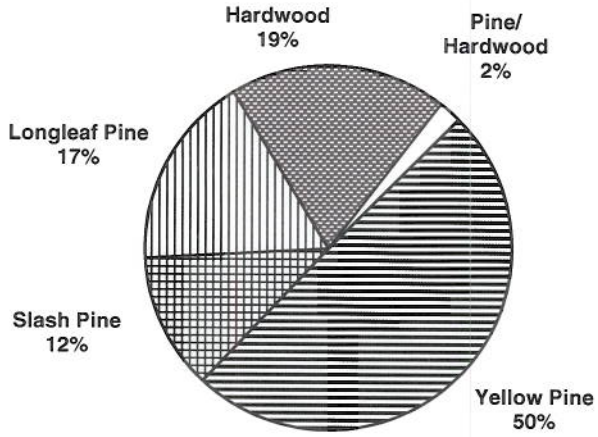


Figure 2. Forest types of NFsMS, 2010.

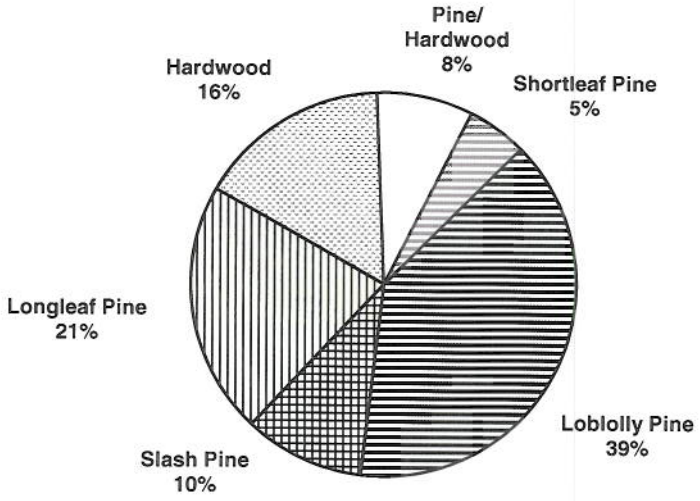
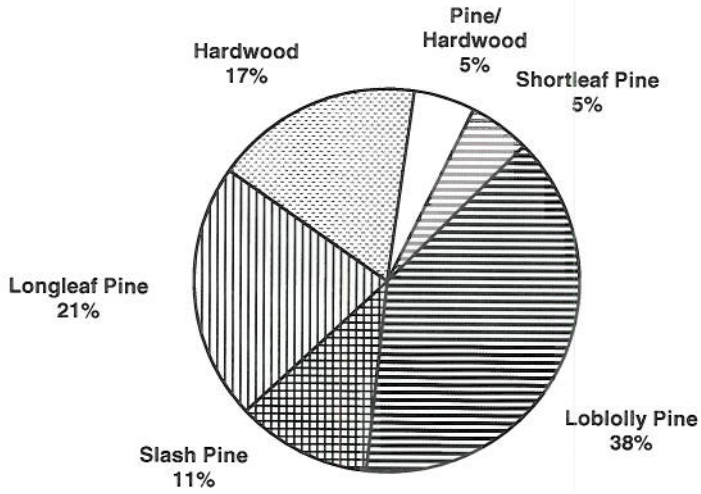


Figure 3. Forest types of NFsMS, 2011.



What is the current age class composition of the Forest?

Table 1 displays the percent of forested acres for the NFsMS by ten year age classes based on inventory in FSVeg.

Previous monitoring reports documented a downward trend of regeneration in the 0-10 year age class from 11% in FY 2000 to 3% in FY 2010. This age class continued its downward trend and comprised 2% of the age class distribution in FY 2011.

One of the objectives in determining areas selected for regeneration is balancing age class distribution. Currently, the three age classes falling in the 61-90 year age distribution

have a higher proportion of acres than other age classes (43%). With lower regeneration rates, the forest is now compiled of more acreage in older age classes. Seven percent of the forest is now greater than 100 years old.

Table 1. NFsMS Age Class Acreage Distribution as of 2/22/2012.

Age Class	Percent of Forested Acres*
0 - 10	2
11 - 20	9
21 - 30	13
31 - 40	9
41 - 50	6
51 - 60	6
61 - 70	9
71 - 80	20
81 - 90	14
91 - 100	6
101 - 110	3
111 - 120	2
121 - 130	1
131 +	1

*Sum total of forested acres >100% due to rounding percentages.

What were the harvest accomplishment trends for the last 10 years in terms of volume and acres?

Recent harvest accomplishment trends are summarized in Table 2. Note the harvest increase in FY 2006 represents the salvage timber resulting from Hurricane Katrina. In most cases the salvage timber was harvested utilizing a moderate to heavy thinning.

Table 2. NFsMS timber harvest volume and acres 2002 – 2011.

Fiscal Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Volume - MMBF	33	42	89	77	308	62	68	72	75	63
Volume - MMCF	6	8	18	15	62	12	14	15	16	13
Intermediate Acres (x 1,000)	3	2	7	6	112	6	8	7	6	4
Regeneration Acres (x 1,000)	3	1	3	2	2	0.3	1	1	1	0.7

What progress was made in the control of non-native invasive species in FY 2011?

Non-native invasive species (NNIS) are an ever-increasing problem on NFsMS. These species threaten forest health and ecosystems by reducing natural diversity and habitat for fish, wildlife and native plants, as well as affecting soil stability. Effective treatment and control is compounded by the intermingled ownership pattern of federal, state, county, and private land throughout the state. The accelerated spread of noxious weeds has led to increased public awareness of the environmental problems associated with weeds. The National Forests in Mississippi is a major partner in the Mississippi Cooperative Weed Management Area along with USDA Natural Resources Conservation Service (NRCS), Mississippi Department of Transportation (MDOT), Federal Highway Administration, Mississippi Forestry Commission, and others.

Each year, the NFsMS uses the noxious weed control strategy to manage NNIS. The noxious weed control strategy outlines five emphasis areas which include: (1) cooperation, (2) education and prevention, (3) inventory, (4) control, and (5) monitoring. Kudzu and cogongrass are the priority species of concern although other pest plants of interest include water hyacinth, Nepalese browntop, tropical soda apple, Nonnative bamboos, nonnative wisterias, and Chinese silvergrass. Table 3 shows the number of acres treated for NNIS by district for FY 2008-2011.

Table 3. Acres treated for non-native invasive species by year on NFsMS lands.

District	2008	2009	2010	2011
Bienville	0.0	93.0	65.0	27.0
Chickasawhay	2,137.0	62.5	105.0	46.8
Delta	14.0	10.0	0.0	0.0
De Soto	221.0	405.0	850.0	150
Holly Springs	461.0	1,078.0	2025.0	2025.0
Homochitto	30.9	73.0	58.5	1107.4
Tombigbee	13.0	313.0	432.0	427.0
Total	**2876.9**	**2034.5**	**3535.5**	**3783.2**

Cogongrass is aggressively spreading on roadsides within the De Soto, Chickasawhay, Bienville, and Tombigbee Ranger Districts and has recently been discovered on the Homochitto Ranger District. The National Forests in Mississippi is a member of the Mississippi Cogongrass Task Force, assisting partner agencies in training and educational events. The Task Force has taken the lead role in developing a regional coordination strategy that includes all invasive species. Treatment is planned and accomplished annually. Districts have also partnered with landowners, MDOT, our armed forces, and others who contribute labor to treat cogongrass infestations.

Kudzu is an invasive species on the Holly Springs and Tombigbee Ranger Districts impacting an estimated 20,000 and 7,000 acres respectively. It also occurs on the Bienville, De Soto, and Homochitto Ranger Districts, but to a much lesser extent.

Statewide, the estimated loss in timber related revenues due to kudzu infestations is 54 million dollars per annum. The National Forests in Mississippi has completed a National Environmental Policy Act (NEPA) analysis for a systematic program to control and reduce kudzu infestations on the Holly Springs, Tombigbee, and Bienville Ranger Districts. The majority of the infested areas are within 150 to 200 feet of roads. The program emphasizes treatment of current and prevention of future infestations of kudzu on all three districts, with the goal of eventual elimination of this invasive species. The control strategy for this NNIS is: 1) locate and eradicate small isolated infestations of kudzu, preventing establishment of new patches; 2) control and stop the spread of well-established kudzu populations by reducing the vigor and health of these patches with repeated treatments over time until eradication has occurred; 3) continue to monitor treated patches to ensure that kudzu is eradicated.

Previously, the control of kudzu in north Mississippi had been considered too complex to address due to the expansive coverage and growth rate of kudzu combined with the mixed land ownership. The Holly Springs Ranger District has formed a Kudzu Coalition (The Coalition), which consists of local, state, and federal agencies along with conservation groups and academia, to address these challenges. A baseline survey of Mississippi's 82 counties was completed during July-August 2004 and found kudzu in 72 counties. This survey identified approximately 546,000 acres of privately-owned forest land impacted with kudzu, and 17 counties with kudzu infestation of more than 10,000 acres. Since then, The Coalition has applied for several state and federal grants and has created a Memorandum of Understanding (MOU) amongst its partners to better leverage funds and share expertise in the treatment of kudzu. These funds have allowed The Coalition to educate the public about kudzu and control methods to combat this invasive weed. As a result, private landowners, utility companies, conservation organizations and local, state, and federal officials are collaborating to control kudzu across the landscape.

Starting in FY2010, one contract has been used to accomplish all kudzu control for both the Holly Springs and the Tombigbee Ranger Districts which requires the contractor to buy and apply the herbicide across each district. For FY 2010 and 2011, this contract was used to treat the aforementioned acreages while also including an additional 1700 acres for treatment during 2010 - 2012.

What prescribed burning accomplishments were completed in FY 2011?

Dry weather patterns played a significant role in the reduction of prescribed burning acreage for both dormant and growing season burning in FY 2011. FY 2011 statewide total accomplishments were approximately 50 percent of what they were in FY 2010. The following table illustrates accomplishments by Ranger District for FY 2011.

Table 4. Prescribed burning accomplishments for FY 2011 by Ranger District on NFsMS.

District	Dormant Season Accomplishment (Acres)	Growing Season Accomplishment (Acres)	District FY11 Accomplishment (Total Acres)
Bienville	15,928	5662	21,590
Chickasawhay	9190	0	9190
De Soto	31,810	0	31,810
Delta	0	0	0
Holly Springs	7894	7894	15,788
Homochitto	15670	9939	25,609
Tombigbee	1700	2372	4072
Total Acres	82,192	25,867	108,059

How did the current prescribed burning accomplishments compare to previous years?

The following table illustrates accomplishments by Ranger District for FY2007 through FY2011.

Table 5. Prescribed burning accomplishments for FY2007-2011 by Ranger District on NFsMS

District	2007	2008	2009	2010	2011
Bienville	32,243	20,818	36,426	27,184	21,590
Chickasawhay	33,178	20,703	33,190	29,530	9190
De Soto	86,447	92,929	110,346	101,384	31,810
Delta	9	34	99	0	0
Holly Springs	18,447	14,481	21,036	23,354	15,788
Homochitto	37,903	31,009	32,066	29,668	25,609
Tombigbee	22,528	17,681	18,002	17,043	4072
Total	230,755	197,655	251,165	228,163	108,059

How is the Forest Service monitoring surface water quality?

Rain or spring water that can be accessed in flowing drains, creeks or rivers is surface water. According to the Mississippi Department of Environmental Quality (MDEQ), "over 93% of drinking water supply in Mississippi originates from the eighteen major aquifers in the state. Only three public surface water systems presently operate in the state: (1) the city of Jackson uses a combination of ground water and surface water from

the Ross Barnett Reservoir/Pearl River; (2) the cities of Tupelo and Fulton receive their drinking water from the Tombigbee River; and (3) Short-Coleman Water Association diverts water from Pickwick Lake." (MSDEQ website).

In monitoring surface waters, the Forest Service is working with Alcorn State University to take water samples and check for changes in temperature, dissolved oxygen, depth, pH, and turbidity parameters on various district watersheds. Additionally, tests for fecal coliform and e-coli are conducted at swim areas at Clear Springs and Okhissa Lake on the Homochitto Ranger District and in other recreational areas across the state. Watersheds (creeks with active flow) above and below active oil and gas fields have been monitored by the Homochitto Ranger District since the early 1970's. An increase of sodium chloride in the sample is a good indicator of a saltwater spill, leak or some other undesirable event in a field. Originally sodium chloride was the only substance tested for, but as affordable testing equipment has become available the parameters of the testing have grown. Today the NFsMS monitor conductivity, salinity, pH, temperature and total dissolved solids (TDS).

How is the Forest Service monitoring for subsurface water quality?

Subsurface water consists of ground water or capillary water. Groundwater exists in the zone of saturation, and may be fresh or saline. Most private freshwater or drinking water wells in MS are from 100 to 400 feet deep. According to the MDEQ, the average well depth for public water systems in MS is approximately 780 feet.

Contaminated subsurface water can show up in the surface water. If an aquifer feeding a spring becomes contaminated, the presence of a pollutant will be detected and indicated by a change in TDS with our current monitoring system. Currently the FS does not require subsurface testing/monitoring for oil/gas operations. Monitoring for subsurface water quality is primarily controlled by the state of Mississippi through the Mississippi Oil and Gas Board (MSOGB) and MDEQ through statewide rules and regulations. The Mississippi Oil and Gas Board is charged with the regulations concerning the drilling, casing and plugging of wells to prevent: 1) the escape of oil or gas out of one stratum to another; 2) the intrusion of water into an oil or gas stratum from a separate stratum; 3) the pollution of freshwater supplies by oil, gas or saltwater. Mississippi code of 1972, as amended, SEC. 17-17-47 gives exclusive authority to MSOGB for regulation of oil field waste products(#53-1-17. Powers of Board). Mississippi Department of Environmental Quality regulates all ground-water issues other than those associated with oil and gas and conducts research into environmental issues (MS Commission on Environmental Quality, Regulation LW-2, "Surface Water and Groundwater Use and Protection"). In addition, the Bureau of Land Management (BLM) and United States Geological Survey (USGS) assist the state of Mississippi in monitoring subsurface water.

http://www.deq.state.ms.us/mdeq.nsf/page/FS_SurfaceWaterQualityAssessments?OpenDocument

Groundwater site link at the MS O&G site:
http://www.gwpc.org/home/GWPC_Home.dwt

Mississippi USGS info:
http://ms.water.usgs.gov/

Has the overall diversity of fishes, community structure and habitat availability changed in any of the National Forest units?

From 1999-2003 fish surveys were conducted on 320 sites on streams on the Forest by the Center for Bottomland Hardwoods Southern Research Station. Fish were collected using backpack electrofishing units and seines. Numbers and species of fish present at sample sites were recorded, along with some descriptions of physical habitat. Objectives during this period were to establish baseline data on fish communities and habitat in selected streams.

In 2009, a random subset (38 sites) of previously sampled sites was re-sampled by the University of Southern Mississippi Department of Biological Sciences using the protocols established in the previous survey. Sites were selected so that the proportional survey effort in each NFsMS unit was similar to earlier efforts. The objective was to assess changes in fish diversity, community structure and habitat availability. Environmental variables (habitat) measured included: stream width, velocity, depth, large woody debris, small woody debris, detritus, overhead canopy, pools, riffles, substrate, and vegetation.

Historical surveys (hereafter pre-2009) at the 38 sites included 8232 individuals representing 81 species, while the 2009 surveys yielded 9316 individuals comprising 73 species. The blackspotted topminnow (*Fundulus olivaceus*) was the most commonly sampled species in both pre-2009 and 2009 datasets, occurring 77.5% and 86.1% of samples, respectively.

Fish diversity (rarefied and Shannon's Diversity index) was generally lower in 2009 than in pre-2009 samples. This may be due to some combination of limited temporal scope of sampling (one year compared to multiple years of sampling) and natural annual variability (Schaeffer and Clark 2011). Fish assemblages in the 2009 samples were similar to the pre-2009 samples. When looking at individual species, patterns of abundance and occurrence remained stable. Species that were unique to either pre-2009 or 2009 samples were rare both in abundance and number of occurrences. There were no significant changes in environmental variables or presence of available fish habitat.

What progress has been made in gopher tortoise management in FY 2011?

Generally, all prescribed burns improve gopher tortoise habitat. Although the focus is on growing season burns to restore gopher tortoise habitat, it is not always possible due to funding, smoke management regulations, and environmental factors such as weather conditions. Dormant season fire can be a beneficial tool to maintain habitat and reduce fuel content to allow for a growing season fire at a later date. As a general strategy, the NFsMS plan to first conduct dormant season burns to reduce the fuel load before implementing growing season burns. Table 6 illustrates seven years of burning history on the De Soto and Chickasawhay Ranger Districts. Although it indicates that burning was low in FY2006, this is a direct result of impacts from Hurricane Katrina and the following short-term drought conditions. In 2011, growing season burning was not implemented due to smoke management issues and drought.

Table 6. Recent Prescribed Burning Accomplishments, De Soto and Chickasawhay Ranger Districts.

	2004	2005	2006	2007	2008	2009	2010	2011
Desoto								
Dormant	63,700	70,457	13,044	74,017	76,562	81,270	85,103	31,810
Growing	28,377	22,651	1,520	12,430	10,944	30,753	16,281	0
Total	**92,077**	**93,108**	**14,564**	**86,447**	**87,506**	**112,023**	**101,384**	**31,810**
Chickasawhay								
Dormant	20,232	18,107	14,496	8,785	13,595	25,667	18,657	9,100
Growing	17,002	18,204	0	24,393	7,108	7,513	10,873	0
Total	**37,234**	**36,311**	**14,496**	**33,178**	**20,703**	**33,180**	**29,530**	**9,100**

The Mason Creek Habitat Restoration Stewardship Project began on the Chickasawhay Ranger District in 2010. This is a 27,000 acre stewardship project designed to address critical habitat needs for both game and non-game species, to control noxious weeds, and to improve gopher tortoise habitat on "suitable soils." In 2011, approximately 599 acres of high density suitable soil habitat was thinned to a basal area more conducive to the gopher tortoise. Additionally, 589 acres of midstory removal was completed to promote grassy understory conditions for the tortoise.

The De Soto Ranger District signed the Decision Notice for the Gopher Tortoise Habitat Improvement with Herbicide Environmental Assessment (EA) on August 20, 2007. The purpose of this EA was to restore and improve habitat for the federally threatened gopher tortoise. This EA includes the herbicide treatment of all gopher tortoise potential habitat on the District utilizing several different herbicides and methods. Under this EA, The Nature Conservancy (TNC) sprayed 12.7 acres of cogongrass in FY11 on USFS land in the Camp Shelby Special Use Permit (SUP) area. Gopher tortoise habitat improvement utilizing herbicides will continue in the future until new information warrants a revision to the EA.

The "Ecosystem Restoration for Gopher Tortoise and Red Cockaded Woodpecker Habitat" project for the De Soto Ranger District was signed in 2008. This project proposes to improve gopher tortoise and red-cockaded woodpecker (RCW) habitat on pine and pine-hardwood forests through thinning and longleaf restoration (removal of offsite pine species and restoring longleaf pine) outside of the Camp Shelby Special Use Permit area. This authorized fuels reduction project was proposed under the Healthy Forest Restoration Act of 2003 (HFRA) Title 1, Section 102(a) (5)-Threatened and Endangered (T&E) Species Habitat, to provide better protection from catastrophic wildfires for T&E species habitat by reducing hazardous fuels and restoring safer fire-dependent ecosystem conditions. Under this decision, in FY 2011 820 acres of longleaf pine were thinned, 282 acres of longleaf were re-established, and an additional 408 acres focused on ecosystem restoration.

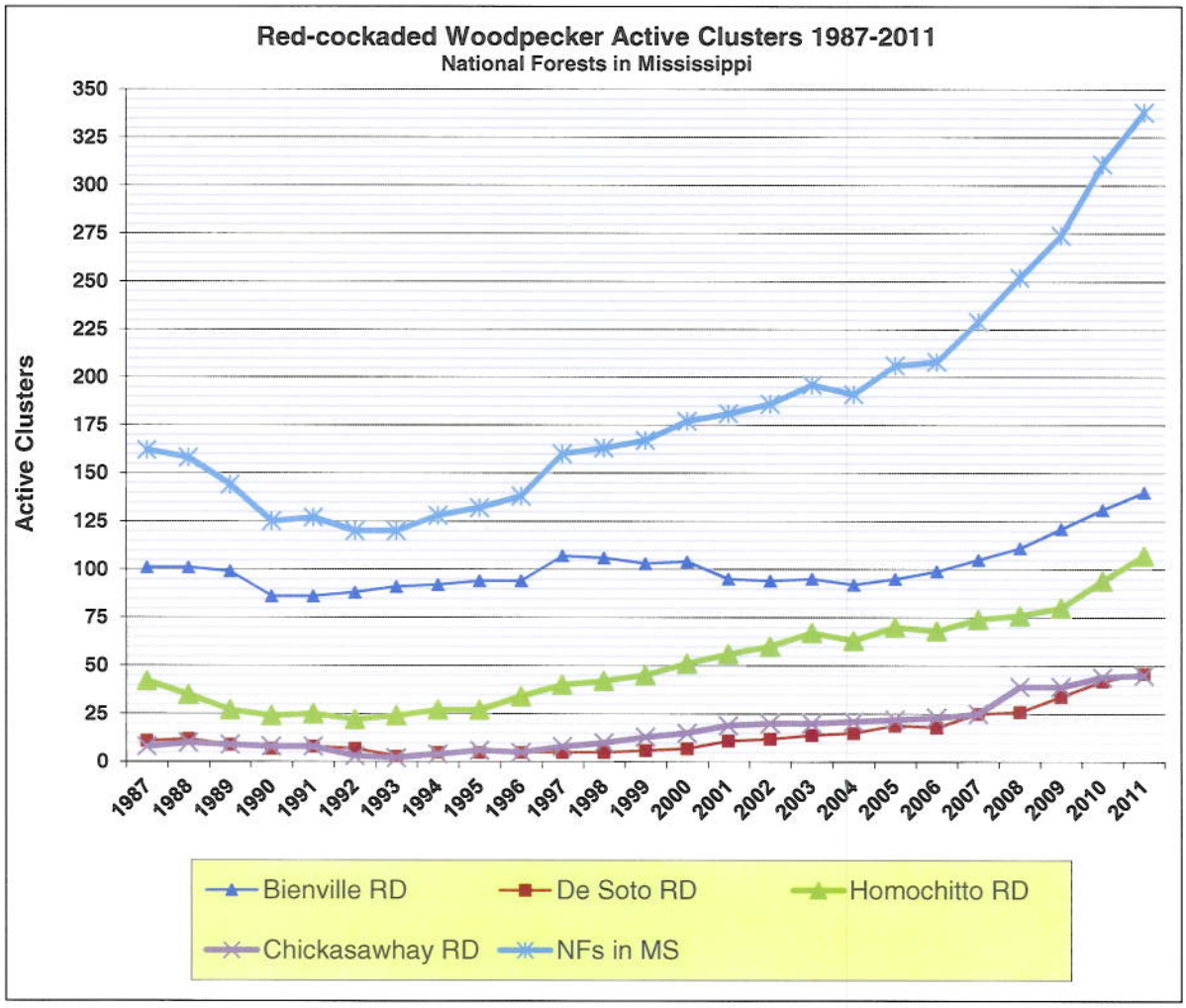
The Camp Shelby Stewardship Project Proposal was finalized and approved by the Regional Forester in 2011. Under this proposal, over the next 5-6 years, the DeSoto Ranger District, TNC, and Camp Shelby expect to improve 900 acres of gopher tortoise habitat using herbicide, improve 25 acres of wildlife openings by restoring native herbaceous groundcover, improve 700 acres by thinning and control 140 acres of cogongrass by treatment within the Camp Shelby SUP.

What progress toward reaching red-cockaded woodpecker population goals was made in FY 2011?

The Revised Recovery Plan for the RCW (2003) lists three key management actions as essential to the success of the recovery of this species: 1) development of large old pines to serve as cavity trees, 2) restoration and maintenance of appropriate habitat structure, and 3) protection of existing cavity trees. The National Forests in Mississippi continue to improve and maintain favorable habitat conditions for RCW using different strategies tailored to individual populations and habitat conditions. It is the implementation of these strategies, carefully designed to meet the conditions of each of four very different populations and habitat, which will continue to enhance RCW recovery on the NFsMS.

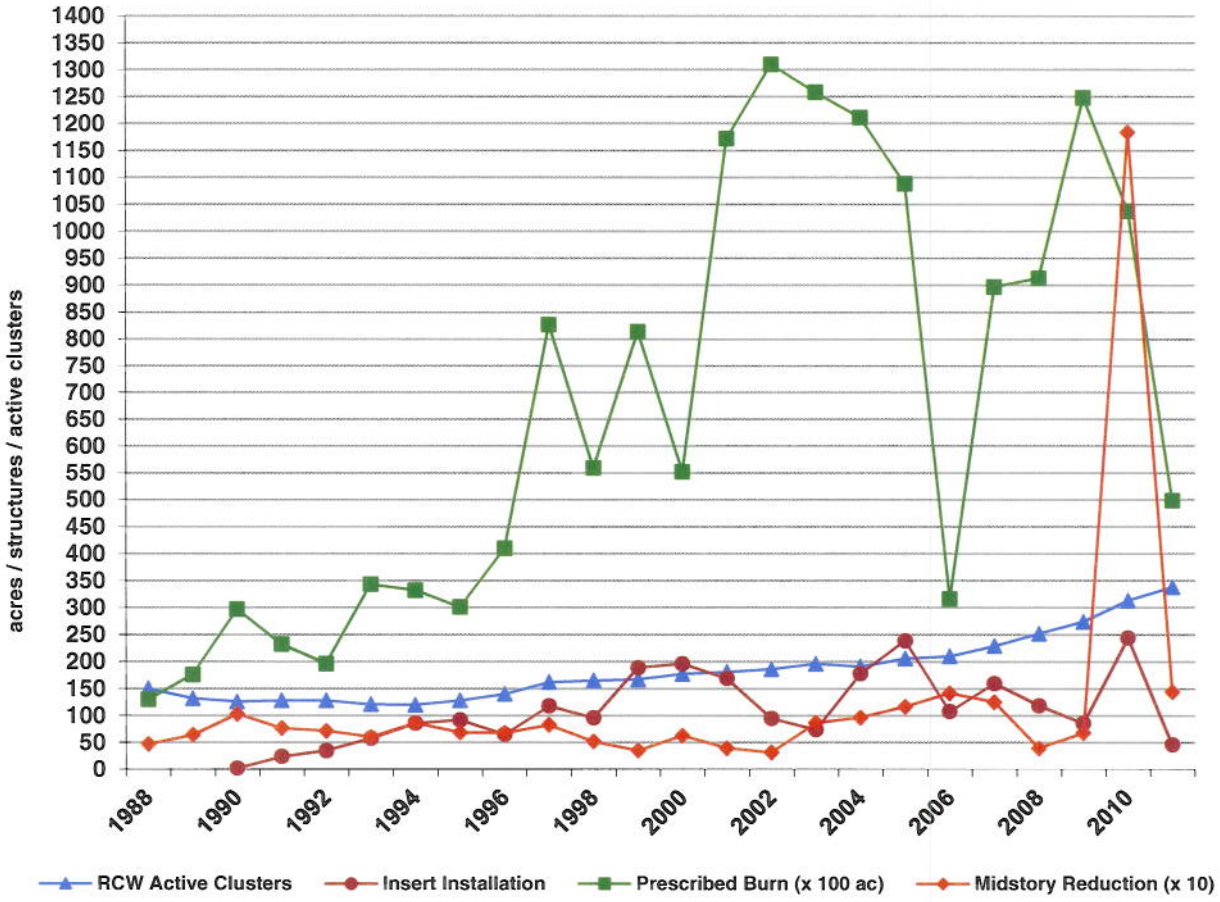
Currently there are 338 total active RCW clusters on the NFsMS, an increase from the 313 active clusters listed in the FY2010 Monitoring and Evaluation report. Although still far short of population goals of 1,595 active clusters, the numbers of active clusters have increased during the past 20 years (Figure 4).

Figure 4. History of active RCW clusters on NFsMS.



Although total acres of mature yellow pine forest has declined since 1981, the condition of the remaining pine forest habitat is much improved due to an aggressive prescribed fire program, application of midstory control, and installation of artificial cavities. Aggressive application of prescribed fire has been critical to maintaining open habitat conditions on the four districts where RCW occur. Installation and maintenance of inserts and management of natural cavities have corresponded with increases in both the number of individuals in family groups (increased group size), and in numbers of clusters (population expansion) on the Bienville, Chickasawhay, De Soto and Homochitto Ranger Districts. Maintenance of cavities on all units is critical to RCW occupation and population expansion. Off-site pine continues to be restored to longleaf pine in areas where longleaf pine historically occurred. As these young longleaf stands are released from competition and grow into mature stands, increased acreage in this forest type will enhance habitat conditions for RCW. Figure 5 summarizes RCW habitat improvements and population trends on the NFsMS since 1988.

Figure 5. RCW habitat improvement on the NFsMS.



In addition to habitat improvement efforts on the NFsMS, RCW populations have been augmented in recent years by translocating birds from larger populations. These translocations have increased overall populations and enhanced genetic integrity on districts with smaller populations (Chickasawhay and De Soto Ranger Districts). On the Chickasawhay, augmentation has been critical to the survival of the species. In 1992, only three single males remained on the district. With the augmentation of females to these males, and continued augmentation of both singles and pairs, this population now contains 45 active groups. The De Soto population reached 46 active clusters and 44 potential breeding groups (PBG) in 2011. Further growth is expected with current management, natural recruitment, and future translocations.

What is the status of forest bird inventories?

Conservationists have long been concerned about apparent range-wide population declines of many forest and grassland birds, especially those that migrate to Central and South America (neotropical migrants). A coordinated program for monitoring land bird populations has been developed to provide information about population status and trends of breeding birds on national forests in the Southern Region. It involves several thousand permanent monitoring stations on national forests across the South, covering all major physiographic regions and habitat types. Each point is visited yearly using standard procedures to record all birds present. The resulting data resides and is analyzed in a Regional database (R8 Bird). Regional analysis has recently been completed from 35,486 counts at 4,945 point-count stations on 14 national forests in the Southern Region for the period from 1992 to 2004. In this analysis, there was evidence that population increased for 42 species and decreased for 38 species on national forests in the Southern Region as a whole.

Annual bird point counts for the NFsMS were begun in 1994 and are now conducted annually on each district. From 1994 to July 2011, 135,959 individual birds of 153 species from 10,360 bird point counts have been recorded (Table 7). Of the 29 priority species outlined in the Landbird Conservation Strategy, 23 were detected on the NFsMS during the sample period. Species not detected during the point counts were American swallow-tailed kite, American woodcock, cerulean warbler, Henslow's sparrow, loggerhead shrike, and Mississippi sandhill crane.

Table 7. Number of birds and species reported on point counts from 1994 to 2011.

Forest	Total Number of Birds	Number of Species	Number of Point Counts	Number of Years Reported
Bienville NF	17,970	85	1,662	13
De Soto NF	7,648	77	716	12
Homochitto NF	44129	99	3,506	16
Chickasawhay NF	9,376	93	704	13
Delta NF	13,152	80	686	9
Holly Springs NF	26,034	94	1,493	13
Tombigbee NF	17,650	87	1,593	12
TOTALS	135,959	153**	10,360	

**Number of species that occur on at least one of the individual forest counts.

The five most common species detected for each forest are reported in the following table. Two of the most common species, prothonotary warbler and hooded warbler, are priority species outlined in the Landbird Conservation Strategy for the East Gulf Coastal Plain Forests.

Table 8 . Five most common birds by Ranger District

Five Most Common Birds by Ranger District					
Bienville RD	NOCA (7.65)	CARW (7.64)	AMCR (7.53)	ETTI (7.50)	BLJA (7.17)
De Soto RD	EATO (8.83)	NOCA (7.65)	CARW (6.37)	YBCH (6.33)	COYE (6.18)
Homochitto RD	REVI (8.66)	ETTI (6.12)	NOCA (5.92)	HOWA (5.88)	PIWA (5.74)
Chickasawhay RD	CARW (7.06)	REVI (6.23)	PIWA (5.75)	HOWA (5.58)	NOCA (5.55)
Delta RD	NOCA (8.51)	INBU (7.93)	CARW (7.35)	PROW (6.81)	RBWO (6.65)
Holly Springs RD	INBU (8.03)	PIWA (7.48)	ETTI (5.82)	REVI (5.33)	NOCA (4.53)
Tombigbee RD	REVI (9.49)	PIWA (7.31)	ETTI 7.25	NOCA (6.12)	AMCR (5.94)
NFsMS	REVI (6.40)	NOCA (6.23)	ETTI (5.91	PIWA (5.84)	CARW (5.12)

NOCA = Northern Cardinal
EATO = Eastern Towhee
REVI = Red-eyed Vireo
CARW = Carolina Wren
INBU = Indigo Bunting
ETTI = Eastern Tufted Titmouse
PIWA = Pine Warbler
AMCR = American Crow
YBCH = Yellow-breasted Chat
HOWA = Hooded Warbler
PROW = Prothonotary Warbler
BLJA = Blue Jay
COYE = Common Yellowthroat
RBWO = Red-bellied woodpecker
*Number in parentheses () is percent of bird total count represented by species.

Analysis of bird point count monitoring for species of birds selected as management indicator species (MIS) has been reported upon in the report, "Management Indicator Species Population and Habitat Trends." Evaluation of this data is reported therein and is not repeated in total here, although it is summarized and new findings available since that report was completed are mentioned where applicable.

Monitoring of distribution and abundance of breeding forest birds (including neotropical migrants) is an important aspect of the Forest Service commitment to providing habitats for these important indicators of habitat quality and stability. To that end, breeding bird point counts should continue with suitable adjustments to numbers of point counts as needed for statistical validity and to ensure that point counts are being made in the proper habitats.

What accomplishments in Heritage Resource Program management have been completed for FY 2011?

The National Forests in Mississippi continue to monitor heritage resource sites. Table 9 lists the sites on the Chickasawhay Ranger District evaluated in 2011.

Table 9. Heritage resource sites evaluated in FY 2011 on the Chickasawhay Ranger District.

Chickasawhay Ranger District:		
The following sites have been checked for boundary integrity, erosional damage, and ground disturbing activity. No damage was found on any site monitored.		
22-GN-945	22-JO-754	22-WA-1134
22-GN-946	22-WA-522	22WA-1138
22-GN-947	22-WA-530	22WA-1139
22-GN-948	22-WA-531	22WA-1141
22-GN-949	22-WA-635	22-WA-1059
22GN950	22-WA-642 Tanya's Knoll	22-WA-1060
22-JO-641	22-WA-665	22-WA-1086
22-JO-735	22-WA-676 Gopher Farm	22-WA-1114
22-JO-753	22-WA-678	22-WA-1115

What Stewardship contracting program accomplishments occurred from 2005 – 2011?

Tables 10 and 11 display the stewardship program accomplishments for FY's 2005 - 2011. Additional stewardship proposals are in the developmental/collaborative process.

Table 10. Stewardship proposals approved.

District	Proposal Name	Emphasis**	Project Acres	Date Approved
Bienville	RCW/Prairie	RCW	414	03/28/2005
Chickasawhay	Ecosystem Restoration	RCW/GT/NNIS	100,000	10/24/2005
Chickasawhay	Mason Creek	RCW/GT/NNIS	27,000	09/23/2008
Bienville	RCW Habitat Expansion	RCW	24,381	09/28/2009
De Soto	Camp Shelby	RCW/GT/NNIS/WL	117,000	09/01/2011
Total			268,795	

**RCW = Red-cockaded Woodpecker GT = Gopher Tortoise
NNIS = Non-native Invaisive Species WL = Wildlife

Table 11. Stewardship contracts awarded.

District	Contract Name & Type	Emphasis	Contract Acres	Date Awarded
Bienville	Bienville Prairies (IRTC)	Prairie Restoration	70	FY 2006
Chickasawhay	Chick ER # 1 (IRTC)	RCW/GT/NNIS	1,067	FY 2006
Chickasawhay	Chick ER # 2 (IRTC)	RCW/GT/NNIS	782	FY 2007
Bienville	Stewardship Thin (IRTC)	RCW/Wildlife	391	FY 2008
Chickasawhay	Chick ER # 3 (IRTC)	RCW/GT/NNIS	2,492	FY 2008
Chickasawhay	Chick ER # 4 (IRTC)	RCW/GT/NNIS	257	FY 2009
Chickasawhay	Mason Cr. WL (Agreement)	RCW/GT/NNIS	788	FY 2009
Bienville	Stewardship Service Contracts (2)	RCW/Wildlife	1,691	FY 2010
Chickasawhay	Stewardship Service Contracts (3)	RCW/GT/Fisheries	2,581	FY 2010
Chickasawhay	Turkey Fork Stew (IRTC)	RCW/GT/NNIS	510	FY 2011
Chickasawhay	Mason Creek # 2 (IRTC)	RCW/GT/NNIS	678	FY 2011
Bienville	Stewardship Service Contracts Supplies (1)	RCW	Herbicide Purchase for Mid-story Contract	FY 2011
Chickasawhay	Stewardship Service Contracts (2)	RCW/Fisheries	537	FY 2011
Chickasawhay	Stewardship Service Contracts (4)	RCW	Herbicides, Helicopter Time, Ignition Spheres,Marking Paint	FY 2011
Total			**11,844**	

Implementation of approved projects and approval of new proposals is expected to continue over the next several years under stewardship authorities. New proposals will be focused on one or more of the following land management goals contained in the law:

- road and trail maintenance or obliteration to restore or maintain water quality

- soil productivity, habitat for wildlife and fisheries, or other resource values
- use of prescribed fires to improve the composition, structure, condition and
- health of stands or improve wildlife habitat
- removing vegetation or other activities to promote healthy forests, reduce fire
- hazards, or achieve other land management objectives
- watershed restoration and maintenance
- restoration and maintenance of wildlife and fish habitat
- control of noxious weeds and exotic weeds, and re-establishment of native plant species.

What important activities occurred in FY 2011 to improve the transportation system and public safety?

Twelve road bridges were replaced with stimulus funds in FY11, completing an American Recovery and Reinvestment Act (ARRA) project to replace 21 deficient road bridges across the forest. In addition, appropriated funds were used to replace an additional bridge. As a result of these projects, the NFsMS does not have any weight limited bridges; all bridges are now capable of supporting full legal highway loads.

The National Forests in Mississippi is also working with MDOT State Aid to replace county bridges in and around the national forests under the Forest Highway Program. FY11 was the fourth year of a five year program plan. Under this program, the NFsMS will fully fund the replacement of 27 bridges. Although most of the work during the first three years involved planning and design, several bridges have been completed or are under construction, with the remainder to be finished by FY12. The Forest Highway Program, administered by the Federal Highway Administration, allows the NFsMS to improve the transportation infrastructure on critical non-federal routes in and around national forests. Practically speaking, this program enables the NFsMS to replace weight limited county bridges that are hindering the accessibility of logging vehicles, fire transports, construction equipment, and other heavy trucks and equipment to certain areas of the forest.

What major changes were made to the forest transportation system to increase efficiency?

In FY11, 27 miles of road on the De Soto Ranger District were decommissioned (permanently removed from service). Virtually all of these roads were already closed to public use, so impacts to the traveling public were negligible. The work required for decommissioning varied from road to road, but generally involved a combination of activities such as removing culverts, ripping and/or disking the roadbed, installing waterbars, restoring natural contours, and seeding. The National Forests in Mississippi historically harvested much more timber than it currently does and therefore utilized an

extensive network of roads. These roads were constructed or reconstructed for timber sales, then closed afterward with the expectation they would be needed again within a few years. However, with small volumes of timber now being cut, many of those closed roads will not be needed for many years, if ever. The decision was made to decommission those roads and if or when timber sale access is ever needed again in one of these areas, temporary access will be established. Although decommissioning does not immediately obliterate a road, the work stabilizes and restores the land, giving nature a good head start to erasing all traces of it.

References:

Schaefer, J.F. & Clark, S. (2011) Reinventory of Fish Communities and Fish Habitats in Mississippi National Forests (Final Report).