



# National Forests in North Carolina

## FY 2008 Monitoring and Evaluation Report

Nantahala \* Pisgah \* Uwharrie \* Croatan



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Monitoring Conditions of the Upper Tellico OHV  
System – Nantahala National Forest



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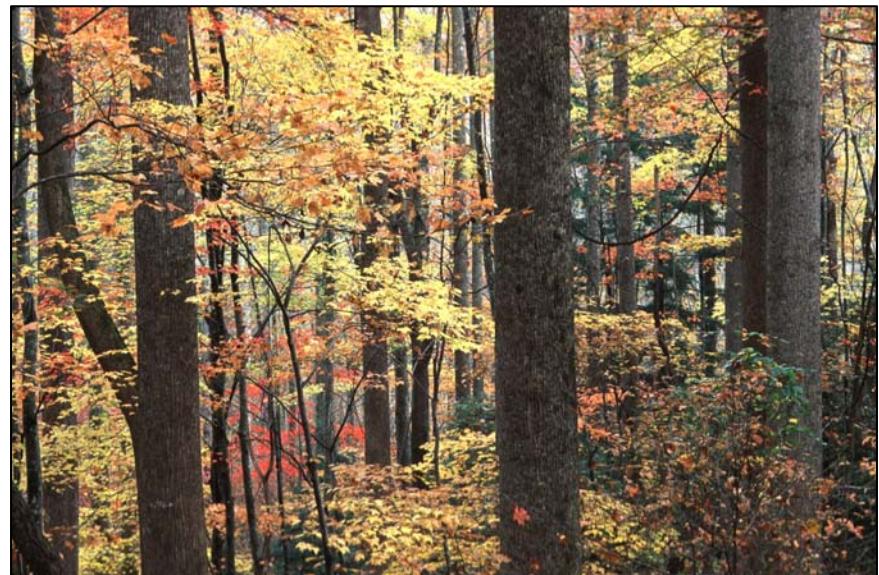
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# **PREFACE**

Forest plan monitoring and evaluation reports are essential elements for maintaining valid and effective Land Management Plans. Nantahala and Pisgah National Forests operate under a plan signed in 1987 and significantly amended (Amendment 5) in 1994. Revision of this plan will begin no earlier than FY 2011. The original plan for the Uwharrie National Forest was signed in 1986. This plan's revision was on hold in FY 2008. A revised Croatan National Forest plan went into effect in FY 2003. The various plans are available online at  
<http://www.cs.unca.edu/nfsnc/nepa/nepa.htm>.

The Annual Monitoring and Evaluation Report for FY 2008 is organized into broad resource topic areas. A summary of the historical context for management of the four Forests is available online at

<http://www.cs.unca.edu/nfsnc/me2003/nfsnchistory.pdf>.



## KEY FINDINGS AND CERTIFICATION

- Condition surveys of the Upper Tellico Off-Highway Vehicle System indicate the need to initiate management actions to reduce accelerated erosion from trails that is contributing to sedimentation in the upper Tellico River and its tributaries.
- The upward trend in timber sale volume did not continue into FY 2008: sale volume was off slightly from FY 2007.
- Creation of early successional habitat through timber regeneration was at its lowest level in 11 years.
- Timber harvests were predominantly through thinning in FY 2008, with the Croatan National Forest contributing significantly to the total through first thinning of planted loblolly pine.
- Habitat suitability assessments were completed across the Uwharrie National Forest for the reintroduction of the endangered Carolina heelsplitter (a freshwater mussel).
- Forest neotropical migratory bird surveys identified 72 species across the Nantahala and Pisgah National Forests, 40 species on the Uwharrie National Forest, and 42 species on the Croatan National Forest. Populations are generally stable or decreasing.
- Interpretive signs were constructed along the National Historic Trail of Tears on the Nantahala National Forest.
- Prescribed fire accomplishment acres were higher than in the previous 16 years.

## Forest Supervisor's Certification

I have evaluated the monitoring results and I have directed that the Action Plan be implemented according to the time frames indicated, unless new information or changed resource conditions warrant otherwise. I have considered funding requirements in the budget necessary to implement these actions.

During FY 2009, the Plan for Nantahala and Pisgah National Forests and the revised Croatan National Forest Plan were sufficient to guide forest management on those Forests. For the Uwharrie National Forest, plan revision was underway until April of 2007, then on hold for the remainder of that year and into 2008. It resumed during FY 2009 but an adverse court ruling put it on hold a second time. It may resume in FY 2010.

Any amendments or revisions to the Forest Plans will be made using the appropriate National Environmental Policy Act (NEPA) procedures.

/s/ Terence J Seyden

8/14/09

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Acting Forest Supervisor

Date

# ***FY 2008 Monitoring Results***

## **SPECIAL REPORT – CONDITIONS OF THE UPPER TELLICO ORR-HIGHWAY VEHICLE SYSTEM**

During FY 2008 extensive condition surveys of the Upper Tellico Off-Highway Vehicle (OHV) System were conducted to establish if the OHV System was a significant source of sediment reaching the upper Tellico River and its tributaries. The North Carolina portion of the Tellico River is classified “Wild Trout Waters.” This classification was a contributing factor that allowed this portion of the river to be eligible and suitable for potential designation as Wild and Scenic. A summary of findings follows:

- 673 sites were identified where sediment was seen leaving the trail system and reaching the stream network;
- Half the drainage control features were non-functional;
- Abundant rainfall, highly erosive soils, and steep topography make the area a poor location for OHV use;
- Deeply entrenched trails limit the effectiveness of drainage control features;
- Maintenance levels have not been sufficient to prevent accelerated erosion from the trails;
- Turbidity levels during storm events exceed those of reference streams ;
- Pebble counts and pool filling indicate the presence of higher amounts of fine sediments than in reference streams;
- Brook trout reproduction is reduced from other brook trout streams.

Following extensive data collection, an environmental assessment (EA) process was initiated and was well underway by the end of FY 2008. The EA will examine a number of possible alternatives for the future management of the Upper Tellico system with the intent of stemming the flow of sediment from the trail system to the stream network in the upper Tellico watershed. A monitoring plan would be in place following implementation of the selected alternative to ensure the desired outcome is achieved. The following images are from the condition surveys.



Above left - sediment-laden runoff from Trail 1; Above right - a rough section of Trail 2; Below left – a stream crosses Trail 10; Below right – sediment from Trail 12.



**Goal or Desired Condition:** A wide variety of recreational opportunities are provided with increased opportunities for non-motorized recreation. Activities, facilities, and programs are accessible to the extent possible.

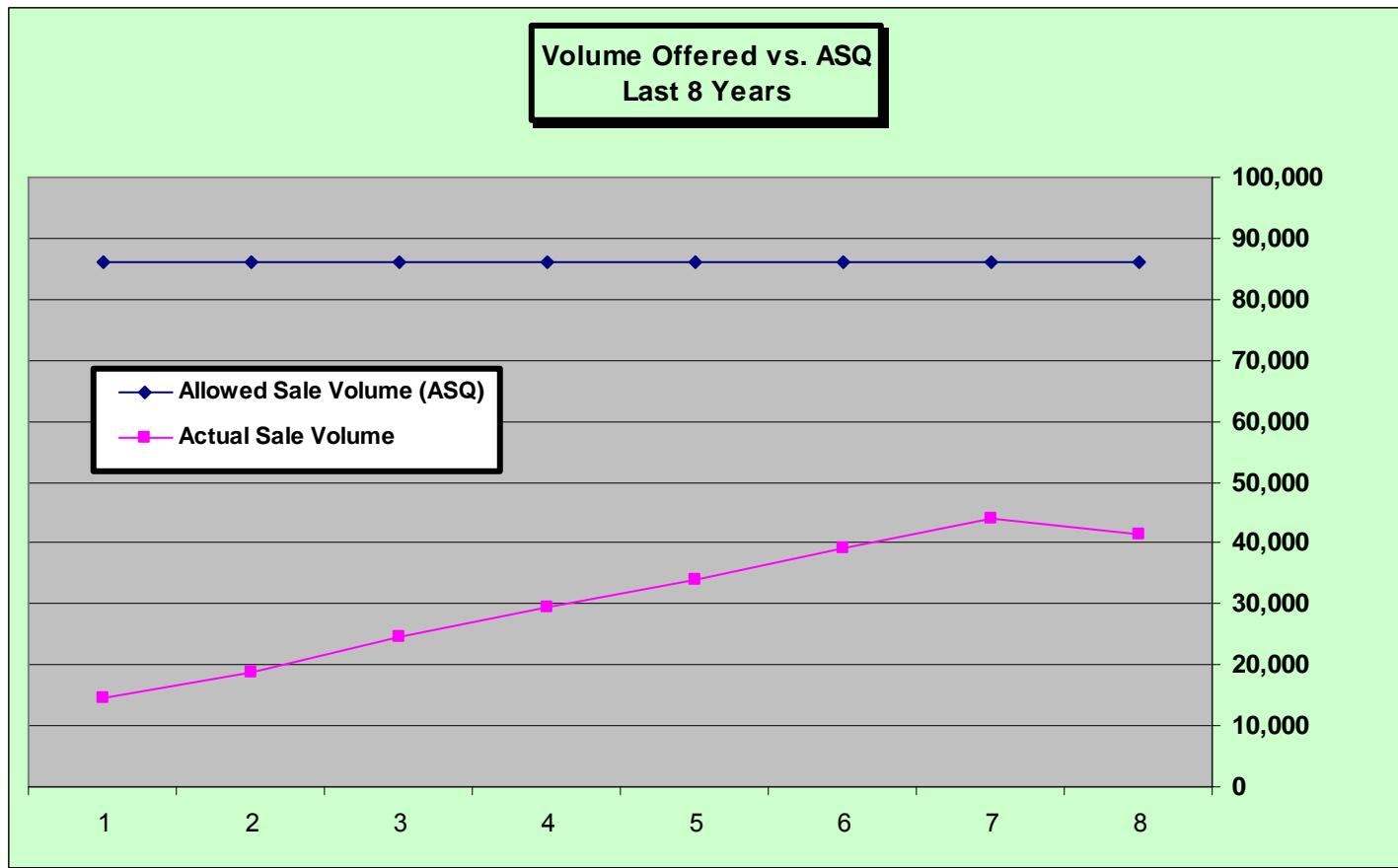
Monitoring Item	Results
To what extent are management activities appropriate for moving areas of the Forest toward the desired conditions for recreation?	<b>No report for FY 2008</b>
To what extent has accessibility improved?	<b>No Report for FY 2008</b>
Are Visual Quality Objectives being met? Is the scenery being maintained or enhanced?	<b>N/P:</b> In FY2008, effects analysis of potential scenery impacts was done for proposed highway construction, communication towers and vegetation management projects across the Nantahala and Pisgah National Forests. Proposals were designed or mitigated to meet all assigned Visual Quality Objectives. These projects occurred in a variety of management areas, some of which were in visually sensitive viewsheds. With specified scenery design features or mitigation, all analyzed proposals maintained or enhanced scenic quality.

**Goal or Desired Condition:** A variety of silvicultural treatments are used to provide a continuous supply of wood products, with emphasis on high quality hardwoods (Nantahala/Pisgah).

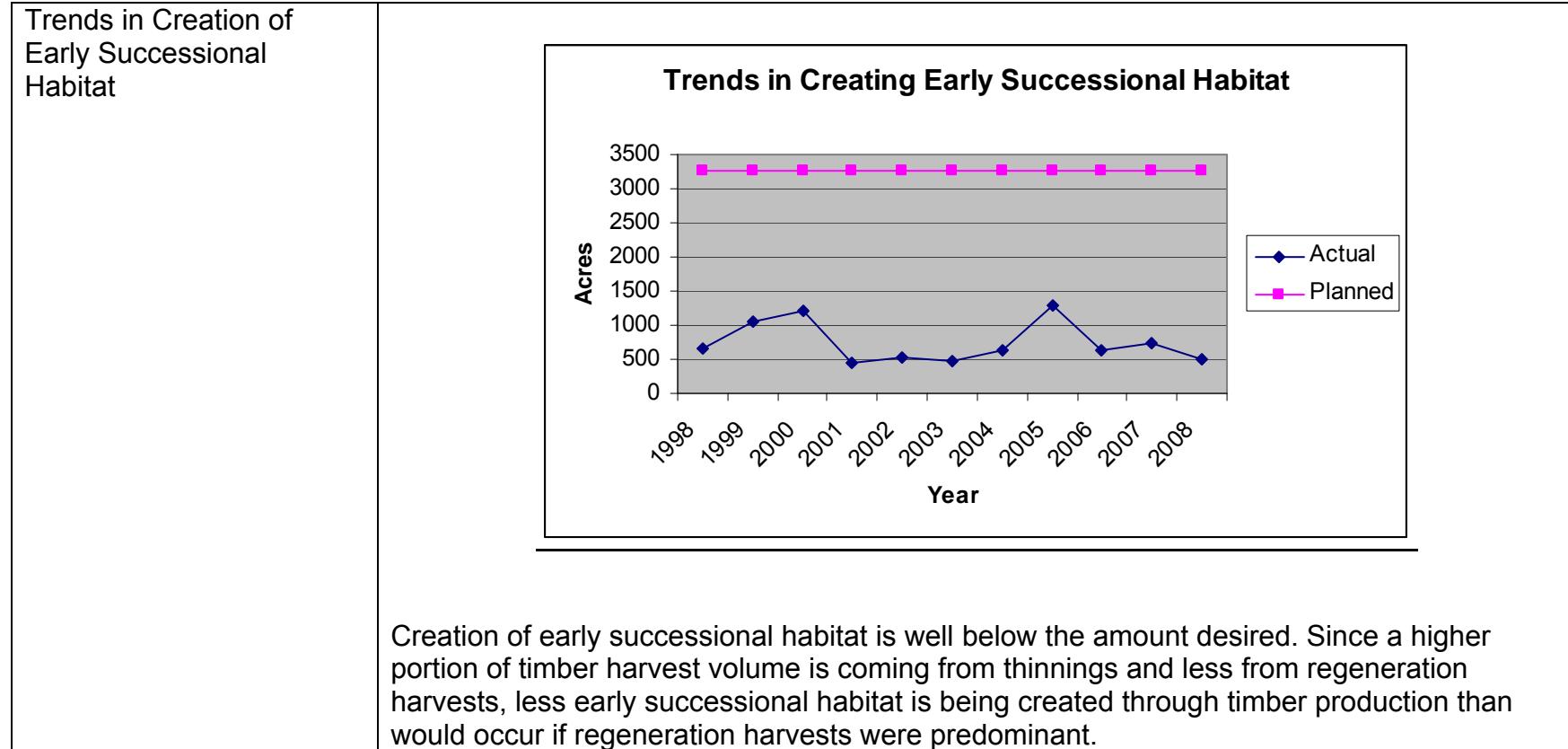
Monitoring Item	Results																					
Southern Pine Beetle Restoration & Prevention FY 2008	Reforestation: Site Prep. for Planting = 43 acres Planting & Nat. Regen. = 122 acres TSI: Release of Planted Seedlings = 0 acres SPB Prevention: Precom. Thinning = 170 acres																					
Timber Stand Improvements (TSI), FY 2008	<b>TOTAL for FY 2008 = 2,087 acres</b> <b>PLANS PROJECTED = 2,487 acres</b>																					
Acres Harvested in FY 2008 by Method, and Plan Projected Harvest	<p style="text-align: center;"><b>ALL NFsNC FORESTS</b></p> <table border="1"> <thead> <tr> <th>Method</th> <th>FY 2008 Harvested Acres</th> <th>Plan Projections</th> </tr> </thead> <tbody> <tr> <td>Even-Aged/ Two-Aged</td> <td>479</td> <td>2,767</td> </tr> <tr> <td>Uneven-Aged</td> <td></td> <td></td> </tr> <tr> <td>Thinning 1,235</td> <td>28</td> <td>500</td> </tr> <tr> <td>Salvage</td> <td></td> <td>-</td> </tr> <tr> <td>Shelterwood Removal</td> <td>41</td> <td>-</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>1,783</b></td> <td><b>3,267</b></td> </tr> </tbody> </table>	Method	FY 2008 Harvested Acres	Plan Projections	Even-Aged/ Two-Aged	479	2,767	Uneven-Aged			Thinning 1,235	28	500	Salvage		-	Shelterwood Removal	41	-	<b>TOTAL</b>	<b>1,783</b>	<b>3,267</b>
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<b>FOREST</b>	<b>VOLUME OFFERED 2008 (CCF)</b>	<b>VOLUME SOLD 2008 (CCF)</b>	<b>VOLUME HARVESTED 2008 (CCF)</b>
CROATAN	10,717	8,068	14,861
UWHARRIE	2,670	2,737	7,820
NANTAHALA/PISGAH	28,048	25,610	16,198
<b>TOTAL</b>	<b>41,435</b>	<b>36,415</b>	<b>38,879</b>

## Timber Sale Volume Trend dropped due to Budget



**Goal or Desired Condition:** Maintain, and where possible, enhance the diversity of plant and animal communities.



Restoring Native Diversity	<p><u>Non-native Invasive Plants:</u> An Environmental Assessment was underway during FY 2008 for treatment of non-native invasive plants on selected areas of the Pisgah and Nantahala National Forest. A Decision Notice and the beginning of project implementation is scheduled for FY 2009.</p>
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**Goal or Desired Condition: Maintain viable populations of existing native wildlife, fish, and plants. Threatened and endangered plant and animal species are protected, managed or recovered consistent with the Endangered Species Act; and sensitive species are conserved.**

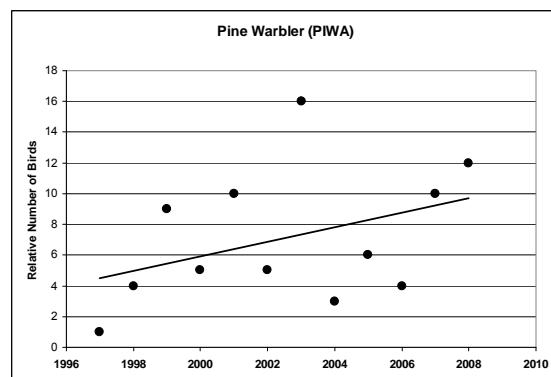
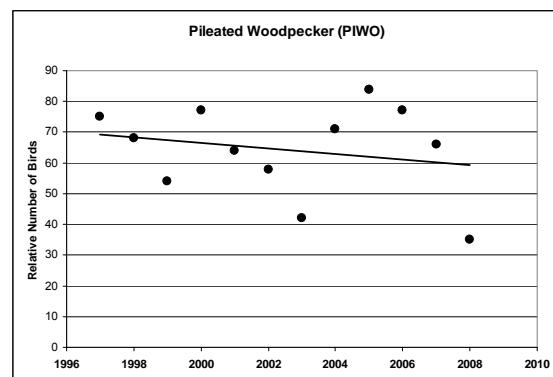
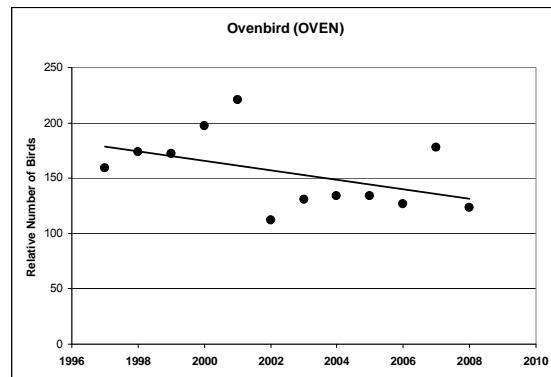
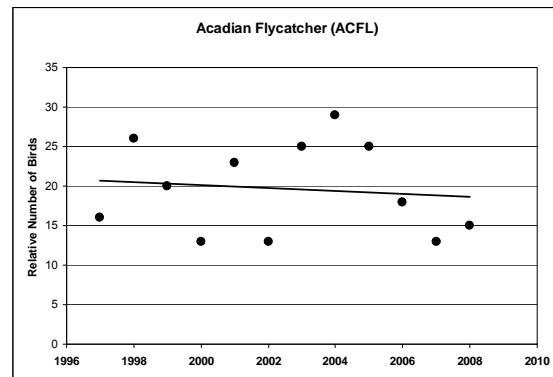
Status of Threatened and Endangered Species	<p>There were 31 Threatened or Endangered species that occur or may occur on the National Forests in North Carolina at the end of FY 2008. Seventeen of the 31 potential species have documented populations within the National Forests in North Carolina.</p> <p><u>Activities in FY 2008:</u></p> <p>Active programs exist on all Forests for the recovery of listed species (e.g. RCW on the Croatan, Schweinitz's sunflower and Carolina heelsplitter on the Uwharrie, Appalachian elktoe, Northern flying squirrel, Mountain golden heather on the N/P). Recovery plans exist for these species and the Forests are vital partners in the successful implementation of these plans.</p> <p>In FY08, habitat suitability assessments were completed across the Uwharrie National Forest for the reintroduction of the endangered Carolina heelsplitter. Suitable habitat and aquatic community structure were found within Barnes Creek, several tributaries, and the Uwharrie River on the Forest. It is estimated that the endangered mussel will be reintroduced to the Forest (or immediately adjacent to it) by the end of FY10.</p> <p><b>N/P:</b> In FY08, freshwater mussel populations were augmented in several streams across</p>
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	the Forests to expand stable species' range, as well as augment declining populations.
Sensitive Species Monitoring	<p>Surveys for the Northern bush katydid (<i>Scudderia septentrionalis</i>) were conducted across the Nantahala and Pisgah National Forests to determine presence and occupied range on the Forest.</p> <p>Peregrine falcon (<i>Falco peregrinus</i>) nesting was monitored at seven cliff sites across the Nantahala and Pisgah National Forests. Seasonal rock-climbing closures were put into effect to protect falcon nesting and fledging.</p> <p>Brook floaters (<i>Alasmiodonta varicosa</i>) were reared in captivity (through cooperative efforts) for range-wide restoration efforts. These efforts include sites on the Grandfather Ranger District (and potentially on the Uwharrie National Forest).</p> <p>Prescribed burning was modified for high-elevation units on the Pisgah Ranger District to protect ground beetles (<i>Trechus sp.</i>) and other rare species preferring spruce-fir and other high elevation habitats.</p> <p>Project-level surveys for sensitive species identified as local endemics, including ground beetles (<i>Trechus sp.</i>), cave spiders (<i>Nesticus sp.</i>), and crayfish (<i>Cambarus reburrus</i>) were conducted for projects in relevant areas; additionally, project-level surveys were conducted for all sensitive terrestrial and aquatic wildlife species where there was a high likelihood of habitat occupancy, per the Chattooga Decision.</p>
Forest Concern Species Monitoring	<p>Woodland salamander populations were monitored across the Appalachian Ranger District of the Pisgah National Forest.</p> <p>Forest-dwelling bat populations were monitored across the Grandfather and Pisgah Ranger Districts of the Pisgah National Forest.</p>

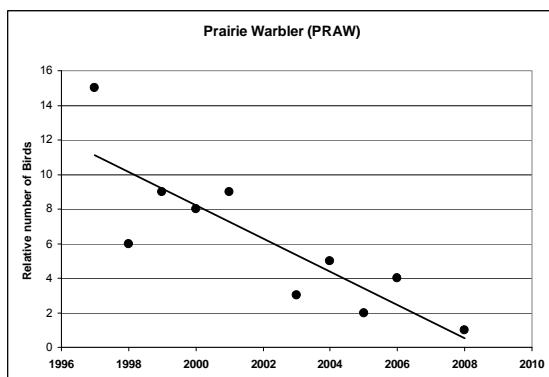
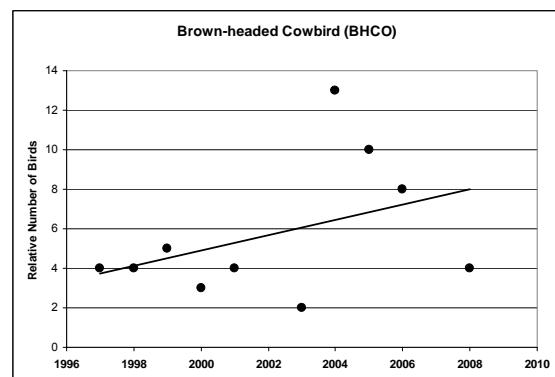
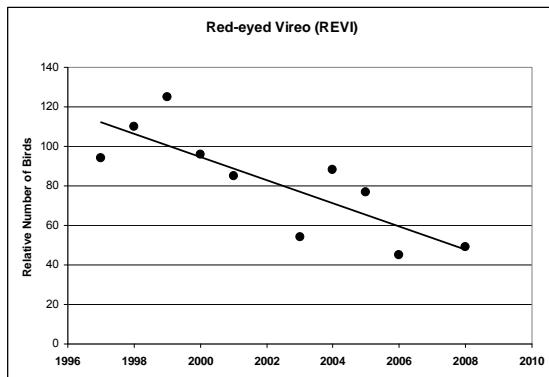
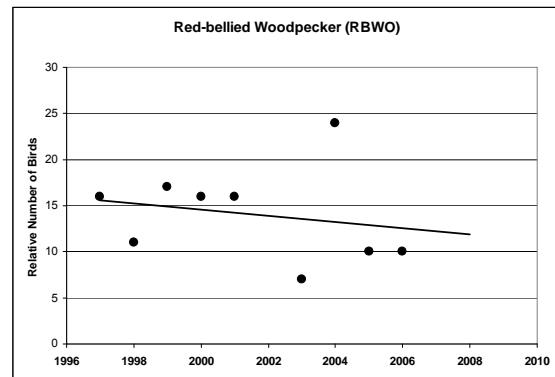
Trends for Management Indicator Species	<p>The tables below estimate population trends for Management Indicator species (MIS) across the Forests, based on habitat and population survey data. Some habitats and species are monitored annually, and others on a less frequent cycle, depending on the particular species and habitat requirements.</p> <p><b>Nantahala and Pisgah National Forests</b></p> <table border="1" data-bbox="650 638 1507 1367"> <thead> <tr> <th data-bbox="650 638 1036 714">Species</th><th data-bbox="1036 638 1507 714">Estimated Population Trend 2008</th></tr> </thead> <tbody> <tr> <td data-bbox="650 714 1036 755">Black bear</td><td data-bbox="1036 714 1507 755">Increasing</td></tr> <tr> <td data-bbox="650 755 1036 796">White tailed deer</td><td data-bbox="1036 755 1507 796">Decreasing</td></tr> <tr> <td data-bbox="650 796 1036 837">Pileated woodpecker</td><td data-bbox="1036 796 1507 837">Static</td></tr> <tr> <td data-bbox="650 837 1036 878">Ovenbird</td><td data-bbox="1036 837 1507 878">Static</td></tr> <tr> <td data-bbox="650 878 1036 918">Rufous-sided towhee</td><td data-bbox="1036 878 1507 918">Decreasing</td></tr> <tr> <td data-bbox="650 918 1036 959">Pine warbler</td><td data-bbox="1036 918 1507 959">Static</td></tr> <tr> <td data-bbox="650 959 1036 1000">Acadian Flycatcher</td><td data-bbox="1036 959 1507 1000">Static</td></tr> <tr> <td data-bbox="650 1000 1036 1041">Ruffed grouse</td><td data-bbox="1036 1000 1507 1041">Static</td></tr> <tr> <td data-bbox="650 1041 1036 1111">Brook, brown and rainbow trout</td><td data-bbox="1036 1041 1507 1111">Static</td></tr> <tr> <td data-bbox="650 1111 1036 1152">Largemouth bass</td><td data-bbox="1036 1111 1507 1152">Static</td></tr> <tr> <td data-bbox="650 1152 1036 1192">Blacknose dace</td><td data-bbox="1036 1152 1507 1192">Static</td></tr> <tr> <td data-bbox="650 1192 1036 1233">Smallmouth bass</td><td data-bbox="1036 1192 1507 1233">Static</td></tr> <tr> <td data-bbox="650 1233 1036 1274">Fraser fir</td><td data-bbox="1036 1233 1507 1274">Static</td></tr> <tr> <td data-bbox="650 1274 1036 1315">Carolina hemlock</td><td data-bbox="1036 1274 1507 1315">Decreasing</td></tr> <tr> <td data-bbox="650 1315 1036 1356">Ginseng</td><td data-bbox="1036 1315 1507 1356">Static</td></tr> <tr> <td data-bbox="650 1356 1036 1396">Ramps</td><td data-bbox="1036 1356 1507 1396">Static</td></tr> </tbody> </table>	Species	Estimated Population Trend 2008	Black bear	Increasing	White tailed deer	Decreasing	Pileated woodpecker	Static	Ovenbird	Static	Rufous-sided towhee	Decreasing	Pine warbler	Static	Acadian Flycatcher	Static	Ruffed grouse	Static	Brook, brown and rainbow trout	Static	Largemouth bass	Static	Blacknose dace	Static	Smallmouth bass	Static	Fraser fir	Static	Carolina hemlock	Decreasing	Ginseng	Static	Ramps	Static
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Regional Landbird Survey	<p>Forest neotropical migratory bird surveys were accomplished through 10-minute point counts on 353 established plots across the National Forests in North Carolina (114 points on the Nantahala NF, 144 points on the Pisgah NF, 55 points on the Uwharrie NF, and 40 points on the Croatan NF) during the spring of 2008.</p> <p>Seventy-two species were detected across the mountain forests (Nantahala and Pisgah). Forty species were detected on Uwharrie National Forest (piedmont), and forty-two species were detected on the Croatan National Forest (coast).</p>																		

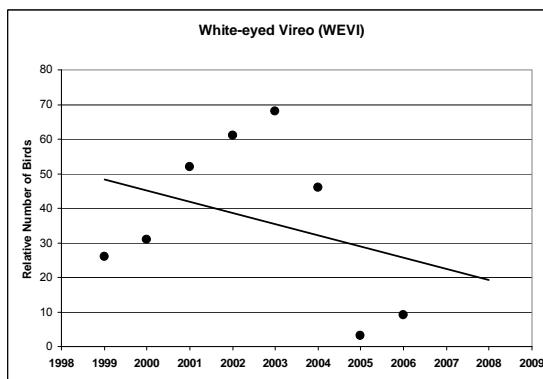
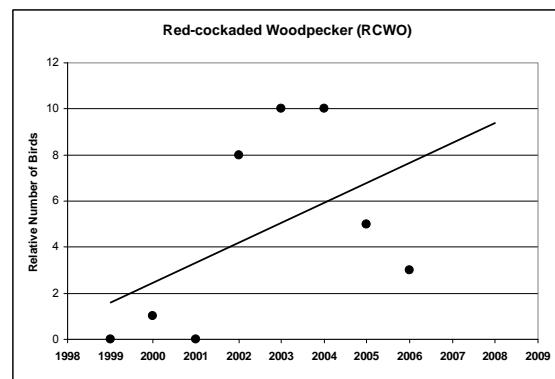
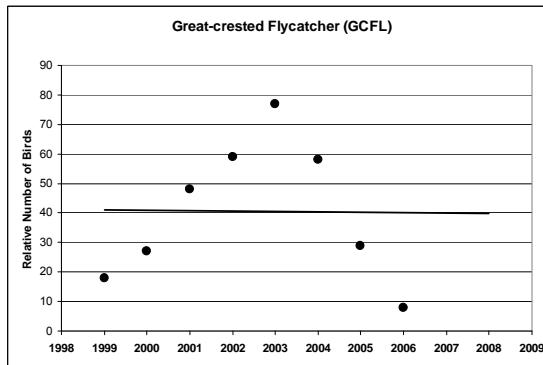
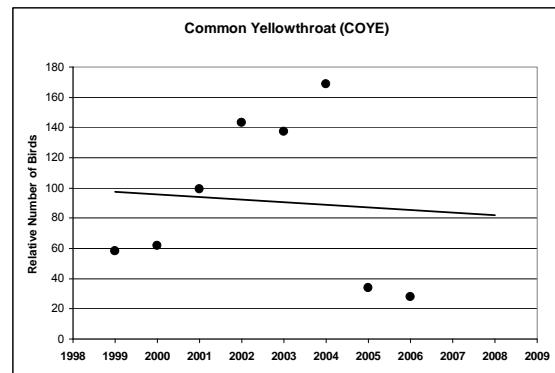
The figures below indicate trends of several bird species across the Nantahala and Pisgah National Forests (these species are also MIS). Most bird species trends are static to increasing in the habitats monitored the mountains, while several are showing a declining trend. It is recommended that this monitoring continue in the mountain forests, with an emphasis on identifying limiting factors for declining species.



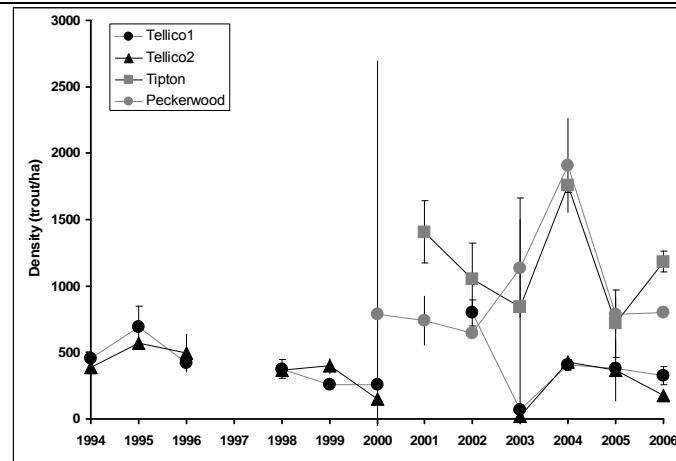
The figures below indicate trends of several birds across the Uwharrie National Forest. Most bird species trends are static to slightly declining. The Uwharrie National Forest lies within a landscape of highly-fragmented ownership, with much of the private land in agriculture or rural/urban development. This may be affecting forest bird populations. It is recommended that this monitoring continue on the Uwharrie National Forest, with an emphasis on identifying limiting factors for declining species.



The figures below indicate trends of several bird species across the Croatan National Forest, including the endangered red-cockaded woodpecker. Most bird species trends are static on the Croatan National Forest. It is recommended that this monitoring continue on the Croatan National Forest, with an emphasis on improving population trends for native forest species.



Bat Monitoring	<p>Forest bat monitoring was accomplished through mist netting of bat travel corridors and foraging areas at four sites on the Pisgah National Forest during the summer of 2008. These included the Mills River, Bent Creek, upper Davidson River, and Cradle of Forestry areas. Anabat recordings were also used to record species not captured during mist net surveys. Over forty bats were captured, representing six species:</p> <ol style="list-style-type: none"> <li>1. little brown bat (<i>Myotis lucifugus</i>),</li> <li>2. Eastern red bat (<i>Lasiusurus borealis</i>),</li> <li>3. big brown bat (<i>Eptesicus fuscus</i> ),</li> <li>4. silver-haired Bat (<i>Lasionycteris noctivagans</i>),</li> <li>5. pipistrelle (<i>Pipistrellus subflavus</i> ), and</li> <li>6. Northern long-eared bat (<i>Myotis septentrionalis</i>).</li> </ol> <p>Additionally, a new occurrence of the Indiana bat (<i>Myotis sodalis</i>) was recorded in Cherokee County (Nantahala National Forest) FY2008.</p>
Coldwater stream fish populations trends	<p><b>Long-term trout population monitoring continued in FY 2008.</b> Monitoring on approximately 15 miles of streams within Nantahala and Pisgah National Forests continues to support earlier findings that while individual populations exhibit high annual variability in age class structure and biomass, <b>overall trends in brook, brown, and rainbow trout, and associated nongame species populations across the Nantahala and Pisgah have remained stable during the last 10 years.</b></p> <p>Positive efforts are underway to improve trout habitat and populations within the Tellico OHV area. Trout population monitoring continues in this area.</p>



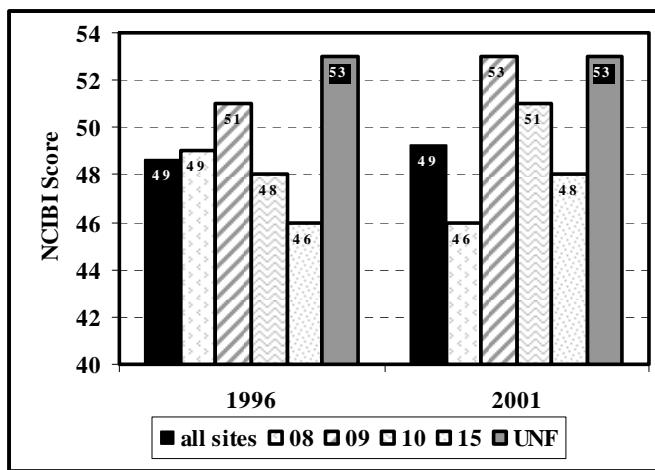
#### Reservoir Fish Communities

**Long-term monitoring of reservoir fish communities continued on approximately 200 acres of mountain reservoirs in FY 2008.** Reservoirs included in this monitoring are Hiwassee Lake, Fontana Lake, Santeetlah Lake, and Chatuge Lake on the Nantahala National Forest and Badin Lake on the Uwharrie National Forest. Based on the age of the reservoirs and results of long-term population monitoring efforts, it is thought that habitat enhancement is one key to maintaining reservoir fish population stability on both the Nantahala and Uwharrie National Forests. To this effect, approximately 150 acres of reservoir shoreline habitat were improved on the Nantahala National Forest during FY05. Additionally, approximately 300 acres of mid-depth and deepwater habitats were enhanced across the Nantahala National Forest. As with coldwater stream fish populations, reservoir fish communities exhibit high annual variability in age class structure and biomass, although **overall trends in reservoir fish species populations have remained stable during the last 10 years.**



Warmwater stream fish populations trends

**Fish communities across the Uwharrie National Forest continued to be monitored during FY2008.** Index of biotic integrity scores for sites across the Yadkin Basin show that streams across the Uwharrie National Forest are generally in better condition than across the rest of the basin.



Aquatic rare species and habitat	<b>Approximately 100 miles of stream across the National Forests in North Carolina were evaluated for rare aquatic species presence and suitable habitat during FY 2008.</b> These inventories were done to maintain compliance with environmental laws and regulations during the NEPA process for forest management activities, as well as to further the science of individual species.
Aquatic invertebrate populations	<b>Aquatic invertebrate populations were monitored across the Nantahala and Pisgah National Forests.</b> As with fish populations, aquatic invertebrate populations tend to exhibit high annual variability in community structure and biomass; however, <b>overall trends in aquatic invertebrate populations across the Nantahala and Pisgah National Forests have remained stable.</b>
Freshwater mussel populations	<b>Freshwater mussel populations continue to be monitored in the Little Tennessee and Nolichucky Rivers</b> through cooperative efforts with the U.S. Fish and Wildlife Service and North Carolina Wildlife Resources Commission to implement the recovery plan for the endangered Appalachian Elktoe ( <i>Alasmidonta raveneliana</i> ). In addition, aquatic habitats suitable for all freshwater mussels continue to be inventoried to improve the reliability of mapped species' ranges and distributions across the National Forests in North Carolina. Despite regional declines in some species' populations, no declines have been documented on the Forests. In fact, <b>the known range and distribution of freshwater mussels on the Forests continues to expand</b> as inventories of suitable habitat are completed.
Native Species Restoration (brook trout)	<b>In FY08, two populations of native brook trout were restored in the Nantahala and Pisgah National Forests.</b> These populations are the first to be attempted, and preliminary indications are that the transplants were successful. Monitoring will continue into FY10. <b>Additionally, disjunct brook trout populations were reconnected on two streams after stream crossing replacement provided for upstream movement of the species.</b>

**Goal or Desired Condition: Attributes and resources of special interest areas including wilderness, research natural areas, and areas registered by the North Carolina Natural Heritage Program are maintained.**

Monitoring Item	Results
Attributes and Resources of Wilderness	The National Forests in North Carolina have continued to make progress on the Chief of the Forest Service's 10-year Wilderness Stewardship Challenge. The goal is to bring all Wildernesses up to a high standard of management by 2014. The Forest has completed human-impact condition inventories on most Wildernesses and is developing a prototype Wildland Fire Use Plan for Linville Gorge Wilderness. The Middle Prong Wilderness human-impact condition inventory will be completed in 2009. The Forest is also developing a Wilderness Education Plan for Birkhead Mountains Wilderness that can be used as a prototype. An inventory of invasive species was completed for Shining Rock Wilderness in 2008 to serve as a model for future invasive species inventories.

**General direction: Heritage resources, which are listed on or eligible for the national register of historic places or the national register of historic landmarks, are protected. Suitable sites are developed and/or interpreted for public use and enjoyment.**

**General direction: Cultural resources, historic properties or archeological sites, which are listed on or eligible for the National Register of Historic Places (NRHP) or are designated National Historic Landmarks, are protected. Suitable sites are developed and/or interpreted for public use and enjoyment.**

Monitoring Item	Results			
Cultural Resources Identified in Relation to Acres Surveyed		Sites & Properties Identified		Acres Surveyed
	FY 2008	226		4,364
	ALL-TIME TOTAL	6,015		189,643
Sites Monitored				
Sites Monitored	Forest	Number of Sites	Sites Stable	Sites Impacted
	Nantahala	6	4	2
	Pisgah	12	8	4
	Croatan	4	3	1
	Uwharrie	3	0	3
	<i>Total:</i>	25	15	10
Tribal Relations Activities	<i>Percent:</i>	100%	60%	40%
	The Forest continued to work in partnership with other agencies, the Eastern Band of Cherokee Indians, local communities and universities on the National Historic Trail of Tears. Relationships with the Federally recognized Catawba Indian Nation expanded as part of the Uwharrie Forest Plan Revision.			
Public Interpretation	Interpretive signs were constructed along the National Historic Trail of Tears on the Cheoah, Nantahala and Tusquitee Ranger Districts.			

Monitoring Item	Results																								
<p>Site Protection</p>  <p>Site preserved by project avoidance</p>	<p>Twenty-five (25) cultural resources, including prehistoric archeological sites and 4 historic cemeteries, regarded as susceptible to vandalism or looting, potential impact from project implementation, visitor use and/or natural deterioration were visited and formally assessed and documented. One site on the Croatan National Forest was re-evaluated as not eligible for listing in the NRHP, the older site data was incorrect.</p> <p><b>Monitored Sites:</b></p> <table border="1" data-bbox="783 507 2029 736"> <thead> <tr> <th data-bbox="783 507 1030 540">Forest</th><th data-bbox="1030 507 1353 540">Prehistoric Sites</th><th data-bbox="1353 507 1655 540">Historic Sites</th><th data-bbox="1655 507 2029 540">Total Sites Monitored</th></tr> </thead> <tbody> <tr> <td data-bbox="783 540 1030 572">Nantahala</td><td data-bbox="1030 540 1353 572">4</td><td data-bbox="1353 540 1655 572">2</td><td data-bbox="1655 540 2029 572">6</td></tr> <tr> <td data-bbox="783 572 1030 605">Pisgah</td><td data-bbox="1030 572 1353 605">10</td><td data-bbox="1353 572 1655 605">2</td><td data-bbox="1655 572 2029 605"></td></tr> <tr> <td data-bbox="783 605 1030 638">Croatan</td><td data-bbox="1030 605 1353 638">4</td><td data-bbox="1353 605 1655 638">0</td><td data-bbox="1655 605 2029 638"></td></tr> <tr> <td data-bbox="783 638 1030 670">Uwharrie</td><td data-bbox="1030 638 1353 670">3</td><td data-bbox="1353 638 1655 670">0</td><td data-bbox="1655 638 2029 670">4</td></tr> <tr> <td data-bbox="783 670 1030 736"><b>Total:</b></td><td data-bbox="1030 670 1353 736"><b>21</b></td><td data-bbox="1353 670 1655 736"><b>4</b></td><td data-bbox="1655 670 2029 736"><b>25</b></td></tr> </tbody></table> <p>Most Forest management projects such as recreation developments and timber harvest, etc., have not adversely impacted heritage resources. Ten sites in close proximity to and requiring avoidance by proposed timber management activities were monitored and remain unaffected and protected.</p> <p>Ten of the Forest-wide monitored sites (40%) had adverse impacts. Off-highway vehicle use (OHV) and associated camping on the Tusquitee Ranger District has adversely impacted 1 prehistoric site and exposed 2 previously unknown sites. Two sites on the Croatan National Forest are being affected by erosion along fire lines. Plans for stabilization also need to be developed and implemented for 2 significant sites eroding along river banks on the Croatan.</p>	Forest	Prehistoric Sites	Historic Sites	Total Sites Monitored	Nantahala	4	2	6	Pisgah	10	2		Croatan	4	0		Uwharrie	3	0	4	<b>Total:</b>	<b>21</b>	<b>4</b>	<b>25</b>
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<p>Site Protection [cont'.]</p>	<p>Dispersed recreational camping activities have adversely impacted a site on the Pisgah Ranger District and a site on the Appalachian Ranger District. Some permitted group camping use is affecting sites on the Grandfather Ranger District. These areas need to be closed to camping and stabilized or the sites need to be completely evaluated and data recovered. Unauthorized road re-construction impacted a significant prehistoric site on the Appalachian Ranger District. This impact was mitigated in 2008. Project</p>																								

Monitoring Item	Results
	<p>implementation does need to be better coordinated. A plan is currently being developed to stop erosion of a site on the Appalachian Ranger District. The three monitored sites on the Uwharrie are being impacted by trail use and unauthorized artifact collection. While trail relocation is being planned, the existing damage must be mitigated and law enforcement activities need to increase along with education of users. There has also been recent looting at 1 of the monitored sites on the Pisgah Ranger District.</p>
<p>Site exposed by dispersed camping use</p> 	<p>The Forest continues to see an increase in requests for metal detector use and needs to develop a Forest-wide policy on such use. Maintenance continued at the NRHP listed Thornburg Property on the Uwharrie Ranger District and Cradle of Forestry on the Pisgah Ranger District.</p> <p>All impacted sites need to be evaluated and stabilized. There are currently several additional incomplete mitigation projects at damaged sites on the Forest due to a lack of funds.</p>

## Other Monitoring

Monitoring Item	Results																				
Land Adjustment in Support of LRMP Goals	<p>Acres Conveyed by Exchange/Small Tracts or Admin Sale: Nantahala NF = 4.96</p> <p>Acres Acquired by Purchase, Donation, Exchange: Pisgah = 187 Croatan = 0 Nantahala NF = 16.97 Uwharrie = 0</p> <p>Pisgah = 0 Croatan = 0 Uwharrie NF = 0</p>																				
Special Uses Compatible With LRMP Goals	<p>Special use authorizations allow for the use of National Forest System lands for a wide variety of purposes. Some authorize facilities and services necessary for public health, welfare, and safety while others authorize uses of a private nature.</p> <p><u>Number of Special Use Permits by Forest</u></p> <table border="1" data-bbox="853 866 1579 1062"> <thead> <tr> <th data-bbox="853 866 1030 910">Forest</th><th data-bbox="1030 866 1208 910">Recreation</th><th data-bbox="1208 866 1385 910">Lands</th><th data-bbox="1385 866 1579 910">Total</th></tr> </thead> <tbody> <tr> <td data-bbox="853 910 1030 954">Nantahala 125</td><td data-bbox="1030 910 1208 954"></td><td data-bbox="1208 910 1385 954">522</td><td data-bbox="1385 910 1579 954">719</td></tr> <tr> <td data-bbox="853 954 1030 998">Pisgah 16</td><td data-bbox="1030 954 1208 998"></td><td data-bbox="1208 954 1385 998">328</td><td data-bbox="1385 954 1579 998">534</td></tr> <tr> <td data-bbox="853 998 1030 1042">Croatan 24</td><td data-bbox="1030 998 1208 1042"></td><td data-bbox="1208 998 1385 1042">83</td><td data-bbox="1385 998 1579 1042">107</td></tr> <tr> <td data-bbox="853 1042 1030 1073">Uwharrie 36</td><td data-bbox="1030 1042 1208 1073"></td><td data-bbox="1208 1042 1385 1073">102</td><td data-bbox="1385 1042 1579 1073">134</td></tr> </tbody> </table>	Forest	Recreation	Lands	Total	Nantahala 125		522	719	Pisgah 16		328	534	Croatan 24		83	107	Uwharrie 36		102	134
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Special Uses Compatible With LRMP Goals [cont.]	<p>Of these permits state-wide, 1,035 are for land-based uses such as road easements and water systems, and 361 permits are for recreation activities such as outfitting, guiding, and whitewater rafting. There are a total of 1,396 permits state-wide.</p> <p>Key projects included:</p> <ul style="list-style-type: none"> <li>- 32 NC Department of Transportation Projects for the improvement of existing public roads.</li> <li>- Six Federal Highway projects for major multi-lane highways- Havelock Bypass and US 17 – Croatan; Corridor K and NC 143 – Cheoah; NC 215 – Pisgah; and</li> </ul>																				

Monitoring Item	Results
	<p>NC 24/27 – Uwharrie.</p> <ul style="list-style-type: none"> <li>- Relicensing of three hydroelectric projects involving six reservoirs.</li> </ul> <p>Program emphasis will continue to be the monitoring of existing uses to ensure they are operated and maintained with minimal impact on the land. New applications are managed to ensure they are consistent with the Forest Land and Resource Management Plans and Forest Service Regulations. Cost Recovery regulations have been implemented that allow the Forest Service to assess fees for processing applications, amendments and transfers of permits. Permit fees are being retained for permits authorized under the Federal Recreation Enhancement Act. In 2008 \$453,943 in fees were collected and are being utilized to enhance recreation facilities and trails used by permittees.</p>

## Fire Management

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	1998	26,352	22,734	3,618			
	1997	26,092	22,190	2,183	1,154		
	1996	15,964	13,900	1,231	401		
	1995	12,881	9,279	586	879		
	1994	13,027	7,940	2,931	648		
	1993	11,399.50	7,057	2,986.50	1,356		
	1992	7,944	4,862	2,202	725	155	

## ***FY 2009 Action Plan***

- 1) Emphasize creation of early successional habitat on the Nantahala and Pisgah.**
- 2) Complete EA and decision for Nantahala/Pisgah non-native invasive plant treatments.**
- 3) Complete EA and decision for future management of the Upper Tellico OHV System.**

### **LIST OF PREPARERS**

Ruth Berner – Forest Planner – M&E Report Coordinator

John Blanton – Silviculturist

Sheryl Bryan – Wildlife and Fisheries

Rodney Snedeker – Archeologist

Ray Johns – Special Uses/Lands

Diane Bolt –Fire Planner

Dale Remington – Timber Sale Forester

Steve Hendricks – Landscape Architect

Erik Crews – Landscape Architect.



