

**FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION  
WILD TURKEY PERMIT PROGRAM  
2006-2007 ANNUAL REPORT**

Abstract: This report documents activities of the Florida Fish and Wildlife Conservation Commission's (FWC) Wild Turkey Management Program (WTMP) and associated use of Wild Turkey Permit Funds during fiscal year 2006-2007. Permit fund revenues and expenditures totaled \$517,545 and \$285,266.75, respectively. Program activities encompassed management projects, turkey restoration, data analysis, technical assistance, and research and development. Funding for 31 management projects on 24 public wildlife management areas (WMAs) was cost-shared with the Florida Chapter of the National Wild Turkey Federation (FCNWTF). Data management functions included analysis of Special-Opportunity Turkey Hunt mail surveys from 1998 through 2006. The overall results of this analysis indicate that this hunting program is achieving its stated goals. Wild turkey monitoring of recently restored populations were continued in Holmes County and Guana River WMA. A research project was initiated on Three Lakes WMA to evaluate nesting and brood rearing of wild turkeys associated with the Upland Ecosystem Restoration Program, a landscape-scale habitat management effort designed to improve upland "native range" for numerous wildlife species. Additionally, technical assistance was provided to various organizations, private citizens, the media, and agency personnel, including site visits to 8 WMAs.

**FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION  
WILD TURKEY PERMIT PROGRAM  
2006-2007 ANNUAL REPORT**

Public interest in wild turkey management and hunting continues to be strong in the State of Florida. Particular interest is often given to the Osceola subspecies that is endemic to peninsular Florida. Because the wild turkey occupies a wide variety of habitat on private and public lands in all 67 counties of Florida, a comprehensive program, involving management, turkey restoration, technical assistance, data analysis, and research, is required. The FWC's WTMP coordinates these activities with other FWC programs and personnel, other agencies, conservation groups, and the general public. Revenues received primarily from the sale of turkey permits are used to accomplish this work.

Florida statutes, that became effective on June 1, 1986, require residents hunting wild turkeys in Florida to purchase and possess a \$5 turkey permit, or other license that includes this permit fee. Beginning July 1, 2003, non-resident turkey hunters were required to possess a \$100 non-resident turkey permit. During the 2007 Legislative Session, the Florida Legislature appropriated additional budget for wild turkey management based on increased revenues from the sale of non-resident turkey hunting permits. Plans are being developed with regard to how best to use these funds. The focus will be on management aspects with consideration for partnering and cost-sharing opportunities with other agencies or organizations. All funds generated from turkey permits, and associated licenses that provide this hunting privilege, are to expand ongoing wild turkey efforts in the state without detracting from other fish and wildlife programs.

Pursuant to statutory requirements, this report documents the revenues and expenditures associated with the turkey permit fund for fiscal year 2006-2007. Activities conducted by the WTMP through the use of these funds are summarized.

**TURKEY PERMIT REVENUES AND PROGRAM EXPENDITURES**

The Florida Wild Turkey Stamp Act requires that generated revenues be expended for wild turkey research and management, with a maximum of 5% of gross revenues to be expended for administrative costs. During fiscal year 2006-2007, 27,353 resident turkey permits (\$5 each) and 2,335 non-resident turkey permits (\$100 each) were sold. The revenues from these permit sales, plus those derived from the sale of sportsman's licenses, totaled \$517,545. Total fiscal year expenditures were \$285,266.75. Expenditures included \$135,360.10 for salaries and benefits, and \$149,906.65 for management and research. In addition to wild turkey permit funds, \$51,340 in donated funds were received from the FCNWTF, a conservation organization dedicated to promoting wild turkey management, research, habitat protection, and hunting opportunities.

**PROGRAM ACTIVITIES**

The WTMP is charged with coordinating management and research activities across the state and providing a statewide approach to conservation and management of Florida's wild turkey populations. The new goal, developed as part of the WTMP's

new comprehensive management plan, is: “Ensure healthy and sustainable wild turkey populations throughout the state while providing/promoting compatible uses of the resource.” Such a broad program requires involvement of WTMP personnel in numerous activities. These activities are generally encompassed within five categories: management projects, turkey restoration, data analysis, technical assistance, and project development and research.

### **Management Projects**

With continuing changes in quality and quantity of wild turkey habitat in Florida, management efforts continue to be vital to the WTMP's objective of maintaining turkey distributions across the state. Management activities funded by the WTMP have focused on the state's 5.5 million-acre WMA system because of the management opportunities they present and their associated funding needs. Management activities, such as mowing, prescribed burning, planting, and the creation of wildlife openings, have enhanced habitat on these areas for turkeys and other wildlife species.

During this past fiscal year, funds totaling \$136,087 were made available for 31 management projects on 24 WMAs (Table 1). Much of this management work has been accomplished through a cost-share program with the FCNWTF. In this regard, the FCNWTF donated \$46,340 to cost-share these WMA activities. The WTMP provided \$89,747 of turkey permit funds as the FWC's cost-share match. In many cases, FWC equipment, personnel, and/or other funds were also provided for these WMA projects. Moreover, volunteers from the FCNWTF assisted FWC personnel with project implementation on a number of WMAs. Thus, these projects generally provide substantial benefits for wild turkeys and other wildlife resources at a considerable cost savings relative to their overall value. Minor funding or project modifications were made in some cases to accommodate evolving circumstances (e.g., drought conditions altering prescribed burning projects).

### **Wild Turkey Restoration**

Florida essentially completed its turkey restoration efforts in 1970; however, a couple of areas have been identified from time to time where “maintenance” restoration efforts have been warranted. In this regard a low or absent turkey population was documented in Holmes County in 1997. As a result, the entire county was closed to all turkey hunting, and the stocking of 121 turkeys at eight release sites took place over a two-year period beginning in 1998. Holmes County continues to be monitored for evidence of turkey population growth and expansion using annual bait-station surveys. No turkeys or turkey sign were observed at any of 29 bait stations in 1997, prior to stocking. However, in 2000, the annual bait-station surveys were resumed (conducted in September of each year) to help monitor the turkey population in Holmes County. Bait-station use by turkeys at the 28 established stations (1 station was discontinued due to a landowner change) increased from 3 visitations in 2000 to 15 bait-station visits in 2006. Another bait-station survey is planned for fall 2007.

As a result of the documented increase and expansion of the turkey population, a 3-day spring turkey season (1 bird bag limit) was initiated in 2006. All

indications were that the 2006 and 2007 spring turkey hunts were quite successful and a 16-day spring turkey season has now been proposed for 2009.

The 10,000-acre Guana River WMA in northeastern Florida historically supported turkeys, but indiscriminant hunting by individuals apparently disgruntled with the State's acquisition of this area, and habitat degradation due to lack of prescribed fire, are believed to have resulted in their demise. Improved habitat management since that time restored the wild turkey habitat values on this area. Due to the area's isolation from other wild turkey populations as a result of natural and man-made barriers (i.e., urban development), the chance for natural repopulation was low. Consequently, in December 2002 FWC biologists and volunteers from the FCNWTF trapped 35 wild turkeys (15 males and 20 females) from nearby private lands and released them on Guana River WMA. Camera surveys and routine observations by FWC personnel, and other reliable sources, indicate successful reproduction and population increase. As a result, a limited quota hunt has been proposed for the 2009 spring turkey season. Monitoring of this turkey population will continue to ensure its well-being, particularly after reestablishment of limited turkey hunting.

A turkey restoration project was initiated in 2000 for the Everglades National Park at the request of the U.S. Park Service and the FCNWTF. The original release of 29 turkeys (7 males and 22 females) resulted in documented reproduction, but monitoring by the U.S. Park Service suggested that while these turkeys persisted, they remained at low levels. A supplemental stocking was conducted in January 2006 which involved the release of 31 turkeys (11 males and 20 females). A Memorandum of Agreement between the FWC and the U.S. Park Service was created in an effort to improve the monitoring of these recently released birds by the Park Service. Preliminary results have documented successful reproduction for the past 2 springs. Monitoring will continue through the summer of 2009.

### **Data Collection, Management, and Analysis**

One role of the WTMP is to conduct an annual mail survey of spring turkey hunters. Through this process a sample of eligible turkey hunters is surveyed to generate estimates of turkey harvest, hunter effort, and hunter satisfaction. Annual spring turkey season harvest estimates are provided from 1988 through 2006 (Table 2). Harvest data are also collected and maintained for WMAs that operate check stations. These data are used to determine area-specific hunter success rate. Harvest data and hunter success rates can, in some instances, be useful in evaluating trends as an indicator of the health of an area's wild turkey population and/or the quality of its turkey hunting opportunities.

Additionally, the WTMP, with primary assistance from the FWC's Fish and Wildlife Research Institute (FWRI), conducted a summary analysis of the annual surveys of hunters participating in Special-Opportunity Turkey Hunts. These hunts were created in 1997 to provide quality hunting opportunities and increase interest in hunting in Florida, particularly on public land. A review of the 1998-2006 hunt data and survey results was conducted in 2006 to investigate elements affecting application rates, current trends in and determinants of hunter satisfaction, and the

relationship between hunter success and level of satisfaction. Taken as a whole, the goals established for the SOTH program were achieved during these first 10 years. The harvest index for this period was 8.7 hunter-days per turkey harvested and the harvest was comprised of greater than 89% adult gobblers. High levels of hunter satisfaction were also obtained, with better than 90% of hunt participants being satisfied or very satisfied with their SOTH experience. Hunter success rates for the 2007 SOTH are presented in Table 3.

### **Technical Assistance**

The WTMP, as well as other FWC personnel, is often called upon to provide information to internal personnel, various organizations, private citizens, and the media. Such assistance covers a wide range of topics including questions on wild turkey management, survey techniques, hunting information and opportunities, data collection, and research issues.

Agency Assistance -- Assistance is frequently requested from FWC personnel concerning turkey population surveys, establishment of turkey hunting or hunter quotas on WMAs, and funding assistance for management projects (discussed above).

During the course of the 2006-2007 activities, the WTMP visited 8 WMAs to provide input on wild turkey management or participate in turkey survey efforts. The WTMP also visited 4 areas slated to become WMAs in the near future (i.e., Hatchet Creek, Four Creeks, Thomas Creek, and Belmore Forest) and provided comments for rule-development consideration with respect to potential turkey hunting opportunities. The WTMP continued to work cooperatively with the Northwest Florida Water Management District to maintain wildlife openings on the Choctawhatchee River WMA in an effort to provide positive public relations values and benefits to the recently restored turkey population in Holmes County. The WTMP also assisted the U.S. Fish and Wildlife Service on their development of the Lake Woodruff National Wildlife Refuge Comprehensive Conservation Plan.

Public Assistance -- Numerous requests are received from the public for information on turkey hunting and management. Often such requests are adequately addressed by phone, e-mail, or regular mail service in terms of distributing appropriate information. As necessary, public assistance requests are also accommodated through personal contact and on-site visits. This fiscal year, WTMP personnel made 1 on-site visit to a private landowner (Gilchrist Club) to discuss turkey hunting and management opportunities. Information was also disseminated to the public through various news releases and contact with magazine and newspaper reporters.

The WTMP participated in a number of public interaction forums including giving presentations to: participants at a deer and wild turkey management workshop hosted by the University of Florida at Arcadia, school children at the Crystal River Preserve, the Naples Chapter of the Audubon Society, and the Bonifay Kiwanis Club. The WTMP also gave a presentation on the Holmes County turkey restoration project at an FWC Field Days event.

The WTMP, as well as other FWC entities, works closely with the National Wild Turkey Federation (NWTF) throughout the year. This relationship was emphasized at the February FWC Commissioner's meeting with the formal signing of a Memorandum of Understanding between the FWC, the NWTF, and the FCNWTF. This document provides support for the continuation of the many mutually beneficial interests and activities of each party. Some of the related activities which the FWC participated in included attendance at: several of the FCNWTF board meetings, the annual NWTF Convention and Technical Committee meeting, 2 NWTF Field Day Events for children, and a NWTF "public relations" turkey release on Two Rivers Ranch.

The WTMP also attended the Southeastern Association of Fish and Wildlife Agencies Wild Turkey Technical Committee held in Tennessee. This committee is comprised of turkey biologists and researchers from 16 southeastern states. Their annual meeting forms a mechanism for information exchange on research, management, and other issues associated with the wild turkey.

The WTMP continues to administer a wild turkey registry program that awards certificates to hunters harvesting an outstanding gobbler. Dependent on the area where the turkey was harvested, either an Osceola (Florida) subspecies or the Eastern subspecies Outstanding Gobbler certificate is awarded for gobblers meeting minimum standards (at least an 11-inch beard and 1 ¼-inch spurs). A certificate is also awarded for youth hunters who harvest their first gobbler. Since the program's inception in 2001, 264 Outstanding Osceola, 86 Outstanding Eastern, and 146 First Gobbler certificates have been awarded.

### **Research and Development**

The FCNWTF provided \$5,000, matched with \$10,000 from the WTMP, to assist with implementation of a new research project designed to document wild turkey nesting and brood rearing success and use associated with management treatments designed to improve "native range" vegetation in central and southern Florida. These management treatments, primarily prescribed burning, roller-chopping, or a combination of the 2, are being applied at a landscape level as part of the Upland Ecosystem Restoration Program (UERP). The UERP is a large-scale initiative, involving numerous landowners and agencies, with an overall purpose of improving upland habitat for bobwhite quail, and other plant and wildlife species.

The turkey research element of the UERP was initiated on a 15,000-acre segment of the Three Lakes WMA. Nineteen hens were radio tagged this past winter (January through early March) and monitored during the nesting and brood rearing period to obtain habitat usage and home-range information. Detailed vegetation measurements were taken at selected location points (radio-telemetry points established through triangulation procedures) to document habitat usage and preference prior to application of the designated management treatments. Over the next few years, turkey usage and nesting success will be documented, and where possible, compared with these "base-line" conditions. Additionally, efforts are underway to expand this research onto another study site, most likely a private

ranch within the same region, to further document and evaluate the affects of these management treatments on wild turkey nesting and brood rearing.

In 1973 and 1977, the Game and Fresh Water Fish Commission (now the Fish and Wildlife Conservation Commission) conducted statewide assessments of wild turkey distributions. The WTMP initiated a similar survey during 2001. Wild turkey assessment surveys were mailed to 2,220 individuals, including FWC wildlife biologists and wildlife officers, land managers, natural resource professionals, antlerless-deer program participants, members of the FCNWTF, and others with knowledge of Florida's wild turkey resource. Respondents were then mailed county maps, for which they had indicated knowledge of turkey numbers on at least 1,000 acres, and asked to depict areas absent of turkeys, areas with low turkey populations, and areas with moderate to high turkey populations. As a result of these efforts, 604 individuals completed 1,179 county maps. These individual maps were then digitized into a Geographic Information System for analysis. Areas where more than one response was received were converted to a numerical scale (1 = absent, 2 = low, and 3 = moderate to high) and an abundance index was computed by calculating a simple average of all responses received for that location. The completed distribution map, which indicates that turkeys still occur in all 67 counties of the state, has been made available to the public for viewing through the FWC's Internet web page. Additionally, 300 posters of this distribution map were also printed for public distribution as well.

Currently, survey data is being modeled with additional data layers to relate turkey population distributions and relative abundance to vegetative communities, land ownership, harvest records, and other suitable data layers. This modeling process is quite complicated and has resulted in the need to obtain expertise outside of the WTMP. When these exercises are completed, though, this evaluation process will be capable of prioritizing areas of the state that have suitable turkey habitat, but absent or low turkey population, relative to possible opportunities for directed management or restoration initiatives.

### **PROGRAM DIRECTION**

The FWC underwent a substantial reorganization effective July 1, 2004. This reorganization shifted two biologists from the WTMP to other agency programs, thus leaving a biological administrator and staff assistant as the primary program personnel. Considerable assistance has been provided, however, by FWRI, and others, with ongoing activities and program obligations. Additionally, a cooperative wild turkey biologist position was established through a 3-year contract with the FWC, U. S. Forest Service (USFS), and NWTF. The NWTF serves as the employer for this position, but the 3 partners coordinate closely on the development of an annual work plan and provide specific oversight for accomplishment of these activities.

From the WTMP's perspective, this position oversees the annual FWC/NWTF cost-share program, now completing its thirteenth year, which, as previously stated, uses state turkey permit funds, matched with NWTF donated funds, to conduct projects on select public WMAs. From the USFS perspective, this position assists

with the preparation of Environmental Assessments on Florida's 3 National Forests to direct various wildlife management activities, and assists with other wildlife management opportunities. This position also continues to be involved with NWTF events (e.g., attend NWTF board meetings, assist with Field Day events, attend the annual Regional Biologist meeting, etc.) and identify other wildlife management and/or funding opportunities. The success of this partnership has also resulted in an effort to establish another cooperative biologist position through a partnership with the FWC, NWTF, and Florida's Division of Forestry.

A Wild Turkey Standing Team (WTST) has also been created, comprised of FWC staff from several organizational units (i.e., Hunting and Game Management, Law Enforcement, FWRI, Habitat and Species Conservation, and Regional Operations), as well as 2 associate members from the FCNWTF. This team is designed to provide input and assistance on ongoing program activities and emerging issues such that intra-agency viewpoints are obtained and specific tasks are assigned as appropriate. In this regard, the WTST initiated a process to draft a new wild turkey comprehensive management plan. This plan is now nearing completion, which will be instrumental in providing future direction for the WTMP. Moreover, this plan also identifies work elements involving other FWC entities and its success will be dependent on the abilities and willingness of these entities to include identified tasks within their annual operational plans.

Fundamentally, though, the WTMP embraces the goal of the new comprehensive plan, which is to, "Ensure healthy and sustainable wild turkey populations throughout the state while providing/promoting compatible uses of the resource." Moreover, the WTMP will continue to provide excellent customer service, increase positive contacts with conservation organizations, develop additional partnerships, and provide quality hunting areas, all of which benefit wild turkeys in the State of Florida.



Table 1. Wildlife Management Area projects funded through the FWC/NWTF cost-share program during fiscal year 2006-2007.

| Wild Management Area               | Project Description                                      | Project Cost |
|------------------------------------|----------------------------------------------------------|--------------|
| <b><i>Southwest Region</i></b>     |                                                          |              |
| Chassowitzka                       | Mowing of wildlife openings                              | \$4,150      |
| Green Swamp                        | Mowing of wildlife openings and roads                    | \$4,820      |
| Green Swamp West                   | Mowing of wildlife openings                              | \$2,518      |
| Green Swamp West                   | Infrared camera turkey survey                            | \$1,066      |
| KICCO                              | Roller-chopping of dense palmetto                        | \$8,000      |
| <b><i>South Region</i></b>         |                                                          |              |
| Corbett                            | Planting native trees and shrubs for habitat restoration | \$5,000      |
| Corbett                            | Prescribed burning                                       | \$8,000      |
| Fisheating Creek                   | Planting native trees and shrubs for habitat restoration | \$8,000      |
| Hungryland                         | Planting native trees and shrubs for habitat restoration | \$5,000      |
| <b><i>North Central Region</i></b> |                                                          |              |
| Andrews                            | Planting and fertilizing wildlife openings               | \$2,500      |
| Big Shoals                         | Planting and fertilizing wildlife openings               | \$2,500      |
| Camp Blanding                      | Prescribed burning for habitat improvement               | \$1,440      |
| Camp Blanding                      | Planting and fertilizing wildlife openings               | \$3,560      |
| Camp Blanding                      | Bait-station turkey survey                               | \$1,440      |
| Homosassa                          | Mowing of wildlife openings                              | \$2,475      |
| Osceola National Forest            | Planting and fertilizing wildlife openings               | \$8,000      |
| Raiford                            | Planting and fertilizing of wildlife openings            | \$3,500      |
| Twin Rivers                        | Planting and fertilizing wildlife openings               | \$3,000      |
| <b><i>Northwest Region</i></b>     |                                                          |              |
| Apalachicola Bradwell Unit         | Mowing of wildlife openings                              | \$2,000      |
| Apalachicola National Forest       | Planting and fertilizing wildlife openings               | \$8,000      |
| Apalachicola National Forest       | Progress Energy right-of-way planting                    | \$3,000      |
| Apalachicola River WEA             | Planting and fertilizing wildlife openings               | \$2,950      |
| Blackwater                         | Planting and fertilizing wildlife openings               | \$8,000      |
| <b>Table 1 Continued.</b>          |                                                          |              |
| Wildlife Management Area           | Project Description                                      | Project Cost |
| Blackwater                         | Energy for wildlife right-of-way planting                | \$1,465      |
| Blackwater Hutton Unit             | Planting and fertilizing wildlife openings               | \$8,000      |
| Blue Water Creek                   | Planting and fertilizing wildlife openings               | \$7,094      |
| Box R                              | Planting and fertilizing wildlife openings               | \$3,170      |
| Pine Log                           | Planting and fertilizing wildlife openings               | \$6,039      |
| <b><i>Northeast Region</i></b>     |                                                          |              |
| Dexter/Mary Farms Unit             | Planting and fertilizing wildlife openings               | \$5,000      |
| Dexter/Mary Farms Unit             | Infrared camera turkey survey                            | \$1,400      |
| Tiger Bay/Rima Ridge Unit          | Planting and fertilizing wildlife openings               | \$5,000      |

Table 2. Spring turkey season harvest estimates and 95% confidence limits for available mail survey data analyzed since 1988.

| Year                 | Harvest | 95% Confidence Limits |
|----------------------|---------|-----------------------|
| <u>Spring Season</u> |         |                       |
| 1988                 | 15,774  | 12,249 - 19,298       |
| 1989                 | 17,245  | 15,518 - 18,972       |
| 1990                 | 16,173  | 14,463 - 17,883       |
| 1991                 | 15,675  | 11,647 - 19,701       |
| 1992                 | 10,897  | 9,786 - 12,007        |
| 1993                 | 12,569  | 10,938 - 14,201       |
| 1994                 | 14,237  | 12,487 - 15,988       |
| 1995 <sup>a</sup>    | Na      | Na                    |
| 1996                 | 15,067  | 13,624 - 16,510       |
| 1997                 | 19,358  | 18,185 - 20,531       |
| 1998                 | 23,419  | 21,546 - 25,291       |
| 1999                 | 21,613  | 19,687 - 23,538       |
| 2000 <sup>b</sup>    | 15,446  | 14,749 - 16,144       |
| 2001                 | 14,214  | 13,571 - 14,856       |
| 2002                 | 15,495  | 14,814 - 16,176       |
| 2003                 | 15,509  | 14,752 - 16,265       |
| 2004                 | 17,241  | 16,529 - 17,953       |
| 2005                 | 25,057  | 23,521 - 26,593       |
| 2006                 | 21,507  | 20,366 - 22,648       |

<sup>a</sup> Mail survey was not conducted.

<sup>b</sup> The survey instrument was substantially changed, thus the harvest estimate is not readily comparable to previous years. Additionally, inconsistencies with the license database have likely contributed to the observed fluctuations in fall harvest estimates.

Table 3. Harvest, hunter pressure (total man-days of effort), and hunter success (number of days of effort per turkey harvested) for Special-Opportunity Turkey Management Area hunts for the 2007 spring turkey season.

| Wildlife Management Area | Harvest   | Pressure   | Success    |
|--------------------------|-----------|------------|------------|
| Triple N Ranch WMA       | 18        | 122        | 6.8        |
| Ft. Drum WMA             | 6         | 40         | 6.7        |
| Lake Panasoffkee WMA     | 7         | 75         | 10.7       |
| Dexter/Mary Farms WMA    | 23        | 111        | 4.8        |
| Homosassa WMA            | 6         | 25         | 4.2        |
| Fisheating Creek WMA     | 5         | 76         | 15.2       |
| Green Swamp West WMA     | 29        | 304        | 10.5       |
| <b>Overall</b>           | <b>94</b> | <b>753</b> | <b>8.4</b> |