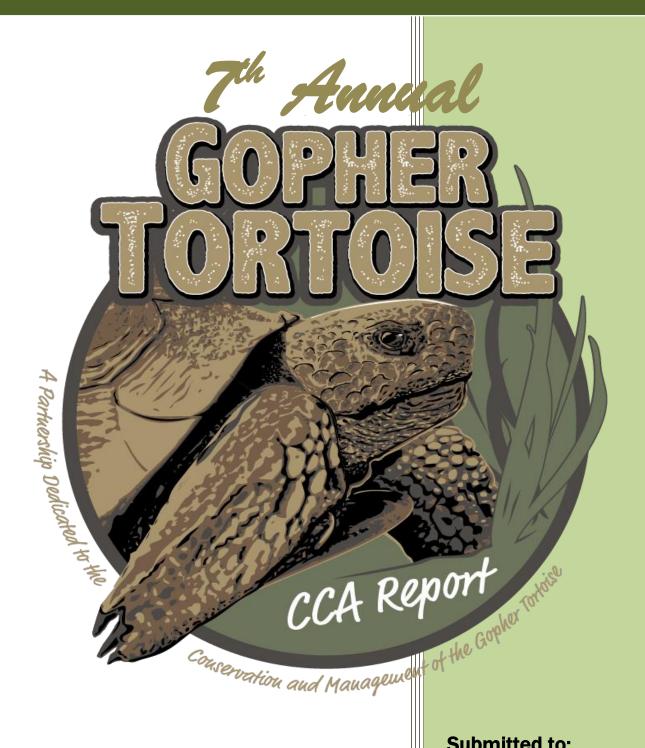
# **Candidate Conservation Agreement** for the Gopher Tortoise

October 1, 2014 - September 30, 2015



Submitted to:

**U.S. Fish and Wildlife Service** 

**March 2016** 

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#### LIST OF ACRONYMS

ACUB Army Compatible Use Buffer

ADCNR Alabama Department of Conservation and Natural Resources

**AFB** Air Force Base

AFC Alabama Forestry Commission AFF American Forest Foundation

**AGTHP** Aiken Gopher Tortoise Heritage Preserve

**APAFR** Avon Park Air Force Range

**CCA** Candidate Conservation Agreement

**CCAA** Candidate Conservation Agreement with Assurances

**CCAFS** Cape Canaveral Air Force Station

**DOD (or DoD)** Department of Defense

**DWFF** Division of Wildlife and Freshwater Fisheries

ESA Endangered Species Act
FFS Florida Forest Service
FLARNG Florida National Guard

FWC Florida Fish and Wildlife Conservation Commission

**FY** Fiscal year

GDNR Georgia Department of Natural Resources
GDOT Georgia Department of Transportation

GIS Geographic Information System
GPS Global Positioning System

GT Gopher Tortoise
GTT Gopher Tortoise Team

INRMP Integrated Natural Resources Management Plan

**LLA** Longleaf Alliance

LMIS Land Management Information System
LTDS Line Transect Distance Sampling

NAS Naval Air Station
NWR National Wildlife Refuge
PFW Partners for Fish and Wildlife

**REPI** Readiness and Environmental Protection Integration

**RxB** Prescribed burn

SCDNR South Carolina Department of Natural Resources

**SERPPAS** Southeast Regional Partnership for Planning and Sustainability

SP State Park

SREL Savannah River Ecology Laboratory

**SWG** State Wildlife Grant

TSRHP Tillman Sand Ridge Heritage Preserve URTD Upper Respiratory Tract Disease

U.S. United States

**USFS** United States Forest Service

USFWS United States Fish and Wildlife Service

WEA Wildlife and Environmental Area

WMA Wildlife Management Area
WRD Wildlife Resources Division

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#### INTRODUCTION

This is the 7<sup>th</sup> annual report for the Gopher Tortoise Candidate Conservation Agreement (GTCCA) that includes data and information from the signatory agencies and organizations to the agreement.

The gopher tortoise (*Gopherus polyphemus*) is endemic to the southeastern United States and has been in population decline in recent years. While the tortoise is federally-listed under the Endangered Species Act (ESA) in the western portion of its range, it is currently a candidate species for listing in the eastern portion which includes Florida, Georgia, Alabama, and parts of South Carolina. The "candidate" species status is a result of a petition to list the species (2006), and the subsequent 12-month finding published by the U.S. Fish and Wildlife Service (USFWS) in July 2011. As a response to the listing petition, stakeholders representing the fish and wildlife agencies of Florida, Georgia, Alabama, and South Carolina, branches of the Department of Defense, and related non-profit organizations drafted and executed a Candidate Conservation Agreement (CCA).

The goal of the CCA is to organize a cooperative range-wide approach to gopher tortoise management and conservation in its eastern range. The CCA allows the signing parties to leverage knowledge and funding within a common conservation approach and framework. The CCA is voluntary and flexible in nature so that various conservation and management actions can be agreed to and implemented at different levels by the signing parties.

Established under the CCA, the Gopher Tortoise Team (GTT) is charged with implementation of the Agreement. During the first 4 years of implementation of the GT CCA, the Chair position rotated among the states alphabetically, giving everyone an opportunity to learn about the implementation and administration of the agreement. The states recognize while in concept the rotation idea is good, the four states don't all have the same level of resources to put into leading the efforts of the CCA. Therefore, after a full rotation, the State representatives & leadership agreed in October 2012 that Florida will fill the responsibility as Chair of the GT CCA for the next 2 years (through October 2016), and Georgia will fill the role of Co-Chair. The leadership structure will be evaluated and the GTT will decide on future leadership structure. The Chair's responsibilities include organizing the annual meeting of the parties (or assisting another representative with organizing) and compiling the annual report required under the CCA.

The signatories continue to work together to organize the annual meetings. The States agree that it is important to rotate the location of the annual meeting to ensure the team leadership doesn't become Florida-centric. In 2015, the meeting was organized and hosted by the Alabama Department of Conservation and Natural Resources (ADCNR). The report logo was created by ADCNR graphics department for purposes of the 2015 GTT meeting and CCA report cover.

A standardized report format helps support an organized conservation approach and encourages uniform actions and reporting, integrate monitoring and research efforts with management, and support partnership formation. In 2014, the GTT did a minor clean-up to improve consistency in data reported by the signatories. The format is organized to

specifically address the 5-factor analysis used by the USFWS when evaluating a species for federal listing under the Endangered Species Act. The addition of tables was included to help streamline the data reported and ensure consistency among parties. It is also intended to help compile and build upon data each year, preventing the USFWS from losing or having to shuffle through older reports to assess the species status. The goal of the reorganized reporting structure is to ensure the information compiled by the CCA parties will be useful to the USFWS when re-evaluating the species as a candidate each year.

On June 10, 2015, the 7th annual meeting of the GTT was hosted by the ADCNR in Spanish Fort, Alabama. During the meeting, parties presented conservation programs and actions currently being implemented by each agency. Participants went on a tour of The Nature Conservancy's Splinter Hill Bog to view how the reintroduction of prescribed fire restored this unique pitcher plant bog and surrounding upland habitats. At the meeting, presentations included an update on the Minimum Viable Population working group progress, key successes in the conservation of tortoises in Alabama, a discussion on the implications and challenges of an increase of solar arrays installed in occupied gopher tortoise habitat, and an update on the Department of Defense crediting framework, among others. Discussion was held on changes and/or additions regarding the CCA signatory goals, and the need to update/revise the CCA in the future.

Following the meeting held in Spanish Fort, Alabama, the Alabama Forestry Commission became a new party to the Gopher Tortoise Candidate Conservation Agreement. Their addition to the GT CCA will be incorporated by amendment to the GT CCA following the meeting scheduled for June 2016. This will ensure that any other changes to the CCA the group deems necessary will also be included in the amendment.

The parties contributing to this report collectively own and/or manage more than 1.27 million acres of gopher tortoise habitat in the eastern portion of the species' range. An additional 11,500 acres of habitat was protected through easements and acquisition of public lands. Of those acres, more than 669,500 acres of gopher tortoise habitat was managed using a variety of tools, most commonly with prescribed fire with a large percentage occurring during the growing season. Some habitat was lost due to conversion to non-compatible uses such as solar arrays and other development activities. Gopher tortoises are commonly relocated when at risk or as a result of impending habitat alteration. In Florida, where the FWC manages a comprehensive regulatory program for tortoises, more than 5,500 tortoises were relocated to protected lands and released into temporary enclosures for a minimum of 6 months. Many of the other parties also relocated tortoises (total of 508) into temporary enclosures, however, this is not yet a standardized practice among all parties. Improvements to avoid/minimize the use of hard release is an important conservation practice to implement that, based on scientific studies, results in a greater conservation benefit for the tortoises.

Implementation of the standard population survey methodology, Line Transect Distance Sampling (LTDS), is underway across the species' range. Significant population data is included in this report and shows many viable populations in both Georgia and Florida occurring mainly on public conservation lands. Some data provided still represents presence/absence as a means to avoid impacts from projects not for monitoring populations,

however, most if not all parties have implemented LTDS on some level or have plans to do so in the near future.

Comprehensive reports were submitted by each CCA party in February 2016 with the last report received in March for the period covering October 1, 2014 – September 30, 2015. Reports were not received from the Poarch Band of Creek Indians, the U.S. Marine Corps, and the American Forest Foundation. Numerous reminders were sent via email with no response from those parties. A draft of this report was emailed for review to the points of contacts for each party, and all corrections have been incorporated into this final draft.

It is important to note that not every section of the report is applicable to every party. Parties with no information appropriate to a particular section have indicated this with "not provided," "not applicable," or "none provided" this reporting period." Reports were submitted by each party's point of contact and compiled by the Chair with minimal edits.

Thank you to all the parties for compiling this information on behalf of their agency and on behalf of gopher tortoise conservation. This annual report continues to be vital for range-wide conservation of this keystone species.

#### **EXECUTIVE SUMMARY**

#### UNITED STATES ARMY

The US Army has five installations within the eastern portion of Gopher Tortoise (GT) range that have and manage GT populations. They are Fort Benning, Camp Blanding Joint Training Center, Fort Gordon, Fort Rucker, and Fort Stewart. All installations have an active and current Integrated Natural Resources Management Plan (INRMP). The Army has approximately 3,377 acres of protected (private) lands and 140,632 acres of other lands of potential gopher tortoise habitat that is it owns or manages. During this reporting period, the Army restored or managed 54,706 acres of tortoise habitat, prescribed burned 25,577 acres in the growing season and 23,994 acres in the dormant season, treated 203 acres of invasive plant species, managed 4,932 acres of longleaf pine (planted or mechanical), and trapped feral hogs and coyotes. Below are each installation's summary of GT activities for FY 15.

Fort Benning is divided into 4 habitat management units (HMUs) totaling 27,816 acres of tortoise habitat. They planned to conduct a Line Transect Distance Sample (LTDS) on one of the four HMUs on the installation each year providing them with a four year return interval. In accordance with the CCA and Army Guidelines, Fort Benning conducted one LTDS using the Distance 6.0 software in 2015. During February through March 2015, a LTDS was conducted on HMU 1, which totals 2370 hectares of habitat. Fort Benning is in the process of further refining our habitat delineations within each HMU. The goal is to get a better estimate on the current suitable habitat and to provide management recommendation on areas of potential habitat to improve it to suitable habitat standards. Once the habitat areas are better defined, it will be resurveyed. Habitat improvements included prescribed burning on potential habitat.

At Camp Blanding Joint Training Center, prescribed fire was used to maintain or improve 3,452 acres of gopher tortoise habitat, with 2,837 acres burned during the growing season and 615 acres burned during the dormant season. Seventy-four acres of invasive plant species were treated. Thinning occurred over 50 acres. Longleaf pine seedlings were planted on 72 acres. Sand pine clear cuts totaled 237 acres (non-contiguous), to be replaced in longleaf pine. Approximately 11 acres in wiregrass plugs and 6 acres of native seed were planted.

Fort Gordon Natural Resources Branch maintained or improved 11,669 acres of habitat for the gopher tortoise through timber thinning, herbicide spraying, mechanical midstory removal, and prescribed fire. A population survey that was initiated in FY2014 was completed in FY 2015 for a portion of the HMU.

Fort Rucker forest management activities beneficial to gopher tortoises such as thinning, timber stand improvement, and invasive species control were continued during FY 2015. The installation also pursued predator control by trapping feral hogs and coyotes. The

NEPA project review process continued to formally look at proposed projects for impacts to gopher tortoise habitats and to existing tortoise populations.

Fort Stewart conducted a gopher tortoise (GT) population resurvey of Zone 1-3 in 2013-2015. Hardwood midstory was reduced on 750 acres of gopher tortoise habitat via heavyduty mowing and an additional 996 acres have been delineated and will be treated (heavyduty mowing and herbicide) in FY 16 after coordination with other Branches. Fort Stewart performed prescribed burning of 10,306 acres (5,911 growing season; 4,395 dormant season) of GT habitat. The installation supported numerous information and outreach events, research projects, and scientific publications relating to GT conservation. Further note that there are 3,377 acres of GT habitat within Fort Stewart's ACUB that are permanently protected either by ownership or permanent easement (excluding lands owned or protected by GA DNR or GA DOT). Fort Stewart staff does not monitor these acres, but there are documented occurrences on some tracts and anecdotal evidence that GT may occur on other tracts based on soil type.

#### UNITED STATES NAVY

The US Navy has six installations within the eastern range of the Gopher Tortoise (GT) that completed management activities: Naval Submarine Base (NSB) Kings Bay in southeastern Georgia, Naval Air Station (NAS) Jacksonville and Naval Station (NS) Mayport in northeastern Florida, Naval Support Activity (NSA) Orlando in central Florida, and NAS Whiting Field and NAS Pensacola in the western Florida panhandle. NAS Whiting Field also has lands in southern Alabama. Naval Support Activity (NSA) Panama City occurs in the range of the GT but does not support a GT population. All installations have an active and current Integrated Natural Resources Management Plan (INRMP). During this reporting period, the Navy managed 12,357 acres of tortoise habitat, prescribed burned 170 acres, treated 409 acres of invasive plant species, planted 68 acres to longleaf pine, and eliminated 25 feral hogs, five coyotes, and three feral cats. Surveying for the GT continues to be an ongoing action. In 2015, an estimated 590 tortoises occur on the six Navy installations noted above. Issues with disease were determined to be absent, minimal, or managed. Predation of GT's throughout the region on Navy installations continues to be a concern, but at this time it is believed that the impacts are minimal and the Navy is actively managing predator populations. There were 44 permanent translocations conducted. Habitat was lost at NSB King's Bay and NAS Whiting Field (NOLF Holley) due to solar panel projects; habitat was gained by adding NSA Orlando (Bugg Springs), and habitat was added at NAS Pensacola due to a re-mapping project, creating a new total Navy acreage of 12,357 acres. Community outreach consisted of continued distribution of brochures, posters, informational signage, and news articles, and indoctrination training to newly assigned military personnel. No new regulations, laws, or policies were changed or implemented, although relocation and protection requirements were strengthened and enforced at all installations. There were no deviations or additions regarding the CCA Agency Conservation Strategy. Individual installation activities are reported in the following sections where appropriate. Navy GT management addresses the five Listing Factors identified in section 4 (a) (1) of the Endangered Species Act - Listing Factor One (present or threatened destruction, modification, or curtailment of the species' habitat or range), Listing Factor Two (overutilization for commercial, recreational,

scientific, or education purposes), Listing Factor Three (predation or disease), Listing Factor Four (existing regulatory mechanisms), and Listing Factor Five (other manmade or natural factors affecting the species' continued existence). Navy GT management provided a net benefit to the species and its habitat with regard to all five Listing Factors. No adverse actions were identified in reference to the five Listing Factors for GT populations or habitat on Navy lands.

#### US NAVY INSTALLATION OVERVIEW

NSB Kings Bay, GA, POC: Kurt Moseley, kurt.moseley@navy.mil; (912)-573-4678 Prescribed burning was not conducted in 2015 due to excessive rainfall during the scheduled burn period. Five feral hogs, 2 raccoons, 7 opposums, and 3 feral cats were removed from gopher tortoise habitat. The University of Georgia Savannah River Ecology Lab began a GT burrow monitoring study that will run through 2016. A solar panel array project began in August 2015 that resulted in the loss of approximately 150 acres of regenerating longleaf pine habitat and translocation of two gopher tortoises to an undisturbed area of the installation.

NS Mayport, FL, POC: Patricia Loop, patricia.loop@navy.mil; (904)-270-6816 Surveying for GT's was accomplished on 127 acres resulting in discovery of 16 burrows (10 active and 6 inactive). The burrows were mapped using ARC GIS. Routine education was provided during base indoctrination briefings to new personnel that included endangered species topics. In addition, informative signs continue to be posted on dune crossovers.

NAS Jacksonville, FL, POC: Angela Glass, angela.glass@navy.mil; (904) 542-2798 Gopher tortoises are located in mission sensitive areas on NAS Jacksonville, Outlying Landing Field (OLF) Whitehouse and Rodman Range. In addition to Navy-owned lands, gopher tortoise populations occur at the Navy's Pinecastle Range, land leased from the U.S. Forest Service. NAS Jacksonville protects habitat for gopher tortoises through active management of factors such as landscaping and grounds maintenance, invasive species control, silvicultural activities including forest thinnings, prescribed burning, reforestation, and forest protection. Activities during 2015 included habitat restoration with 57 acres of slash pine plantation converted to longleaf pine at Rodman bringing total area of conversion to 355 acres of restored longleaf pine habitat and the removal of 20 feral hogs at OLF Whitehouse. One tortoise was translocated by its capture and return to a protected Watchable Wildlife area. Indoctrination training for over 100 newly assigned military personnel included gopher tortoise information and identification. Local schools that visit the Interpretive Center are given an opportunity to see a burrow scope with a "mock" burrow and learn about this keystone species, this year over 800 students visited the center. Signage is used to designate new burrows on base for protection.

## NSA Orlando, Bugg Springs Facility, FL, POC: Robby Smith, robby.smith@navy.mil; (904)542-6877

The Bugg Springs facility/property consists of 80 total acres in Okahumpka, FL. The Gopher Tortoises (GT) found on the property are primarily located in the abandoned agriculture field/cleared meadow, residential grounds, and on the edges of the upland hardwood forest. Currently, the Bugg Springs property has 30-40 acres of suitable GT

habitat. NSA Orlando protects habitat for GTs and their associated habitat at the Bugg Springs property through active management of factors such as invasive plant species control and habitat enhancement projects (e.g. mechanical reduction of forest understory). During 2015 activities to improve GT habitat included a 25 acre habitat enhancement project to reduce the forest understory in an area that was severely overgrown and in need of mechanical thinning.

NAS Whiting Field, FL, POC: Ron Cherry, ron.cherry@navy.mil; (850) 623-7602 NAS Whiting Field has a wide-ranging and significant gopher tortoise population with a total of 4,384 acres of GT habitat maintained. Gopher tortoises occur at 10 of 15 installation properties in five counties in Florida and Alabama. Activities during 2015 involved significant planning and early project work to translocate 36 gopher tortoises onsite at NOLF Holley in preparation for a solar power project. Translocation areas were prepared by prescribed burning and enclosures were constructed. Additional work and reporting on the project will be included in the 2016 GTCCA report. Other work included continued surveys and burrow marking for protection from grounds maintenance activities. To supplement Navy staff, interns from the Student Conservation Association were employed with an emphasis on surveying for new burrows at NAS Whiting Field and NOLF Holley. Prescribed burning was completed on 60 acres and 352 acres of invasive species were treated at NAS Whiting Field and NOLF's to improve gopher tortoise habitat. Surveys for new burrows were completed at NAS Whiting Field. The University of Georgia's Savannah River Ecological Lab Completed the GT viability study at NAS Whiting Field and NOLF Holley to determine if the populations at these locations are decreasing. Although photos suggest that predators are present, no direct evidence of predation was found. Habitat could be improved by thinning of forest stands and use of more prescribed fire.

NAS Pensacola, FL, POC: Michael Hardy, mike.hardy@navy.mil; (850) 452-3131 x 3016 - NAS Pensacola has gopher tortoise populations at the main installation, Bronson Field, and Saufley Field. In 2015, AmeriCorps interns from the Student Conservation Association were employed with an emphasis on GT management, inventory, and protection. A timber sale was conducted improving GT habitat on 80 acres at NAS Pensacola. Prescribed burning was accomplished on 110 acres of gopher tortoise habitat, 40 acres of Cogon grass was treated, and five coyotes were removed from areas that were accessible to gopher tortoise habitat. In addition, 11 acres were planted to longleaf pine. Translocation plans were implemented to survey and document gopher tortoise in the primary surface clear zones at the NAS Pensacola airfield. Six tortoises were translocated from within 100 feet of the primary surface of the NAS Pensacola runway to a fenced gopher tortoise population area on the installation's north side, and two tortoises were translocated from an armory storage area. The installation also continued to provide Navy Region Southeast support by assigning the Natural Resources Manager as the Navy GTCCA point of contact and coordinator.

#### UNITED STATES AIR FORCE

The US Air Force (USAF) continues to achieve high caliber gopher tortoise management on all properties with potential habitat. To this end, USAF funded \$4.6M in projects in fiscal

year 2015 to support gopher tortoise. Activities funded included improving/maintaining longleaf pine through prescribed fire, invasive species control, mechanical treatments, and planting longleaf pine and native understory species; survey and monitoring of gopher tortoise populations; and controlling nuisance/predatory wildlife on 7 installations. With the stand-up of the USAF Wildland Fire Center, installations are achieving record-breaking prescribed burn acreages, improving habitats for the benefit of gopher tortoise and other species, and supporting the military mission.

45th SW (Patrick Air Force Base [AFB] and Cape Canaveral Air Force Station [AFS]), FL: Completed surveys for presence/absence in support of various construction, utility, and other miscellaneous projects. Completed excavation/bucket trapping and relocation of gopher tortoises in support of projects where gopher tortoise burrows could not be avoided. Completed restoration/management of gopher tortoise habitat through mechanical cutting of overgrown scrub, prescribed fire, and treatment of invasive flora through mechanical cutting and/or herbicide application. Additionally, monitoring of previously treated invasive vegetation continued to prevent re-growth. Removed nonnative and/or nuisance wildlife (raccoons, feral hogs and coyotes) to support protection of threatened and endangered species. Conducted educational outreach through display of gopher tortoise information at local wildlife and birding festival, and provided natural resources training to security forces and other AF personnel that conduct off road activities – gopher tortoises were included in the training.

Avon Park Air Force Range (APAFR), FL: A survey of scrub habitats within APAFR was completed. An intensive survey of four key habitat sites (two in scrub and two in native flatwoods) was initiated to determine demographic parameters of the gopher tortoise population, sex ratio, juvenile survival adult survival, etc. Prescribed fire, longleaf pine planting, and invasive species control were conducted, and feral hogs were removed.

**Eglin AFB, FL**: Eglin AFB continued to manage ~383,000 acres of potential gopher tortoise habitat. Management tools include prescribed fire, chemical treatment of hardwood midstory, chemical treatment of invasive plants, control measures for invasive exotic animal species and sandpine removal. 12 tortoises had to be relocated as a result of construction and 23 tortoises were relocated from airfield environments, and 1 waif tortoise was relocated during this time period. Population monitoring documented new burrows in areas of existing tortoise populations and surveys were conducted in new areas where the status was previously unknown. All burrows located were mapped and data collected for each included status, and size.

MacDill AFB, FL: During 2015, MacDill AFB ramped up their prescribed burn program by burning over 70 acres of pine flatwood community to improve habitat values and encourage the expansion of existing gopher tortoise colonies. Continued aggressive invasive species control program to improve habitat quality within existing gopher tortoise habitat and adjacent areas. Treated 2,300 acres to kill-in-place invasive species such as Brazilian pepper, Lead tree, and cogon grass. Mechanically removed Brazilian pepper from approximately 10 acres of gopher tortoise habitat. Following removal of the Brazilian pepper, the disturbed areas were replanted with native grass species.

Moody AFB, GA: With approximately 1,000 acres of gopher tortoise habitat, Moody AFB manages gopher tortoise through projects identified in the Moody AFB Integrated Natural Resources Management Plan with concurrence by the Georgia Department of Natural Resources and the U.S. Fish and Wildlife Service. Current projects include: seasonal monitoring and surveys of known gopher tortoise populations; disease surveillance for Upper Respiratory Tract Disease; gopher tortoise movement studies in relation to military activities; gopher tortoise mark-recapture population demography study; habitat improvement/restoration through burning, chemical release, and mechanical means.

**Tyndall AFB, FL:** Active management included restoration to 8,496 acres of habitat through prescribed burning and 620 acres of invasive species treated. GT outreach continued with brochures provided to housing residents and in support of Security Forces "COPS Night Out". Nuisance wildlife were removed.

#### UNITED STATES MARINE CORPS

No report received.

#### UNITED STATES FOREST SERVICE

Gopher tortoises occur in both Covington and Escambia counties of Conecuh National Forest. Conecuh's gopher tortoise population is likely the largest in Alabama. The gopher tortoise and its burrows are protected on Conecuh National Forest by a Supervisor's Closure Order that bans the gassing of burrows and by timber sale specifications requiring protection of burrows. Management activities conducted in Alabama and Florida during FY15 for the restoration and maintenance of native fire ecosystems that support gopher tortoise include: timber thinning in mature longleaf stands, timber harvest to restore native over-story species (longleaf), prescribed fire and associated activities (e.g., fire line maintenance), wildlife opening maintenance, mid-story and understory restoration using mechanical and herbicide treatments, road and fireline restoration activities, gopher tortoise surveys, chemical treatment and eradication of cogon grass, , native grass seed collection and propagation for future restoration needs, and educational efforts through outreach and interpretation.

#### UNITED STATES FISH AND WILDLIFE SERVICE

For the U.S. Fish and Wildlife Service, data is being submitted for both the **Partners for Fish and Wildlife (PFW) Program** and for the **National Wildlife Refuges (NWR)**.

#### Partners for Fish and Wildlife Program

The Partners for Fish and Wildlife (PFW) Program helps private landowners meet habitat objectives on their properties by providing financial and technical assistance. Longleaf pine and gopher tortoise habitat remain a major focus of PFW in the southeast. In 2015, PFW biologists completed projects in Alabama, Georgia, and Florida for the benefit of gopher tortoises. No projects were done in the South Carolina portion of its range. Projects in Alabama and Georgia have landowner agreements of 20-30 years. Those in Florida are 10 year agreements. No population status surveys or biological response monitoring were

carried out on these lands due to lack of capacity. However, anecdotal evidence shows presence of gopher tortoises on or adjacent to many of these projects, and they are all done in the gopher tortoise range.

Data in table 2 represent accomplishments for 2015 in Georgia, Alabama, and Florida. In Georgia and Alabama most of the acres are from a PFW pilot initiative specifically aimed at gopher tortoise habitat on private lands. This initiative requires a 20-30 year commitment from landowners to maintain conservation practices implemented. One criterion for these projects is that gopher tortoises must occur on or adjacent to a given property. It is intended to provide regulatory predictability to landowners under the Endangered Species Act.

#### National Wildlife Refuges

Ten Thousand Islands NWR (FL), Cedar Keys NWR (FL), and Eufaula NWR (AL) are being removed from the list of refuges submitting reports. Those refuges contributing to the 2015 annual report include:

<u>Florida</u>: Archie Carr NWR (AC); Chassahowitzka NWR (CH); Egmont Keys NWR (EK); Everglades Headwaters NWR (EH); Hobe Sound NWR (HS); J.N. "Ding" Darling NWR (DD); Lake Wales Ridge NWR (LWR); Lake Woodruff NWR (LW); Lower Suwannee NWR (LS); Merritt Island NWR (MI); Pelican Island NWR (PI); St. Marks NWR (SM); St. Vincent NWR (SV)

Georgia: Okefenokee NWR (OK)

Archie Carr NWR: No surveys were performed. 114 acres were treated for invasive plants.

Chassahowitzka NWR and Egmont Keys NWR: The Crystal River NWR Complex (CRNWR) is comprised of five refuges: Crystal River, Chassahowitzka, Egmont Key, Pinellas, and Passage Keys NWRs. Only Egmont Key and Chassahowitzka NWR have gopher tortoises. Due to severe staff shortages and endangered species priorities, no surveys have been conducted for gopher tortoises by refuge staff. Exotic plants continue to be removed on Egmont Key and Chassahowitzka refuges and fire ants are controlled on both refuges also. In October 2014, the USCG removed soil at the base of the lighthouse on Egmont Key which was contaminated with lead paint. A gopher tortoise survey was conducted by a qualified contractor prior to the soil removal. A beach renourishment project from November 2014-March 2015 deposited 450,000 cubic yards of sand on Egmont adding to the eroding acreage of the island.

Everglades Headwaters NWR: The Refuge currently consists of about 4,000 acres (fee: 1,500 acres; easements: 2,500 acres). Management for GT has been limited to treatment of invasive exotic plants. No prescribed burns or GT surveys were conducted in 2015.

<u>Hobe Sound NWR</u>: The Hobe Sound NWR encompasses 1,035 acres of coastal beach, mangrove, hammock, and scrub. Gopher tortoises occur on about 250 acres of sand pine scrub and 25 acres of coastal dune habitat. During the period of performance invasive plants were removed from 100 acres of occupied gopher tortoise habitat. A preliminary gopher tortoise survey was conducted on approximately 10 acres. We also provided

educational opportunities to school groups and the general public. A prescribed fire was conducted on 8 acres of sand pine scrub habitat.

<u>J.N.</u> "<u>Ding</u>" <u>Darling NWR</u>: Gopher tortoise surveys were conducted but not completed on all suitable habitats within the refuge. Habitat management actions included: mowing and maintaining fire breaks and the treatment of all non-native invasive plant species.

<u>Lake Wales Ridge NWR</u>: Approximately 491 acres of potential gopher tortoise habitat were treated for all Category I and II invasive plant species on the Flamingo Villas unit. About 350 acres were burned on Carter Creek unit. No surveys were conducted.

<u>Lake Woodruff NWR</u>: Refuge continued to manage habitat for gopher tortoises by controlling exotics and prescribed burning.

Lower Suwannee NWR: In 2015, Refuge staff surveyed for gopher tortoises only as a protective measure in areas slated for manipulation – i.e., areas to be logged or cleared for trails, shooting range, etc. The LTDS pilot study that was completed in 2013 still provides the best data for population on the Refuge as resources are currently lacking to complete the full LTDS survey here. Refuge staff was able to apply prescribed fire to 4,024 acres; approximately 1,341 acres of which is good potential gopher tortoise habitat. Refuge staff also gave two presentations on tortoises and other pinewoods/fire habitat obligate species, and again publicly demonstrated gopher burrow camera equipment at a Refuge special event. Other outreach efforts on Refuge include kiosks, signage, along with information on gopher tortoises in the Refuge brochure and on the website.

<u>Merritt Island NWR</u>: Refuge continued to manage habitat for gopher tortoises by controlling exotics and prescribed burning.

<u>Pelican Island NWR</u>: A visual survey was performed. 140 acres were treated for invasive plants.

<u>St. Marks NWR</u>: No specific population monitoring efforts were undertaken at St. Marks NWR during the reporting time frame. Portions of potential gopher tortoise habitat were burned during both the growing and the dormant seasons. The total number of acres reported as land protected or managed for gopher tortoises has dropped due to an update in the data sets. No actual lands were lost.

St. Vincent NWR: This fiscal year stewardship consisted of growing season prescribed burning, invasive exotic plant removal, and nonnative predator control, e.g., armadillo, coyote, and swine removal. Annual public raccoon and hog hunting also benefited gopher tortoise conservation. Occupied gopher tortoise habitat (approximately 373 acres) includes beach dunes and scrub. Potential gopher tortoise habitat (approximately 5742 acres) includes beach dunes, coastal grasslands, scrub, and pine flatwoods. No specific population monitoring efforts were undertaken at St. Vincent NWR during this time period.

Okefenokee NWR: UGA DNR completed gopher tortoise line transects on Okefenokee NWR and Forest Investment Associates (FIA) timber lease lands. They estimated the gopher

tortoise population on the Refuge to be approximately 405, at a density of 2.2/ha. On FIA timber lease lands of Okefenokee NWR, a population of 576 was estimated at a density of 1.45/ha. This gopher tortoise population is quite firmly in the "long-term viable" category, and, GA DNR's Matt Elliot believes the population is probably one of range-wide significance. Gopher tortoise burrows were even found in poorly drained Leon or Lynn Haven sands. Greater numbers were found in these soils on refuge lands than on FIA timber lease lands due most likely to the presence of fire maintaining suitable tortoise habitat and the lack of soil compaction from heavy equipment. In addition, they observed 8 gopher frogs in tortoise burrows (2 in one burrow!) on the refuge and 5 more on an adjacent tract.

#### ALABAMA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

The State of Alabama permanently protects or manages approximately 19,000 acres of tortoise habitat on public lands to include Barbour, Geneva, Perdido, and Upper Delta Wildlife Management Areas (WMAs), Fred T. Stimpson and Upper Place Wildlife Sanctuaries, and Elhew Research Station. The Alabama Department of Conservation and Natural Resources, Division of Wildlife and Freshwater Fisheries (DWFF) and the State Lands Division (SLD) continue to work together to restore and maintain gopher tortoise habitat on both DWFF, Forever Wild Land Trust, and SLD lands. Land management conducted by agency staff included 3588 acres of prescribed burning, removal of 144 acres of invasive plant species, 2306 acres clearcutting or thinning, planting 1487 acres of longleaf pine, planting 650 acres of native warm season grasses, and feral hog and coyote removals. During this reporting year 5725 acres were added to the Geneva WMA. The land under DWFF ownership, within the Geneva WMA, currently protects approximately 9325 acres of gopher tortoise habitat. A DWFF secured State Wildlife Grant continues to fund survey work on public and private lands. Survey work and population estimates using line transect distance sampling have been completed on 3 public properties this reporting period and include an area of the Conecuh National Forest (USFS), Geneva State Forest (AFC), and Perdido WMA (Forever Wild Land Trust). Survey results are included in this report. Ongoing surveys include the Auburn University Solon Dixon Forestry Education Center, Fred T. Stimpson and Upper Place Wildlife Sanctuaries and the Elhew Research Station. Education and outreach efforts continue to be a priority though progress has been slow due to time and staffing constraints. Projects that are currently underway or that have been completed set the stage for future outreach opportunities in the next fiscal year.

#### FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Progress on the implementation and completion of conservation actions outlined in the Gopher Tortoise Management Plan (GTMP, September 2012) continue to be achieved. The GTMP guides the continued recovery of the gopher tortoise in Florida through 2022. For this 10-year plan, the overarching objective of no net loss of gopher tortoises will be accomplished by meeting four objectives: minimize loss, increase and improve habitat, enhance and restore populations, and maintain the gopher tortoise's function as a keystone species. The plan presents a suite of conservation strategies and actions that serve to achieve these objectives. The actions are captured under the following broad categories: regulation, permitting, local government coordination, law enforcement, habitat protection,

habitat management, population management, disease management, incentives, monitoring, education and outreach, and research. Significant progress has been made on completing gopher tortoise surveys using Line Transect Distance Sampling under a contract with the Joseph W. Jones Ecological Research Center. Future plans to continue this effort with a new contractor are planned for the upcoming year. New technologies to engage citizens and obtain data on sightings and also road mortality have been implemented and initial data is being collected. A significant mortality was documented in August 2015 at Lake Louisa State Park and follow-up surveys and sampling has been done and is planned for this year. Development in Florida has significantly increased and the number of gopher tortoises relocated has also increased. The permitting system created in 2008 is working well and the recipient sites are managing the habitat and monitoring the populations as required. Permitting guidelines' revisions were approved by the FWC Commission in February 2015 and have been fully implemented.

Additionally, The Florida Department of Agriculture adopted new Wildlife Best Management Practices for Forestry and Agriculture and are in the process of being implemented. The FWC continues to work with stakeholders to discuss any new challenges and work together toward possible solutions throughout the implementation of the Gopher Tortoise Management Plan. The continued participation of stakeholders is important to the long-term conservation of the species. The implementation and completion of many management plan actions to protect the gopher tortoise and its habitat has made an impact on the status of the keystone species and continues to show progress toward achieving conservation.

#### GEORGIA DEPARTMENT OF NATURAL RESOURCES

The State of Georgia permanently protects 40,525 acres of gopher tortoise habitat on Wildlife Management Areas, Public Fishing Areas, State Parks, and Historic Sites. Land management conducted by GA DNR-WRD personnel beneficial to the gopher tortoise on these properties included prescribed burning of 22,936 acres, thinning or clear-cutting 1,087 acres of off-site planted pines, removal of invasive plant species from 815 acres, planting longleaf pine on 2,252 acres, and planting native warm-season grasses on 30 acres. Through the approval of eight conservation easements and the purchase of Altama Plantation, GA DNR-WRD protected 1,725 acres of tortoise habitat during the reporting period. GA DNR-WRD conducted or contracted gopher tortoise surveys and population estimates, using line transect distance sampling (LTDS), on 24 sites, including four state-owned properties. 207 gopher tortoises displaced by development (mostly solar farms) were translocated to four protected DNR-WRD lands, and 143 head-started juvenile tortoises were released at Yuchi WMA. Numerous electronic newsletter articles, workshops, programs, and events aimed at increasing awareness for gopher tortoise conservation among both professionals and the general public were conducted during the past year.

#### SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES

During the 2014-2015 reporting period several staffing changes within the groups and regions responsible for land management activities have occurred. Both Joachim Treptow and Dr. Michael Small accepted new positions within the department and both Heritage

Preserve Manager positions were filled. James "Trapper" Fowler accepted the Heritage preserve Manager for Tillman Sand Ridge Heritage Preserve (TSRHP), and Barry Kesler accepted a promotion to Heritage Preserve Manager at Aiken Gopher Tortoise Heritage Preserve (AGTHP). Both have previous longleaf pine habitat management experience and will continue efforts at their respective preserves to maintain and restore gopher tortoise habitat, and to secure the persistence of this species in South Carolina.

Land management activities at both Tillman Sandridge Heritage Preserve (TSRHP) and Aiken Gopher Tortoise Heritage Preserve (AGTHP) have continued, and population augmentation and enhancement activities, using waif tortoises have continued at Aiken Gopher Tortoise Heritage Preserve. To date, 238 individual tortoises have been reintroduced to the AGTHP landscape (127 adults, 45 juveniles and 66 hatchlings/yearlings). Nest searches on site, reveled signs of reproduction, and 7 nests were dug resulting in 32 eggs. The 30 hatchlings from this work will be released in spring 2016. SREL staff provided two papers from work conducted at AGTHP titled, 1) Gopher Tortoise Dispersal and Home Range Establishment following Penning: Implications for Translocations and 2) Use of Waifs as a Means to Restore Population Viability of Gopher Tortoises at the AGTHP, South Carolina. Additionally the Memoranda of Understanding with Florida Fish and Wildlife Conservation Commission was renewed and extended, allowing SCDNR to receive additional waif tortoises for the AGTHP.

SCDNR has secured funding to perform Line Transect Distance Sampling (LTDS) at gopher tortoise sites within South Carolina for the first time since the late 1970's. During the reporting period we have purchased and tested all equipment and performed LTDS at TSRHP. Results from this work will be available in the next annual report as well as a report on the status of other gopher tortoise sites in the state. We have hired a survey crew to perform the studies and will begin in January 2016.

SCDNR representative Will Dillman participated in the annual Gopher Tortoise CCA meeting in Daphne, AL and the annual Gopher Tortoise Council meeting in Covington, LA.

#### GEORGIA DEPARTMENT OF TRANSPORTATION

Georgia Department of Transportation assesses habitat and conducts presence/absence surveys for gopher tortoise within proposed project corridors across the species range in numerous counties. No tortoises have been relocated as a result of GDOT's activities during the 2013-2015 fiscal calendar years. In 2013, GDOT designers and ecologists approved the Department's first wildlife passage culvert designed specifically for gopher tortoise and the eastern Indigo snake, which was constructed in 2015 along State Route 135 in Jeff Davis County.

#### POARCH BAND OF CREEK INDIANS

No report received. Numerous attempts were made to contact the tribe with no success.

#### AMERICAN FOREST FOUNDATION (AFF)

No report received.

#### LONGLEAF ALLIANCE

The Longleaf Alliance does not directly own land, but staff does manage gopher tortoise habitat directly in each of the 3 Longleaf LITs we lead. The majority of this work occurs in the Gulf Coastal Plain Ecosystem Partnership, whose 12 current public and private partners collectively manage over 1,050,000 acres of western Florida and southern Alabama conservation lands. LLA staff directs this partnership and our Ecosystem Support Team (5 staff) work across the partnership on prioritized burns, invasive species control, monitoring, mechanical preparation for fire, and other essential conservation actions. Significant funding is provided from NFWF/Southern Company LSF grants, and from other Federal partners, but all members of the partnership contribute and share resources. Other vital work in similar functions occurs in the Ft. Stewart/Altamaha Partnership in Georgia and in the SoLo-Ace Longleaf Partnership in South Carolina.

#### JOSEPH W. JONES ECOLOGICAL RESEARCH CENTER

Gopher tortoise population monitoring at Ichauway is conducted every 5 years. Our most recent monitoring effort took place in fall 2011 and our next survey is scheduled for fall 2016. Management activities in 2015 included prescribed burning on 12,910 ac of potential gopher tortoise habitat. Hardwoods were mechanically removed from approximately 63.6 ac of uplands to allow reintroduction of prescribed fire. Research activities in 2015 included completion of a graduate student project examining predation rates of gopher tortoise nests relative to nest site selection and the impacts of red-imported fire ants on survival of nests and hatchling tortoises.

#### ALABAMA FORESTRY COMMISSION

The Alabama Forestry Commission (AFC) entered the Gopher Tortoise CCA in November of 2015. The AFC manages eight state forests within the gopher tortoise's (GTs) range. Geneva State Forest (GSF) and Little River State Forest (LRSF) are the largest two and provide permanent protection for GTs. These two state forests total 9,363 acres, GSF is 7,200 acres and LRSF is 2,163 acres. GSF has AFC personnel permanently stationed there, while LRSF utilizes surrounding county personnel to conduct operations. It is one of AFC's objectives to continue improving GT habitat on GSF and LRSF lands through prescribed burning, timely timber stand thinning and removal of hardwood mid-story where applicable, creating and maintaining useful forest openings, planting longleaf pine on applicable sites and conducting final harvests as needed. Geneva State Forest is managed for natural regeneration of longleaf pine by using shelterwood harvest. The forest is managed on a 72-year rotation. Additional information is listed in the following sections.

The majority of work AFC personnel conduct is for private landowners. There are 9,021,520 acres of timberland within the GT's native range in Alabama. Of these timberland acres 96.5%, or 8,711,638 acres, are privately owned. AFC has foresters and rangers available to assist landowners in all 22 counties within the GT range. AFC provides GT habitat management recommendations to landowners during site visits, stand management recommendations, and in Stewardship management plans. Other forms of landowner assistance provided that are beneficial to GTs include invasive species control recommendations and prescribed burning. Private landowner accomplishment details

pertaining to GT management are listed in the following sections of this report and under AFC Appendices A through D.

# RELEVANT ACTIVITIES TO LISTING FACTOR A (THE PRESENT OR THREATENED DESTRUCTION, MODIFICATION, OR CURTAILMENT OF THE SPECIES HABITAT OR RANGE)

#### **ARMY**

- a) How much potential gopher tortoise habitat does the <u>signatory agency</u> <u>directly own or manage</u>?
- i) Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency

(put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2013	N/A	0	28,416 (unprotected)
2014	N/A	0	28,416 (unprotected)
2015	N/A	3377	140632

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.
  - i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

i abic 2.	Table 2. Bana management (nambers reflect acres of potential gopiler tortolise nablato)					
		*Total				Acres
		acres				managed
		restored or	Acres	Acres	Acres of	(e.g.,
		maintained	burned -	burned -	invasive	mechanical,
Report		as GT	growing	dormant	species	longleaf
year		habitat	season	season	treated	planting)
	Owned or		2,984	8,313		

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

2013	managed lands	13,196	(26%)	(74%)	0	1,899
	**Other lands					
2014	Owned or managed lands	9,426	1,826 (27%)	5,184 (73%)	0	2,416
	**Other lands					
	Owned or managed lands	54706	25577	23994	203	4932
2015	**Other lands	N/A	N/A	N/A	N/A	N/A

<sup>\*</sup> The Total acres restored or maintained as GT habitat should be the sum of the preceding 4 columns. \*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

#### **NAVY**

## a) How much potential gopher tortoise habitat does the <u>signatory agency</u> <u>directly own or manage</u>?

i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise) 12,140

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency

(put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009	N/A	N/A	12,140
2010	N/A	N/A	12,140
2011	N/A	N/A	12,140
2012	N/A	N/A	12,140
2013	N/A	N/A	12,140
2014	N/A	N/A	12,140
2015	N/A	N/A	12,357

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.
  - i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization. N/A

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year	J	*Total acres restored or maintained as GT habitat	Acres burned - growing season	Acres burned - dormant season		Acres managed (e.g., mechanical, longleaf planting)
2009	Owned or	1819	194	1,295	68	262
	managed lands	DT/A	DT/A	NT/A	NT/A	DT/A
	**Other lands	N/A	N/A	N/A	N/A	N/A
2010	Owned or managed lands	1501	180	1,108	63	150
	**Other lands	N/A	N/A	N/A	N/A	N/A
2011	Owned or managed lands	517	64	191	155	107
	**Other lands	N/A	N/A	N/A	N/A	N/A
2012	Owned or managed lands	463	7	65	262	129
	**Other lands	N/A	N/A	N/A	N/A	N/A
2013	Owned or managed lands	956	187	663	57	49
	**Other lands	N/A	N/A	N/A	N/A	N/A
2014	Owned or managed lands	2837	42	2,621	117	57
	**Other lands	N/A	N/A	N/A	N/A	N/A
2015	Owned or managed lands	1439	60	110	409	860
	**Other lands	N/A	N/A	N/A	N/A	N/A

<sup>\*</sup> The Total acres restored or maintained as GT habitat should be the sum of the 4 following columns.

<sup>\*\*</sup>Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

#### AIR FORCE

### a) How much potential gopher tortoise habitat does the <u>signatory agency</u> directly own or manage?

i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory

agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009	0	101	470,790
2010	0	101	457,915
2011	0	150	457,242
2012	0	189	456,683
2013	0	21,290	456,624
2014	0	22,996	456,615
2015	0	22,896	464,368

b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

**45th SW:** 7,753 acres previously not considered GT habitat were added back into the total potential habitat, as previous year treatments have been effective. During 2015, a total of 2,157 acres of existing potential GT habitat were maintained or improved with treatments, including 359 acres of prescribed burns; 1,240 acres treated for invasive species; and mechanical cutting of overgrown scrub habitat using a variety of methods including roller chopping, hydro ax, v-saw and tree cutter over 380 acres. Treatment of invasive species included using mechanical cutting and herbicide; monitoring; herbicide treatments in previously treated areas to prevent re-growth; and use of prescribed fire and trench burning material onsite. Removal of nuisance wildlife was accomplished.

**Avon Park AFR:** Prescribed fire was accomplished over 16,135 acres. Survey of gopher tortoise population in scrub habitat was completed. Removal of feral hogs was accomplished.

**Eglin AFB:** Management tools used on 101,679 acres in report year 2015 include prescribed fire on 92,700 acres; 1,200 acres of invasive species treatments; and 7,779

acres of treatments including chemical treatment of hardwood midstory, sandpine removal, and longleaf pine planting. Removal of nuisance wildlife, especially feral hogs, was accomplished.

MacDill AFB: During 2015, MacDill AFB ramped up their prescribed burn program by burning over 70 acres of pine flatwood community to improve habitat values and encourage the expansion of existing gopher tortoise colonies. Continued aggressive invasive species control program to improve habitat quality within existing gopher tortoise habitat and adjacent areas. Treated 2,300 acres to kill-in-place invasive species such as Brazilian pepper, Lead tree, and cogon grass. Mechanically removed Brazilian pepper from approximately 10 acres of gopher tortoise habitat. Following removal of the Brazilian pepper, the disturbed areas were replanted with native grass species.

**Moody AFB:** Active management for gopher tortoises continued in 2015, including prescribed burning on 927 acres; treatment for invasive species on 18 acres; and hardwood midstory control (chemical and mechanical) and restoration of longleaf pine on 50 acres.

**Tyndall AFB:** Active management included restoration to 8,496 acres of habitat through prescribed burning and 620 acres of invasive species treated.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
	Owned or managed lands	21,946	9,570 (66%)	4,946 (34%)	7,430	unknown
2009	**Other lands					
	Owned or managed lands	147,466	34,946 (26%)	100,346 (74%)	2,506	9,668
2010	**Other lands					
	Owned or managed lands	114,762	31,151 (31%)	68,124 (69%)	1,064	14,423
2011	**Other lands				10	
	Owned or managed lands	127,353	35,699 (32%)	76,703 (68%)	3,400	11,551
2012	**Other lands					
	Owned or managed lands	131,377	53,234 (46%)	63,386 (54%)	3,578	11,179
2013	**Other lands					
2014	Owned or managed lands	129,286	39,183(34%)	75,559 (66%)	3,076	11,468

	**Other lands					
2015	Owned or managed lands	128,467	59,664 (50%)	58,583 (50%)	5,378	8,269
	**Other lands					

<sup>\*</sup> The Total acres restored or maintained as GT habitat should be the sum of the preceding 4 columns.

#### **MARINES**

No report received.

#### USFS

- a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?
  - i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency

(put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009	60,000		
2010	60,000		
2011	60,000		
2012	221,448		
2013	221,448		
2014	221,448		
2015	221,448		

Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

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<sup>\*\*</sup>Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

Management activities conducted for the restoration and maintenance of native fire ecosystems that support gopher tortoise include: timber thinning in mature longleaf stands, timber harvest to restore native over-story species (longleaf), prescribed fire and associated activities (e.g., fire line maintenance), wildlife opening maintenance, some mid-story vegetation removal, road restoration activities, gopher tortoise surveys, chemical treatment and eradication of cogon grass, and native grass seed collection and propagation for future restoration needs.

i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

		*Total acres restored or	Acres	Acres burned -	Acres of	Acres managed (e.g.,
Report year		maintained as GT habitat	burned - growing season (%)	dormant season (%)	invasive species treated	mechanical, longleaf planting)
	Owned or managed lands					
2009	**Other lands					
	Owned or managed lands					
2010	**Other lands					
	Owned or managed lands					
2011	**Other lands					
	Owned or managed lands	35,721	30,354 (85%)	5,357 (15%)	60	?
2012	**Other lands					
	Owned or managed lands	76,776	48,851 (64%)	27,817 (36%)	173	?
2013	**Other lands					
	Owned or managed lands	103,809	38370 (46%)	45,433 (54%)	126	15,171
2014	**Other lands					
	Owned or managed lands	79,761	29,178 (46%)	34,893 (54%)	201	9,091
2015	**Other lands	1 071 1:	1 111 1	6.1	1: 4 1	

<sup>\*</sup> The Total acres restored or maintained as GT habitat should be the sum of the preceding 4 columns.

 $<sup>{\</sup>bf **Other\ gopher\ tortoise\ habitat/lands\ can\ include\ ANY\ lands\ regardless\ of\ ownership,\ protection\ level,\ or\ agreement.}$ 

#### **USFWS**

i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

EK – Egmont Key NWR totals 328 acres (fee title), but due to erosion, the island is estimated to be about 280 acres currently. The entire island is gopher tortoise habitat. An inholding within Egmont Key NWR of 6.54 acres is owned by Hillsborough County and leased to the Tampa Bay Pilots Association. This area is marked as private property with no public access. It is not under a gopher tortoise management plan, but the gopher tortoises are protected.

OK – The 800 acres owned and managed by Okefenokee NWR reported in the past has been reduced to 470 acres based on suitable soil types used to fine tune survey transect locations. The 1900 acres of refuge owned lands managed by Forest Investment Associates through a long-time lease agreement has been reduced to 982 acres based on the evaluation of soil types. This land is under intensive silvicultural timber production.

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory

agency (put n/a if not applicable)

agoney (	Jul III a II IIOL applicad	/	I
Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2014	116,266.2	6.5	1900
2015	AC-2000; EK-280; CH-40; EH-1500; HS-275; DD-37; LWR-1900; LW- 2400; LS-4855; MI- 88751; OK-470; PI- 433; SV-6116; SM- 10928	EK-7; EH-2500	OK-982
2015 (Total)	119,985	2507	982

- a) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.
  - i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

The PFW Program provided technical and financial assistance that resulted in 31 projects benefiting gopher tortoises on private lands. These include longleaf pine planting,

prescribed burning in existing longleaf stands, and invasive species control in longleaf habitat. Of the Florida accomplishments, 296 acres were in other habitats that benefit gopher tortoises, including scrub and hardwood hammocks.

- AC Invasive exotic species were surveyed and treated accordingly using chemicals. 140 acres received invasive species treatment on refuge and partner lands.
- CH Gopher tortoise habitat consists of approximately 40 acres of longleaf pine habitat that was last burned in 2010. This property was scheduled to be burned in 2015, but the conditions did not permit the burn. This property is now scheduled to be burned in 2016.
- EK Exotic plants are treated to restore the habitat. In 2015, approximately 3 acres of exotic Brazilian pepper and Australian pine were treated within 15 acres of habitat. Up to 65 additional acres are infested with Brazilian pepper and Australian pine on the island. Fire ants are also controlled within the private 6.54 acres of the Tampa Bay Pilots Association property and within the old USCG property at the north end of the island where the Florida Park Service manager lives (FPS cooperatively manages the island with the Service).
- EH In 2015, about 1,500 acres were acquired in fee title and 2,500 acres in easements. Although no GT surveys or prescribed fires were conducted, about 1,200 acres were treated for invasive exotic plants.
- HS Exotic plants were treated on 100 acres of scrub habitat. Control efforts took place on refuge lands. Species controlled included Brazilian pepper, Australian pine, beach naupaka, rosary pea, Old-world climbing fern and all Type I and II Florida Exotic Pest Plant Council Exotic pant species. Controlled sea turtle nest predators including coyote across 735 acre Jupiter island tract assumed ancillary benefits to coastal dune gopher tortoise population. A prescribed fire was conducted on 8 acres of sand pine scrub habitat.
- DD Habitat management actions included: treatment of all non-native invasive plant species, mowing and maintaining fire breaks, and prescribed fire.
- LWR Invasive exotic plants were treated on 491 acres in early 2015 through the State's grant program for invasive species. A prescribed fire was conducted by refuge staff on 350 acres in May.
- OK All acres were surveyed for gopher tortoise activity by GADNR. Lands adjacent to refuge owned lands that are owned by The Conservation Fund and managed by Forest Investment Associates were also surveyed. The population is estimated to be over 1500 tortoises with densities ranging from 1.36 tortoises per hectare to 2.2 tortoises per hectare. An estimated 50 acres of Forest Investment Associates managed land were site prepped and planted with slash pine.
- PI Invasive exotic species were surveyed and treated accordingly using chemicals. Approximately 140 acres received invasive plant species treatment on the Refuge.
- SV All known occupied gopher tortoise habitat as well as adjacent potential gopher tortoise habitat was managed with prescribed growing (lightning) season fire in July 2015

(1,775 acres). Three managed public hunts, predator control by staff, and continued partnership with the USDA Wildlife Services resulted in significant reductions of predators of gopher tortoise eggs.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat). PFW=Partners for Fish and Wildlife Program.

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
	Owned or managed lands	16,378.2	6,073	4,274	515	330
2014	**Other lands	PFW – 2,738 Egmont-6.5	PFW(AL)- 592 PFW(FL)- 509	PFW(AL)- 186	PFW(FL)- 175	PFW(AL)311 PFW(GA)818 PFW(FL)147
2015	Owned or managed lands	AC-350; EK- 15; CH-40; EH-1200; DD-37; LWR- 841; LW-388; LS- 4855; MI- 12644; OK- 470; SV-5595; SM-6815	LWR- 350; LS- 2235; MI- 8; SV- 5592; SM-3196	LW-100; LS-1789; MI-92; SM-3469	AC-114; EK-15; EH-1200; LWR- 491; LW- 2; LS-40; MI-38; PI-140; SV-3	EK-5; LS- 310; SM-150 PFW:
	**Other lands	PFW-1137; EK-7	PFW: 562(AL)	PFW: 157(AL)	5(FL); EK-7	25(AL); 388(GA)
2015	Owned or managed lands	33,250	11,381	5,450	2,043	465
(Total)	**Other lands	1144	562	157	12	413

<sup>\*</sup> The *Total acres restored or maintained as GT habitat* should be the sum of the preceding 4 columns.

 $<sup>\</sup>hbox{$\star$O$ther gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.}$ 

#### ALABAMA DNR

## a) How much potential gopher tortoise habitat does the <u>signatory agency</u> <u>directly own or manage</u>?

i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory

agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009			
2010			
2011			
2012			
2013			
2014			
FY15	19603		5050

# b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

Management activities conducted during FY15 include:

- Barbour WMA conducted 950 acres growing season burns, 1200 acres dormant season burns, treated 50 acres of invasive plant species and clear cut 300 acres.
- Geneva WMA conducted 540 acres growing season burns, treated 1 acre of invasive plant species and site prepped 15 acres.
- Upper Delta WMA conducted 100 acres growing season burns, treated 15 acres of invasive plant species, established 400 acres of native warm season grasses and planted 450 acres of longleaf pine.
- Fred T. Stimpson Sanctuary conducted 578 acres growing season burns, and treated 8 acres of invasive plant species.
- Upper State Sanctuary treated 10 acres of invasive plant species.
- Jacinto Port treated 30 acres of invasive plant species, planted 200 acres of longleaf pine and established 250 acres of native warm season grasses.

• Perdido River WMA - conducted 220 acres dormant season burns, treated 30 acres of invasive plant species, site prepped 892 acres, and planted 837 acres of longleaf pine.

DWFF was awarded a Completive State Wildlife Grant title Sandhills/Longleaf Pine Ecosystem Restoration, Phase 3 by the USFWS during this reporting period. This grant is a multi-state (6 states) effort to enhance gopher tortoise habitat across the tortoise range. The Alabama portion of this grant will restore ~400 acres of longleaf pine at Geneva WMA.

i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

		*Total		8.1		Acres
		acres		Acres		managed
		restored or	Acres	burned -	Acres of	(e.g.,
		maintained	burned -	dormant	invasive	mechanical,
$\operatorname{Report}$		as GT	growing	season	species	longleaf
year		habitat	season (%)	(%)	treated	planting)
	Owned or managed lands	280	9,050	23%	77%	3,000
2009	**Other lands					
	Owned or managed lands	1,056				
2010	**Other lands	1,206				
	Owned or managed lands	820	3,249		100%	94
2011	**Other lands	830				
	Owned or managed lands		600		100%	
2012	**Other lands					
	Owned or managed lands		1,000		100%	
2013	**Other lands					
	Owned or			3350 ac -		3626 ac –
	managed lands	8263ac	323 - 4%	41%	98 ac -2%	44%
			512ac -	1530 ac -		
2014	**Other lands	8413 ac	6%	19%	32 ac -1%	200  ac - 3%
	Owned or managed lands	4667	2168	1200	84	1215
FY15	**Other lands	4465	0	220	60	4185

<sup>\*</sup> The Total acres restored or maintained as GT habitat should be the sum of the preceding 4 columns.

<sup>\*\*</sup>Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

#### **FLORIDA**

- a) The potential gopher tortoise habitat shapefile, created by FWC's Fish and Wildlife Research Institute, was used to gather data on where potential gopher tortoise habitat occurs on FWC-managed lands. For the current reporting year (FY15), acres reported in the following table represent the current cumulative total acreage of potential gopher tortoise habitat in each category.
  - i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency

(put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009	n/a	n/a	n/a
2010	n/a	n/a	n/a
2011	104,485	n/a	n/a
2012	150,872	n/a	n/a
2013	143,784	8,740	257
2014	145,931	n/a	n/a
2015	177,533	9,944	219

b) The FWC and other state agencies have completed prescribed burns and exotic species removal across the state. The FWC Land Management Information System (LMIS) that was queried to gather data on lands by individual activities i.e. prescribed burns, mechanical treatments, and invasive control treatments. The totals below for other lands reflect information reported from the Florida Forest Service, Florida Parks Service, The Nature Conservancy, and FWC's Landowner Assistance Program (LAP). For FY15, the acres reported includes LAP acres managed for the purposes of Conservation, Wildlife, and Forestry (4,169 acres), and FWC's Gopher Tortoise Habitat Assistance Program (GTHAP) 742 acres, which also specified the type of land management activity. The data in table 2 show estimates of the dormant season from October through March and growing season from April through September. For FY 15, the total acres burned for owned (or managed) lands was 108,847 and the total acres burned for other lands was 50,272 acres. Included with the acres burned on "other

lands" is gopher tortoise habitat acres burned by TNC (34,358) using the annual contribution from Mosaic Fertilizer as part of the 30-year Memorandum of Agreement between FWC and Mosaic.

i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat).

		*Total				Acres
		acres		Acres		managed
		restored or	Acres	burned -	Acres of	(e.g.,
		maintained	burned -	dormant	invasive	mechanical,
Report		as GT	growing	season	species	longleaf
year		habitat	season (%)	(%)	treated	planting)
	Owned or					
	managed lands	6,104	1,461	4,643		
2009	**Other lands	52	n/a	n/a	n/a	n/a
	Owned or					
	managed lands	25,389	15,162	12,426	1,847	
2010	**Other lands	72,318	n/a	41,221	31,097	
	Owned or					
	managed lands	62,327	11,479	10,042	382	
2011	**Other lands	60,031	41,421	18,610	n/a	n/a
	Owned or					
	managed lands	60,322	27,264	15,682	6,880	
2012	**Other lands	63,580	36,241	27,339	n/a	n/a
	Owned or					
	managed lands	304,423	138,345	166,078		
2013	**Other lands	83,918	35,377	47,793	513	
	Owned or					
	managed lands	67,485	15,356	16,809	23,452	11,868
2014	**Other lands	32,929	169		136	722
	Owned or		48,985	59,862		
	managed lands	210,877	(45%)	(55%)	64,137	37,893
			29,149	21,123		
2015	**Other lands	53,251	(58%)	(42%)	495	2,484

<sup>\*</sup> The Total acres restored or maintained as GT habitat should be the sum of the preceding 4 columns.

<sup>\*\*</sup>Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

#### GEORGIA DNR

- a) How much potential gopher tortoise habitat does the <u>signatory agency</u> <u>directly own or manage</u>?
  - i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory

agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009	30,889	n/a	n/a
2010	31,692	n/a	n/a
2011	31,716	n/a	n/a
2012	31,716	n/a	n/a
2013	32,840	n/a	n/a
2014	39,641	n/a	n/a
2015	40,525	n/a	n/a

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes. Invasive species chemically-treated this period included sand pine, Japanese climbing fern, Chinese privet, chinaberry, sticky nightshade, mimosa, and showy rattlebox. In addition to treatment of invasives and burning, management this period included removal of off-site pines through thinning and clearcutting, mechanical and chemical treatment of hardwoods, and replanting longleaf pine and native warm-season grasses.
  - i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

10010 1	Lana Management	(1101112010101011	see deres of po	contract gopin	01 00100100 11	Acres
		Total acres		Acres		managed
		restored or	Acres	burned -	Acres of	(e.g.,
		maintained	burned -	dormant	invasive	mechanical,
Report		as GT	growing	season	species	longleaf
year		habitat	season (%)	(%)	treated	planting)
	Owned or			17,865		<u> </u>
	managed lands	22,899	305 (5%)	(95%)	758	3,971
2009	Other lands	0	0	0	0	0
2009	Owned or	U	U	14,326	U	0
	managed lands	19,622	1,360 (9%)	(91%)	10	3,926
	manageu ianus	19,022	1,300 (370)	10,210	10	5,920
				(seasons		
				not		
2010	Other lands	10,690	?	reported)	0	480
2010	Owned or	10,030	1,830	15,487	U	400
	managed lands	19,644	(11%)	(89%)	417	1,910
<u> </u>	manageu ianus	10,044	(11/0)	3,333	411	1,010
				(seasons		
				not		
2011	Other lands	3,862	?	reported)	379	150
2011	Owned or	5,002	3,543	11,315	0.10	100
	managed lands	18,005	(24%)	(76%)	300	2,847
	managea lanas	10,000	(=1/0)	5,776	300	2,011
				(seasons		
				not		
2012	Other lands	6,291	?	reported)	30	485
	Owned or	- / -	3,189	15,601		
	managed lands	21,781	(17%)	(83%)	2,211	780
	Ö	,	4,026	3,314	,	
2013	Other lands	7,427	(55%)	(45%)	0	87
	Owned or	·	8,343	16,048		
	managed lands	32,714	(34%)	(66%)	1003	7320
	~	·	, ,	1298		
2014	Other lands	$2{,}127$	829 (39%)	(61%)	0	0
	Owned or	·		13459		
	managed lands	26162	5725 (30%)	(70%)	815	6163
2015	Other lands					
	o their rands			1250		
		3752	2502 (67%)	(33%)	0	0
70/TE: 0 1				· · · · · · ·	-	

**NOTE:** Our burn data do not break down acreages by habitat. As a result, the burn acreages given here unfortunately over-estimate tortoise habitat burned by including all habitats within burn units. However, all burn units used in these calculations contain tortoise habitat.

#### SOUTH CAROLINA

- How much potential gopher tortoise habitat does the signatory agency a) directly own or manage?
  - i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency

(put n/a	if not	applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009			
2010			
2011			
2012	3059		
2013	3124		
2014	3124		

Provide a short narrative regarding the type of management activities that **b**) were completed on the signatory's lands or other lands during the year, including any challenges or successes.

Management activities conducted at TSRHP included controlled burns on approximately 350 acres of uplands during the growing season. Management activities at AGTHP included controlled burns of approximately 613 acres between January and March 2015. Additional activities at AGTHP included, mechanical thinning of approximately 100 acres from 60-70 BA to 30 BA, mechanical thinning of approximately 200 acres from 100-120 BA to 60 BA, and 98 acres treated with Velpar for longleaf planting.

i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

> TSRHP -1437 acres AGTHP -1687 acres Total= 3124 acres

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Table 2.	Land Management	(numbers reflect	acres of potential	l gopher tortoise habitat)
_ c.o		(11011112012	acres or poterrura	gopilor cortored masters,

Report year	G	*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
	Owned or managed lands					
2009	**Other lands					
	Owned or managed lands					
2010	**Other lands					
	Owned or managed lands	3059	337	476		245
2012	**Other lands					
	Owned or managed lands	3124	93	487		
2013	**Other lands					
	Owned or managed lands	3124	0	395		
2014	**Other lands					
	Owned or managed lands	3124	350	613		300
2015	**Other lands					

<sup>\*</sup> The Total acres restored or maintained as GT habitat should be the sum of the preceding 4 columns.

#### GEORGIA DOT

a) Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2013	1492* acres	0 acres	55* acres
2014	1492** acres	0 acres	55 acres
2015	1492 acres	0 acres	55 acres

<sup>\*\*</sup>Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

# b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

GDOT's goal is to avoid gopher tortoises and their burrows whenever possible during proposed transportation projects. If no reasonable alternative exists, our team of ecologists works with project designers to minimize potential impacts and mitigate appropriately through special construction provisions.

Additionally, GDOT coordinates with GA Department of Natural Resources (GADNR) for management of property containing gopher tortoise habitat. Land management efforts include prescribed burns, treatment of invasive species and longleaf planting on sandhill sites.

i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2013	Owned or managed lands	Unknown	Unknown	Unknown	Unknown	None
	**Other lands	Unknown	Unknown	Unknown	Unknown	None
2014	Owned or managed lands	750 acres	200 acres (27%)	550 acres (73%)	700 acres	None
	**Other lands	None	None	None	None	None
2015	Owned or managed lands	700 acres	500 acres (71%)	200 acres (29%)	Unknown	180 acres
	**Other lands	None	None	None	None	None

<sup>\*</sup> The Total acres restored or maintained as GT habitat should be the sum of the preceding 4 columns.

**NOTE:** Our burn data do not break down acreages by habitat. As a result, the burn acreages given here unfortunately over-estimate tortoise habitat burned by including all habitats within burn units. However, all burn units used in these calculations contain tortoise habitat.

<sup>\*</sup> The 2013 GTCCA Report incorrectly states 270 acres of Protected Public Lands and 14 acres of other lands owned or managed by the agency. These numbers have been updated appropriately.

<sup>\*\*</sup> The GTCCA Report incorrectly states 1516 acres of Protected Public Lands but this number has been updated appropriately.

<sup>\*\*</sup>Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

#### POARCH BAND OF CREEK INDIANS

No report received.

#### **AMERICAN FOREST FOUNDATION**

No report received.

#### LONGLEAF ALLIANCE

- a) How much potential gopher tortoise habitat does the <u>signatory agency</u> <u>directly own or manage</u>?
  - i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

The Longleaf Alliance does not directly own land, but staff does manage gopher tortoise habitat directly in each of the 3 Longleaf LITs we lead. The majority of this work occurs in the Gulf Coastal Plain Ecosystem Partnership, whose 12 current public and private partners collectively manage over 1,050,000 acres of western Florida and southern Alabama conservation lands.

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009	N/A	N/A	N/A
2010	N/A	N/A	N/A
2011	N/A	N/A	N/A
2012	N/A	N/A	N/A
2013	N/A	N/A	N/A
2014	N/A	N/A	N/A
2015	N/A	N/A	1,050,000

a) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

The majority of these treated acres are within the GCPEP landscape of NW FL and up into south AL, around Conecuh National Forest. Partner lands include, Eglin AFB, Conecuh NF, FL State Parks, The Nature Conservancy, The Navy, NW FL Water Management District, Gulf Islands national Seashore, The US Navy, and FL Fish and Wildlife Commission.

Total acres=51849 Acres of all mechanical, invasive, and fire treatments performed by the EST

Growing season acres= 23,375 Acres form Mid March to October 1

Dormant season acres= 22.812 Acres from Jan 1 to Mid March and Oct 1 to Dec 31 Acres of invasives controlled= 62

Acres of mechanical= 1,599 includes only acres of mechanical removal by the EST, does not include acres planted by our partners.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
	Owned or managed lands					
2014	**Other lands	62,071	20,232 (33%)	41,839 (67%)	55	11,313
2015	Owned or managed lands					
	**Other lands	51,849	23,375 (51%)	22,812 (49%)	62	1,599

#### **JONES CENTER**

- b) How much potential gopher tortoise habitat does the <u>signatory agency</u> directly own or manage?
  - ii. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency

(put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009	N/A	16,976 ac (6870 ha)	N/A
2010	N/A	16,976 ac (6870 ha)	N/A
2011	N/A	16,976 ac (6870 ha)	N/A
2012	N/A	16,976 ac (6870 ha)	N/A
2013	N/A	16,976 ac (6870 ha)	N/A
2014	N/A	16,976 ac (6870 ha)	N/A
2015	N/A	16,976 ac (6870 ha)	N/A

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.
  - i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Nearly 13,000 ac (5224 ha) of suitable gopher tortoise habitat was burned by prescription in 2015. Hardwoods were mechanically removed from approximately 64 ac (25 ha) of uplands to allow reintroduction of prescribed fire.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

	zana management	*Total		g-F		Acres
		acres		Acres		managed
		restored or	Acres	burned -	Acres of	(e.g.,
		maintained	burned -	dormant	invasive	mechanical,
Report		as GT	growing	season	species	longleaf
year		habitat	season (%)	(%)	treated	planting)
	Owned or managed lands	11,991 ac	3964.1 ac (33.2%)	7976.2 ac (66.8%)	N/A	51 ac
			N/A	N/A	N/A	N/A
2012	**Other lands					
	Owned or managed lands	13,125 ac	3441.9 ac (26.3%)	9645.1 ac (73.7%)	N/A	38 ac
2013	**Other lands		N/A	N/A	N/A	N/A

	Owned or managed lands	12,425 ac	786 ac (6%)	11,579 ac (94%)	N/A	60 ac
	**Other lands		N/A	N/A	N/A	N/A
	Owned or		2528.7	10382.0		63.6
	managed lands	12,974.4 ac	(19.6%)	(80.4%)	N/A	
						N/A
2014	**Other lands	N/A	N/A	N/A	N/A	

The *Total acres restored or maintained as GT habitat* should be the sum of the preceding 4 columns. \*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

Note: Growing season burns occurred from May-September; dormant season burns occurred from January-April.

#### ALABAMA FORESTRY COMMISSION

- a) How much potential gopher tortoise habitat does the <u>signatory agency</u> <u>directly own or manage</u>?
  - i. AFC actively manages a total of 9,363 acres of state forest land. Geneva State Forest is 7,200 acres. Little River State Forest is 2,163 acres. There are 741 acres of state forest land that are managed less intensively.

Alabama State Forests within the Gopher Tortoises Range

State Forest	Acres
Geneva State Forest	7,200
Little River State Forest	2,163
Hauss State Forest	319
Baldwin State Forest	238
Panther Creek State Forest	83
Crawford State Forest	80
George Washington State Forest	20
Fountain State Forest	1.4
	10,104

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put N/A if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2014	9,363	N/A	741
2015	9,363	N/A	741

b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

- Geneva State Forest: On Geneva State Forest AFC personnel prescribe burned 600 acres during the growing season and installed or refreshed 30 miles of fire lanes. A half-acre of Cogongrass was treated and eradicated. Fifteen acres were site prepared and planted in longleaf pine in December 2015. Gopher tortoise burrows were marked on 30 acres of wildlife openings that were sown as food plots. In cooperation with Alabama Department of Conservation and Natural Resources a four-acre gopher tortoise translocation enclosure was constructed. The landowner that needed to move the tortoises paid to have the enclosure constructed. Eight GTs were translocated to the enclosure during this reporting period. The enclosure is monitored weekly. Two landowner tours focusing on gopher tortoise habitat management were conducted, the first had 35 attendees and the second had 23 attendees.
- Little River State Forest: On Little River State Forest AFC personnel installed and/or refreshed seven and a half miles of fire lanes and prescribe burned 60 acres of understory during the dormant season. One hundred and ten acres were prescribe burned for site preparation and those acres were planted back in longleaf pine. Herbicide treatment was applied to 110 spots of Cogongrass in fall of 2014. The spots averaged a tenth acre for a total of 11 acres. Seven more Cogongrass spots were treated in fall of 2015 and that acreage will be included on next year's report. AFC and the Monroe County Forestry Planning Committee held a prescribed burning seminar and hosted a Boy Scout merit badge course in wildlife during the reporting period. The seminar had 12 attendees and the Boy Scout course had 148 attendees.
- **Private Landowner Report:** As stated in Section I, the majority of the work that AFC conducts is for private landowners. It is important to capture and convey the accomplishments that are being achieved on private lands because historically this information has not been very well reported. Not all of the accomplishments completed on private lands were aimed directly at GT habitat management, however indirectly they could improve the habitat for the tortoise. During the reporting period, AFC personnel conducted 226 prescribed burns for a total of 14,353.6 acres. This acreage includes dormant and growing season understory burns and site preparation burns. AFC personnel wrote up a variety of stand management recommendations (SMRs) for landowners, these include recommendations on thinning, harvesting, planting pines, prescribed burning, and timber stand improvement. AFC also performs compliance/practice checks for cost share and financial assistance programs such as the Conservation Reserve Program and Environmental Quality Incentives Program. The combined total acreage of land that AFC either performed compliance/practice checks on or wrote SMRs for was 42,528.9 acres. See Appendix B for specific break downs by county. Invasive species detection, control recommendations, and control verification are also provided to landowners. AFC detected, made control recommendations, and verified eradication of invasive species on 3,139.1 acres.

Table 2.	Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)					
		*Total acres		Acres		Acres
		restored or	Acres	burned -	Acres of	managed
		maintained	burned -	dormant	invasive	(Mech.
Report		as GT	growing	season	species	LLP
year		habitat	season (%)	(%)	treated	planting)
	Owned or					
2014	managed lands					
	**Other lands					
			600 - 89%			
201	Owned or		110 - site		Cogongrass	
2015	managed lands	781.5	prep	60 - 11%	11.5 ac.	110
	**Other lands	15,651.51**	N/A	14353.61	372.2	925.7

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

#### LAND CONSERVATION

#### **ARMY**

i. Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2013	N/A	0	N/A	N/A
2014	N/A	0	N/A	N/A
2015	0	333	48.22	0

ii. Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

Table 4. Acres of land/gopher tortoise habitat lost that is under the direct ownership of the

<sup>\*</sup> The Total acres restored or maintained as GT habitat should be the sum of the preceding 4 columns.

<sup>\*\*</sup>Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement. For AFC purposes these cells will reflect AFC conducted prescribed burning, total acres of invasive species <u>verified</u> treated, and acres of LLP <u>verified</u> planted on private lands within the gopher tortoises range; gopher tortoises may or may not have been present on all private lands.

#### Signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2013	65	Range and training site development	Permanent
2014	0	N/A	N/A
2015	14.5	Military Training Readiness	11 Acres Permanent 3.5 acres Temporary

# NAVY

i. Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat. N/A

Table 3. New acres of potential gopher tortoise habitat protected. N/A

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2009			N/A	
2010			N/A	
2011			N/A	
2012			N/A	
2013			N/A	
2014			N/A	
2015			N/A	

ii. Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

Table 4. Acres of land/ gopher tortoise habitat lost that is <u>under the direct ownership of the signatory agency</u>. N/A

Report year	Acres lost	Cause	Permanent or Temporary
2009	N/A	N/A	N/A
2010	N/A	N/A	N/A
2011	N/A	N/A	N/A
2012	N/A	N/A	N/A
2013	N/A	N/A	N/A
2014	N/A	N/A	N/A
2015	435	Solar panel projects at NSB King's Bay and NAS Whiting Field (NOLF Holley).	Permanent

# AIR FORCE

i. Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2009	0	101	0	0
2010	0	0	0	0
2011	0	50	0	0
2012	0	39	0	0
2013	0	21,000	0	100
2014	0	1,706	0	0
2015	0	0	0	0

Table 4. Acres of land/ gopher tortoise habitat lost that is <u>under the direct ownership of the Signatory agency</u>.

$\operatorname{Report}$	Acres lost	Cause	Permanent or
year	Acres lost	Cause	Temporary
2009	610	Construction	Permanent
2010	448	Construction; Airfield Clear Zone	334 permanent 114 temporary
2011	673	Construction	Permanent
2012	634	Construction; Airfield Clear Zone	559 permanent 75 temporary
2013	110	Construction; Airfield Clear Zone	59 permanent 51 temporary
2014	59	Construction; Airfield Clear Zone	54 acres Permanent 5 acres Temporary
2015	37	Construction of mission essential infrastructure; construction of percolation ponds; Mission Activity.	22 ac permanent, 15 ac temporary

# **MARINES**

No report received.

## <u>USFS</u>

i. Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2009				
2010				
2011				
2012				

2013	0	0	0	0
2014	0	0	0	0
2015	0	0	0	0

Table 4. Acres of land/ gopher tortoise habitat lost that is <u>under the direct ownership of the signatory agency</u>.

Report year	Acres lost	Cause	Permanent or Temporary
2009	unknown		
2010	unknown		
2011	unknown		
2012	unknown		
2013	unknown		
2014	unknown		
2015	unknown		

# **USFWS**

i. Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2014	0.7 (Ding Darling NWR)			

2015	EH-500; DD-2; LS-100	EH-500	
2015 (Total)	602	500	

EK - Suffered severe erosion along the west beach due to tropical storms, high winds, shipping traffic, and sea level rise. The island was 328 acres (fee title), but now may only be 280 acres. A beach re-nourishment project deposited approximately 450,000 cubic yards of sand from November 2014-March 2015.

Table 4. Acres of land/ gopher tortoise habitat lost that is <u>under the direct ownership of the signatory agency</u>.

Report year	Acres lost	Cause	Permanent or Temporary
2014	1,744 ac (St. Marks NWR)	No physical acres of habitat were lost. This is an adjustment to previously reported numbers.	Permanent
2015	OK-50	Timber lease held by FIA – cleared and planted in slash pine	Temporary

#### **ALABAMA**

i. Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

DWFF acquired fee simple ownership of 5725 acres adjacent to the Geneva WMA (3629 acres acquired in 2014), all of this being adjacent to Geneva State Forest (Alabama Forestry Commission ~7500 acres) in Covington County during this reporting period.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	other lands protected by short-term easement, MOU, or similar	
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2011			1257
2012			852
2013			382
2014	3629		1001
FY15	5725		Unable to provide acres at this time.

Unknown

Table 4. Acres of land/ gopher tortoise habitat lost that is <u>under the direct ownership of the signatory agency</u>.

Report year	Acres lost	Cause	Permanent or Temporary
2009			
2010			
2011			
2012			
2013			
2014	No acres lost during this reporting period.		
FY15	No acres lost during this reporting period.		

#### **FLORIDA**

i) Two new land parcels were acquired by FWC through Florida Forever. Of the two, a portion of one land purchase intersects with polygons from the gopher tortoise potential habitat shapefile. Fred C. Babcock Cecil M. Webb WMA was acquired during the report timeframe and includes 52.49 acres of gopher tortoise habitat. Newly permitted recipient sites (private) under perpetual conservation easement

included 2,745 acres of gopher tortoise potential habitat. There were no new lands protected by short-term easement, MOU, or similar, within the reporting timeframe.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short- term easement, MOU, or similar
2009	n/a	719	n/a	n/a
2010	n/a	1,214	n/a	n/a
2011	n/a	1,115	n/a	n/a
2012	n/a	1,789	n/a	n/a
2013	n/a	5,595	20,800	1,631
2014	n/a	3,370	n/a	n/a
2015	52	2,745	n/a	n/a

ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary).

Table 4. Acres of land/ gopher tortoise habitat lost that is <u>under the direct ownership of the signatory agency</u>.

Report year	Acres lost	Cause	Permanent or Temporary
2009	Unknown		
2010	Unknown		
2011	Unknown		
2012	Unknown		
2013	Unknown		
2014	Unknown		
2015	82.7	FWC is developing a public shooting park and hunter education center at Triple N Ranch Wildlife Management Area, resulting in a loss of gopher tortoise habitat	Permanent

## GEORGIA DNR

i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Through the approval of eight conservation easements by the Georgia Conservation Tax Credit Program and the acquisition of Altama Plantation, GA DNR-WRD protected 1725 new acres of tortoise habitat during the reporting period.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2009	600	3172	n/a	0
2010	803	4756	n/a	0
2011	24	1662	n/a	0
2012	0	2507	n/a	0
2013	865	5944	n/a	0
2014	4152	1480	n/a	0
2015	884	841	n/a	0

ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

Table 4. Acres of land/ gopher tortoise habitat lost that is <u>under the direct ownership of the signatory agency</u>.

Report year	Acres lost	Cause	Permanent or Temporary
2009	None		
2010	None		
2011	None		

2012	None	
2013	None	
2014	None	
2015	None	

## SOUTH CAROLINA

i. Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat. **None to report.** 

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2009				
2010				
2011				
2012				
2013				
2014				
2015				

ii. Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

Table 4. Acres of land/ gopher tortoise habitat lost that is <u>under the direct ownership of the signatory agency</u>.

Report year	Acres lost	Cause	Permanent or Temporary
2009			

2010		
2011		
2012		
2013		
2014	0	
2015		

## **GA DOT**

i. Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2013	None	None	None	None
2014	None	None	None	None
2015	None	None	None	None

ii. Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

Table 4. Acres of land/ gopher tortoise habitat lost that is <u>under the direct ownership of the signatory agency</u>.

Report year	Acres lost	Cause	Permanent or Temporary
2013	None	None	None
2014	None	None	None
2015	None	None	None

# POARCH BAND OF CREEK INDIANS

No report received.

#### AMERICAN FOREST FOUNDATION (AFF)

No report received.

## **LONGLEAF ALLIANCE**

Nothing to report

### **JONES CENTER**

i. Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat. N/A

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2009	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A
2012	N/A	N/A	N/A	N/A
2013	N/A	N/A	N/A	N/A
2014	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A

ii. Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown". **N/A** 

Table 4. Acres of land/ gopher tortoise habitat lost that is <u>under the direct ownership of the signatory agency.</u>

Report year	Acres lost	Cause	Permanent or Temporary
2009	N/A	N/A	N/A
2010	N/A	N/A	N/A
2011	N/A	N/A	N/A
2012	N/A	N/A	N/A
2013	N/A	N/A	N/A
2014	N/A	N/A	N/A
2015	0	N/A	N/A

#### ALABAMA FORESTRY COMMISSION

i. Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat. N/A

Table 3. New acres of potential gopher tortoise habitat protected N/A

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2014	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A

ii. Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

Table 4. Acres of land/ gopher tortoise habitat lost that is <u>under the direct ownership of the signatory agency.</u>

Report year	Acres lost	Cause	Permanent or Temporary	
2014	None	N/A	N/A	
2015	None	N/A	N/A	

# GOPHER TORTOISE POPULATION MONITORING

# **ARMY**

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used).

Report	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2013 Camp Blanding	Nov 2012	Griffis Loop	206	150	Initial survey	and Wildlife burrow count survey
2013	Apr-Jun	Benning	5,175	215	Baseline	
Ft. Benning	Aug-Oct	HMU3 Benning	10,983	707	Baseline	
		HMU2				
2013 Ft. Gordon	August 2013	Training Area 38 Mini-Mute Project Site	35	0	N/A	100% area search
2013 Ft. Rucker	No new survey since FY12					
2013 Ft. Stewart	09/11/2013	FS – Zone 1	1,941	1,390	Increase (+49)	
2014						
2015	2015	5 Army installations	10818	N/A due to request to combine totals for 5 installations	N/A due to request to combine totals for 5 installations	LTDS

# NAVY

Table 5. Population survey data (if survey methodology was not Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2009	All Year (ongoing at any or all of the five installations)	All Navy Installations, either in whole or part.	5500	428 (estimated from subsample)	Found 31 new burrows	100% survey method.
2010	All Year (ongoing at any or all of the five installations)	All Navy Installations, either in whole or part.	8400	512 (based on survey results)	Found 77 new burrows, Unable to scope sub adult and juvenile burrows	100% survey method; subsample burrow scoping.
2011	All Year (ongoing at any or all of the five installations)	All Navy Installations, either in whole or part.	8400	512 (no new info this year)	Burrow cameras purchased	Based on 2010 survey
2012	All Year (ongoing at any or all of the five installations)	All Navy Installations, either in whole or part.	8400	480 (burrow cameras used)	Monitoring and marking of GT burrows	100% survey method; subsample burrow scoping.
2013	All Year (ongoing at any or all of the five installations)	All Navy Installations, either in whole or part.	17,963 (included non- habitat areas; urban areas.)	500 (estimated slight increase from 2012)	Slight increase; camera scoping is beginning to validate prior year estimates	100% survey of all GT habitats discovered.
2014	All Year (ongoing at any or all of	All Navy Installations, either in whole or part.	5,532	500	Steady	100% monitoring of all GT

	the five installations)					habitats discovered.
2015	All Year (ongoing at any or all of the five	All Navy Installations, either in whole or part.	2398	590	Steady; Survey at NOLF Holley was in preparation for a solar farm project.	100% monitoring of all GT habitats discovered.

## **AIR FORCE**

**Eglin AFB:** Population monitoring documented new burrows in areas of existing tortoise populations and surveys were conducted in new areas where the status was previously unknown. All burrows located were mapped and data collected for each included status, and size.

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2015	Jan-Jun, 2015	APAFR scrub	2,493.0	1682	unknown	LTDS
2015	May-Sep, 2015	Eglin-various locations (FNAI survey/Legacy grant)	7,611.5	13	baseline	LTDS
2015	Jul-Nov, 2015	Eglin-Occupancy Survey-various locations (Virginia Tech)	1,253.0	NA- survey only to determine occupancy	NA	Area Constrained Total Transect
2015	Spr-Sum, 2015	Moody- Proposed NE Training Campus	120.0	35	Increase. Significant increase in juvenile burrows.	100% pedestrian survey. No scoping of burrows
2015	Sum, 2015	Tyndall AFB	160.0	194 active burrows	increasing, juveniles	LTDS

## **MARINES**

No report received.

# <u>USFS</u>

Table 5. Population survey data (if survey methodology was not Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2009						
2010						
2011						
2012						
2013						
2014	9/2014 9/2014	Munson East Munson West	1,457ha/ 3,600acres 6,688ha/ 16,527 acres	1.81 per ha or 2,638 .24 per ha or 1,613	First Year First Year	
2015	April-15	Ocala NF- Riverside Island	8,974.85	1,126	Baseline	LTDS

#### **USFWS**

Table 5. Population survey data (if survey methodology was not Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2014	Dec - Feb 2014	Ding Darling NWR	30.2	20	n/a	See above

2015	4/15-7/15	OK-Trail Ridge	2783	1500	

# **ALABAMA**

Table 5. Population survey data (if survey methodology was not Line Transect Distance Sampling, indicate what methodology was used)

Report	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2009						
2010						
2011						
2012	Aug-Oct	Wehle Center	724 ac	.02	Evidence of juveniles and eggs at burrow.	Field Reconnaissance
2013	Aug-Oct	Wehle Center	725 ac	.02	juvenile confirmed	Field Reconnaissance
2014	April, June, July, Sept-Oct	Geneva State Forest	5430 ac	.271		LTDS
2014	Aug-Oct	Wehle Center	724	.02	Evidence of juveniles and eggs at burrow.	Field Reconnaissance
2014	Aug-Oct	Wehle Center	725	.02	juvenile confirmed	Field Reconnaissance
FY15		Conecuh NF	2696	.15 GT/ha	Initial survey	
FY15	April, June, July, Sept-Oct	Geneva State Forest	5368	.27 GT/ha	Initial survey	
FY15		Perdido WMA	8155	.13 GT/ha	Initial survey	

## **FLORIDA**

Florida adopted and has implemented the range-wide population survey protocol as outlined in the GT CCA, Line Transect Distance Sampling (LTDS). Twenty gopher tortoise surveys were completed between October 1, 2014 and September 30, 2015 and included 95,550 acres (38,263 ha) of habitat. Three of these surveys were conducted by Florida Natural Areas Inventory and 17 by the Joseph W. Jones Ecological Research Center, all of which used LTDS.

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

		,			Trend	
Year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate (or density/ac)	(increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2009		n/a	n/a	n/a	n/a	
2010	PY 2009 - 2010 Apalachee Wildlife Management Area		400	1.16	n/a	Belt transect (burrow survey)
	FY 2009 -2010	Big Bend WMA (Spring Creek Unit)	350	0.31	n/a	Belt transect (burrow survey)
	FY 2009 - 2010	Y 2009 - 2010 Jennings State Forest WMA		400 (Total)	Increase from 2005	Belt transect (burrow survey)
	January-10	ry-10 Northwest Hackletrap (RS)		0.07	n/a	Belt transect (burrow survey)
	January-10	The Woods (RS)	75.25	0.03	n/a	Belt transect (burrow survey)
	June-10	June-10 Lake Louisa State Park (RS)		0.54	n/a	Belt transect (burrow survey)
	August-10	Allen Brossard Conservancy (RS)	40	0.2	n/a	Belt transect (burrow survey)
	July-10	Withlacoochee Bay Trail (Felburn Trailhead)	53	0.2	n/a	Belt transect (burrow survey)
	December-09	PSC Gopher Ranch Eight Mile Still Road (RS)	55.7	0.2	n/a	Belt transect (burrow survey)
	January-10	Chinquapin Farm (RS)	31.9	1.88	n/a	Belt transect (burrow survey)

	February-10	Hatchineha Ranch Cons Bank (RS)	17.6	0.9	n/a	Belt transect (burrow survey)
2011	May-11	Chassahowitzka WMA	1,636	0.24	n/a	Belt transect (burrow survey)
	April-11	Guana River WMA	402	0.18	n/a	Belt transect (burrow survey)
	July-11	Caravelle Ranch WMA	47	0.88	n/a	Belt transect (burrow survey)
	June-11	Aucilla WMA	280	0.023	n/a	Belt transect (burrow survey)
	December-10	Hickey Creek	80	1	n/a	Belt transect (burrow survey)
	June-11	North Buck Lake Sanctuary	49.06	1.72	n/a	Belt transect (burrow survey)
	Allen Broussard Conservancy (RS)		316.4			Belt transect (burrow survey)
		Nokuse Plantation (Black		0.22	n/a	Belt transect (burrow survey)
	February-11	ary-11 Creek Unit) (RS)		0.12	n/a	Belt transect (burrow
	February-11	Heritage Ranch (Unit 1) (RS)	8.95	1.34	n/a	survey)  Belt transect (burrow
	February-11	Heritage Ranch (Unit 2) (RS)	42.28	0.85	n/a	survey)  Belt transect (burrow
	February-11	Heritage Ranch (Unit 3) (RS)	29.26	0.34	n/a	survey)  Belt transect (burrow
	May-11	Charlotte County (Tippecanoe Unit 4) (RS)	28.4	1.28	n/a	survey)  Belt transect
	September-11	Adams Ranch (RS)	273.1	0.57	n/a	(burrow survey)
	May-11	Russakis Ranch (Phase 1) (RS)	221.56	0.15	n/a	Belt transect (burrow survey)
	June-11	Tiger Lake Wildlife Ranch (RS)	270.1	0.16	n/a	Belt transect (burrow survey)

	August-11	Nokuse Plantation (Magnolia Creek Sandhill) (RS)	250	0	n/a	Belt transect (burrow survey)
	October-10	Allapattah Flats Wildlife Management Area (RS)	16.36	0.24	n/a	Belt transect (burrow survey)
2012	June-12	Aucilla WMA	346.56	0.01	n/a	Belt transect (burrow survey)
	May-12	Blackwater WMA	3,000	0.04	n/a	Belt transect (burrow survey)
	May-12	Econfina Creek WMA	203	0.08	n/a	Belt transect (burrow survey)
	April-12	Jennings Stat Forest	5,820.3	0.36	n/a	Belt transect (burrow survey)
	July-12	Point Washington WMA	387.9	0.01	n/a	Belt transect (burrow survey)
	June-12	Pine Log WMA		0.03	n/a	Belt transect (burrow survey)
	August-12	Beville Ranch Phase 2 (RS)	125.3	0.18	n/a	Belt transect (burrow survey)
	January-12	Gator Hole preserve (RS)	20.85	0	n/a	Belt transect (burrow survey)
	November-11	Isle of Pine Preserve (RS)	7.05	1.49	n/a	Belt transect (burrow survey)
	April-12	Viera Wilderness Park Stage 1 (RS)	41.18	0.08	n/a	Belt transect (burrow survey)
	June-12	Camp La-No-Che Wildlife Cons Area (RS)	92	0.01	n/a	Belt transect (burrow survey)
	November-11	Bowman's Beach (RS)	62.89	0.52	n/a	Belt transect (burrow survey)
	January-12	Venus Ranch (RS)	200	0.08	n/a	Belt transect (burrow survey)
2013	FY 2012 - 2013	Ongoing Blackwater, Econfina, Pine Log and Point Washington WMAs	(Summa ry below in a)			Belt transect (burrow survey)

	November-12	Allen Broussard Conservancy Long-Term Protected Site	294.83	0.083	n/a	Belt transect (burrow survey)
	November-12	Allen Broussard Conservancy Phase II	344.28	0.101	n/a	Belt transect (burrow survey)
	November-12	Russakis Ranch Phase II	221.33	0.164	n/a	Belt transect (burrow survey)
	November-12	West Grasshopper Tract Unit 1	212.9	0.436	n/a	Belt transect (burrow survey)
	January-13	Russakis Investments Phase I	181.64	0.102	n/a	Belt transect (burrow survey)
	September-13	Dunns Creek State Park Recipient Site	52	0.545	n/a	Belt transect (burrow survey)
	September-13	Triple S Land Company Phase I	135.6	0.876	n/a	Belt transect (burrow survey)
	September-13 Triple S Land Company Phase		413.15	0.066	n/a	Belt transect (burrow survey)
2014	August – October 2014	Bell Ridge WEA		1,197	Baseline	LTDS
	August – October 2014	Ft. White WEA		974	Baseline	LTDS
	August – October 2014	Goldhead Branch SP		843	Baseline	LTDS
	August – October 2014	Ichetucknee Springs SP		1,269	Baseline	LTDS
	April-15	Cayo Costa State Park	404.02	343	Baseline	LTDS
2015	January-15	Edward Ball Wakulla Springs State Park	1,111.7 3	73	Baseline	LTDS
2010	December-14	Goethe SF Levy County- Main tract	4,724.6 5	2,039	Baseline	LTDS
	September-14	Goldhead Branch State Park	1,880.9 6	843	Baseline	LTDS

		1	1	ı	1
March-15	Guana River WMA	941.96	219	Baseline	LTDS
February-15	Hilochee WMA (non-Osprey unit)	1,291.1 2	176	Baseline	LTDS
October-14	Joe Budd WMA	638.03	66	Baseline	LTDS
March-15	Jonathan Dickinson State Park	2,794.0 2	870	Baseline	LTDS
August-15	Lake Louisa State Park	1,853.5 3	1,626	Baseline	LTDS
May-15	Lake Wales Ridge WEA Carter Creek	1766.80	243	Baseline	LTDS
March-15	Lake Wales Ridge WEA Silver Lake	454.67	296	Baseline	LTDS
October-14	Little Talbot Island State Park	402.29	754	Baseline	LTDS
March-15	Moody Branch WEA	448.50	478	Baseline	LTDS
November-14	O'Leno/River Rise State Park	1,147.0 6	1,011	Baseline	LTDS
February-15	Perry Oldenburg WEA	333.10	213	Baseline	LTDS
June-15	St. Sebastian River SP NE	2,817.0 0	977	Baseline	LTDS
October-14	Watermelon Pond WEA	329.64	184	Baseline	LTDS
July-15	Wingate Creek State Park	376.09	303	Baseline	LTDS
February-15	Withlacoochee SF Citrus	44,229	7,179	Baseline	LTDS
Summer 2016	Tall Timbers Research Station	559	42	Baseline	LTDS
Summer 2016	Dixie Plantation (by TTRS)	1,990	166	Baseline	LTDS
Summer 2016	Woodfield Springs (by TTRS)	2,132	231	Baseline	LTDS
Summer 2016	Merrily Plantation (by TTRS)	574	34	Baseline	LTDS
Summer 2016	Cherokee Plantation (by TTRS)	647	19	Baseline	LTDS
Summer 2016	El Destino Plantation (by TTRS)	1,525	373	Baseline	LTDS
	•	<u> </u>			

Summer 2016	Foshalee Plantation (by TTRS)	1,907	45	Baseline	LTDS
Summer 2016	Horseshoe Plantation (by TTRS)	3,422	469	Baseline	LTDS

# GEORGIA DNR

Table 5. Population survey data (if survey methodology was not Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2009		Various (12 sites)	7925	1933	n/a	
2010	No surveys					
2011	No completed surveys					
2012		Various (19 sites)	20930	7405	n/a	
2013		Various (16 sites)	15424	3468	n/a	
2014		Various (14 sites)	11335	3808	Increase at FLWSMA; n/a others	
2015	Winter 2014	Barrington Tract (Townsend WMA)	1072	356	Increase	
2015	Spring 2015	Beechwood	1875	179	n/a	
2015	Summer 2015	Brooks Co. (name withheld)	2901	1578	n/a	
2015	Summer 2015	Carlton Farms	796	223	n/a	
2015	Spring 2015	Elsoma	1442	344	n/a	
2015	Fall 2015	Ft. Benning ACUB Rovig	758	156	n/a	
2015	Fall 2015	Ft. Benning ACUB Greater Saunders	731	193	n/a	

2015	Fall 2014	General Coffee SP East	432	35	n/a	
2015	Summer 2015 SP	Kolomoki Mounds	237	110	n/a	
2015	Summer 2015	Longpine	2953	410	n/a	
2015	Summer 2015	Millpond	2871	676	n/a	
2015	Fall 2014	Ohoopee Dunes Covena Tract	89	15	n/a	
2015	Spring 2015	Okefenokee NWR	452	419	Increase	
2015	Summer 2015	ONWR FIA lease	983	576	n/a	
2015	Summer 2015	Okefenokee Trail Ridge TCF/FIA	1144	566	n/a	
2015	Summer 2015	Pebble Hill	1505	304	n/a	
2015	Summer 2015	Plum Creek – Clay Co.	84	35	n/a	
2015	Summer 2015	Plum Creek – Quitman Co.	425	104	n/a	
2015	Summer 2015	Plum Creek- Randolph Co.	378	16	n/a	
2015	Fall 2014	Sansavilla WMA	914	444	n/a	
2015	Spring 2015	Thomas Co. (name withheld)	3472	351	n/a	
2015	Summer 2015	Thomas Co. (name withheld)	2133	190	n/a	
2015	Fall 2014	Townsend WMA North Tract	1089	419	n/a	
2015	Summer 2015	Willow Oak	517	142	n/a	
2015	TOTAL	Various (24 sites)	29253	7841	(see individual sites above)	

# **SOUTH CAROLINA**

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used).

We performed a LDTS survey at TSRHP in November 2015, data has not been fully analyzed and will be reported in next year's report.

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2009						
2010						
2011						
2012						
2013	Not applicable or none during this period.					
2014	Not applicable or none during this period.					
2014	11/2015	TSRHP		Not available		

# **GA DOT**

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2013	*	GDOT Proposed Rights-of-Way	*	*	*	Presence/Absence

2014	*	GDOT Proposed	*	*	*	Presence/Absence
		Rights-of-Way				
2015	*	GDOT Proposed	*	*	*	Presence/Absence
		Rights-of-Way				

<sup>\*</sup> GDOT conducts numerous habitat and presence/absence surveys for gopher tortoise within proposed transportation project rights-of-way annually.

# POARCH BAND OF CREEK INDIANS

No report received.

# **AMERICAN FOREST FOUNDATION (AFF)**

No report received.

## **LONGLEAF ALLIANCE**

N/A

## **JONES CENTER**

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2009						
2010						
2011	Fall	Ichauway	16,976 ac (6870 ha)		4880 (±708; 14.5% CV)	
2012	N/A	N/A	N/A	N/A	N/A	
2013	N/A	N/A	N/A	N/A	N/A	
2014	N/A	N/A	N/A	N/A	N/A	
2015	N/A	N/A	N/A	N/A	N/A	

#### ALABAMA FORESTRY COMMISSION

#### d) Gopher tortoise population monitoring

It would be advantageous if a survey were performed on Little River State Forest. AFC personnel that work there regularly report seeing several tortoises and burrows.

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used).

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2014	April, June, July, Sept Oct.	Geneva State Forest	5430 ac.	.271	N/A	LTDS
2015	N/A	N/A	N/A	N/A	N/A	N/A

# RELEVANT ACTIVITIES TO LISTING FACTOR B (OVERUTILIZATION FOR COMMERCIAL, RECREATIONAL, SCIENTIFIC, OR EDUCATIONAL PURPOSES)

#### <u>ARMY</u>

- i) Publications [signage, brochures]; Maintenance of informational poster, endangered species brochures
- ii) Workshops and events [date, location, audience, organizer]; Environmental Compliance Officers Course, Earth Day, Career Day Events, STEM Presentations at Schools, Other School Events
- iii) Public service broadcasts/announcements; or
- iv) Electronic media [website, Listserv, other internet-based outreach] Installation websites, Installation Facebook pages

### **NAVY**

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.
  - Publications [signage, brochures]; NAS Jacksonville installed signage and fencing near a new pavilion located close to previous burrow locations, NS Mayport utilized brochures, signage, and newspaper articles for GT awareness.
  - ii) Workshops and events [date, location, audience, organizer]; Ron Cherry, NAS Whiting Field, attended the 7<sup>th</sup> annual GT CCA meeting June 10, 2015 held at Spanish Fort, AL. NAS Jacksonville continued monthly INDOC briefings to military personnel for GT identification vs aquatic turtle and GT burrow identification vs armadillo.
  - iii) Public service broadcasts/announcements; or
  - iv) Electronic media [website, Listserv, other internet-based outreach]

# AIR FORCE

a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

**Tyndall AFB:** Briefed timber crews on the current marking of Gopher Tortoise burrows, White PVC with pink flagging, and to remain 25 feet away from burrows.

i) publications [signage, brochures];

**Moody AFB:** Mixon, B.A., J.M. Lockhart, C.M. McDonough, C.D. Anderson, P.C. Vincent, and G.W. Lee. 2015. Effects of military activity on gopher tortoise movement using radio frequency identification. Poster Paper. Georgia Southern University Research Symposium, 24 April 2015.

**Tyndall AFB:** Brochures were handed out to housing manager for distribution to residents. Procured "Tortoise Crossing" signs to be posted on roads where tortoises cross the roadway. Briefed Boy Scouts on tortoises and they were given brochures.

ii) Workshops and events [date, location, audience, organizer];

**Tyndall AFB:** 16 Sep 15, Military Family Housing, COPS Night out (Activity organized by Security Forces Squadron).

- iii) Public service broadcasts/announcements; or
- iv) Electronic media [website, Listsery, other internet-based outreach]

### **MARINES**

No report received.

### **USFS**

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.
  - i) Publications [signage, brochures];
  - ii) Workshops and events [date, location, audience, organizer];
  - iii) Public service broadcasts/announcements; or
  - iv) Electronic media [website, Listserv, other internet-based outreach]

### **USFWS**

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.
  - i) Publications [signage, brochures];
  - ii) Workshops and events [date, location, audience, organizer];

LS – Refuge Open House; Gopher talk and equipment demo, March 2015, On Refuge, Open to Public, USFWS Refuge Manager; UF class presentations (2), Gopher talk and equipment demo, June and October 2015, At Seahorse Key Marine Lab, University of Florida students & faculty, USFWS Refuge Staff.

- iii) Public service broadcasts/announcements; or
- iv) Electronic media [website, Listserv, other internet-based outreach]

#### **A**LABAMA

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.
  - i) Publications [signage, brochures];
    - DWFF continues to work with the Alabama Forestry Commission to create a gopher tortoise best management practices brochure with a target completion

date of spring 2016. Education and outreach materials continue to be developed.

ii) Workshops and events [date, location, audience, organizer];

April 22, 2015 DWFF staff gave a gopher tortoise conservation presentation to foresters attending a Sustainable Forestry Initiative (organizer) meeting in Montgomery AL.

- iii) Public service broadcasts/announcements; or
- iv) Electronic media [website, Listserv, other internet-based outreach]

A Division of Wildlife and Freshwater Fisheries gopher tortoise webpage was created in June 2015 and located at www.outdooralabama.gov.

### **FLORIDA**

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.
  - i) Publications [signage, brochures];

Over 11,700 outreach materials were distributed during this reporting period. These materials include the *Gopher Tortoise Rehabilitation Release Guidelines*, and *A Landowners Guide to Managing Gopher Tortoise Habitat* brochure. Approximately 5,100 of *A Guide to Living with Gopher Tortoises* were distributed to local governments, schools, nature centers, and Florida residents. The poster *Got Gophers*, *Get Permits* has been distributed 15 times to planning councils, county and city building departments, and local permitting offices. More than 1,990 *Safe roads for people and gopher tortoises* placards have been distributed and are available at Florida Visitor Centers, state parks, and local parks. All gopher tortoise publications, are available for free download at http://MyFWC.com/GopherTortoise and at each of FWC's Regional Offices.

ii) Workshops and events [date, location, audience, organizer];

Utilizing staff and student interns, the Gopher Tortoise Conservation Program hosted and/or participated in 26 outreach events, including: 9 local government workshops; 3 Law Enforcement training events, and; 20 other outreach events, including the Wakulla Wings & Wheels Fly-in Festival, the St. Marks Stone Crab Festival, Project Learning Tree at Riversink Elementary School, Creating the Next Generation that Cares at the Florida Capitol, three 4-H events, and multiple diverse presentations.

FWC gopher tortoise presentations and/or education booths were present at a variety of events, including:

• Project Learning Tree at Riversink Elementary

- Outdoor Experience at Beau Turner Youth Conservation Center
- Florida Native Plant Society (FNPS) Sarracenia Chapter Presentation
- Marion County Envirothon
- City of North Port Ecofest
- Leon County 4-H
- Birdsong Nature Center (NC) Presentation
- Willowood HOA Gopher Tortoise Talk
- Gopher Tortoise Awareness Day at Gumbo Limbo Nature Center
- Alligator Creek Garden Club Event
- Leon County 4-H Outdoor Wildlife Camp
- Sharing Environmental Education Knowledge (SEEK) Conference
- Liberty County 4-H camp

Additionally, three workshops were held to educate FWC Law Enforcement recruits and personnel. Two of the workshops focused on the importance of the gopher tortoise, protection for the gopher tortoise, and identifying gopher tortoise rule violations, and one workshop was hosted for FWC Law Enforcement Dispatch.

### iii) Public service broadcasts/announcements; or

- The FWC and the Wildlife Foundation of Florida contributed \$25,000 to sponsor a PBS documentary *Secrets of the Longleaf*, which highlighted the importance of the Longleaf pine ecosystem and the imperiled wildlife that depend on it. Wildlife species featured include the gopher tortoise, eastern indigo snake, eastern diamondback rattlesnake, and red cockaded woodpecker. The televised 60-minute documentary was broadcast in Georgia and Florida in October 2015.
- In April 2015, during the peak of spring break, FWC received a few calls about people putting tortoises in the ocean when encountered in coastal areas. FWC pushed out a press release that was published in many news outlets state-wide and in the national edition of USA Today.
- iv) Electronic media [website, Listserv, other internet-based outreach]
  - In February 2015, the FWC promoted a web-based interactive map via a Facebook post, which displays the approximate location of smartphone app user photos of gopher tortoises.
  - The FWC posted the "Springtime Shell-abration" on Facebook which promoted awareness of the gopher tortoise during the spring. This post reached over 58,000 people.
  - The FWC published press releases and a weekly agency report to announce regional workshops for local governments to help conserve gopher tortoises in Florida.

### GEORGIA DNR

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.
  - i) Publications [signage, brochures];
    - None this period
  - ii) Workshops and events [date, location, audience, organizer]; None this period
  - iii) Public service broadcasts/announcements; or None this period
  - iv) Electronic media [website, Listserv, other internet-based outreach] None this period

### SOUTH CAROLINA

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.
  - i) Publications [signage, brochures]; None to report.
  - ii) Workshops and events [date, location, audience, organizer]; None to report.
  - iii) Public service broadcasts/announcements; or None to report.
  - iv) Electronic media [website, Listserv, other internet-based outreach] None to report.

# GEORGIA DOT

- i) Publications [signage, brochures]; none
- ii) Workshops and events [date, location, audience, organizer]; none
- iii) Public service broadcasts/announcements; or **none**
- iv) Electronic media [website, Listserv, other internet-based outreach]

### None

### POARCH BAND OF CREEK INDIANS

No report received.

### **AMERICAN FOREST FOUNDATION**

No report received.

### LONGLEAF ALLIANCE

The Longleaf Alliance conducted 10 Longleaf Academies throughout the range of the Gopher Tortoise and presented at 73 organized events to over 2,900 attendees.

### **JONES CENTER**

- i) Publications [signage, brochures];
- ii) Workshops and events [date, location, audience, organizer];
- iii) Public service broadcasts/announcements; or
- iv) Electronic media [website, Listserv, other internet-based outreach]

### ALABAMA FORESTRY COMMISSION

Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

- i) Publications [Signage, brochures, etc.] N/A
- ii) Workshops, Tours, and Events; N/A
- iii) Public service broadcasts/announcements; N/A
- iv) Electronic media [website, Listserv, other internet-based outreach] N/A

# RELEVANT ACTIVITIES TO LISTING FACTOR C (DISEASE OR PREDATION)

#### ARMY

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)
- b) Disease screening efforts
- c) Predator control Feral swine trapping, control, removal; coyote control

#### NAVY

a) Disease and die-offs (date, property/location, cause if known, number of deaths)

- b) Disease screening efforts
- c) Predator control: Coyote & coyote hog direct lethal control continued on GT habitats resulting in the take of 5 coyotes, 25 feral hogs, and three feral cats by USDA BASH biologists, installation nuisance animal trapping contractors, and management staff at NAS Pensacola, NAS Whiting Field, and NAS Jacksonville (OLF Whitehouse).

# AIR FORCE

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)
- b) Disease screening efforts
- c) **Predator control:** A total of 35 coyotes, 997 feral hogs, and 24 raccoons were controlled as follows:

45th SW: 5 coyotes, 36 feral hogs, 15 raccoons

Avon Park AFR: 337 feral hogs

Eglin AFB: 9 coyotes, 624 feral hogs, 10 raccoons

Tyndall AFB: 18 coyotes, 9 raccoons

# **MARINES**

No report received.

### USFS

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)
- b) Disease screening efforts
- c) Predator control

### **USFWS**

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)
- b) Disease screening efforts

Any gopher tortoises tested for upper respiratory disease at Egmont Key are monitored until test results are completed; tortoises testing negative are returned back to the refuge, but if any were to test positive they would be sequestered from the general population.

c) Predator control

- EK 13 acres treated for fire ants.
- CH 2 acres treated for fire ants.
- SV Overabundant mesopredator and nonnative predator control provided by public hunting, approved animal control plan, and partnership with USDA Wildlife Services.

# **ALABAMA**

# a) Disease and die-offs (date, property/location, cause if known, number of deaths)

Ъ	3/5 /1	37	X7 . 6.	G .	G, ,	NT.	Α.	G	E: 11N /
Day	Month	Year	Verification	County	State	No	Age	Sex	Field Notes DOR. > 25
0	Cont	2015	Digital	Comingation	A 1 = 1 = =	1	A -114	E	
8	Sept	2015	Image	Covington	Alabama	1	Adult	Female	years of age. DOR, no
									· · · · · · · · · · · · · · · · · · ·
									specimen
									saved,
5	G	2015		G	A 1 - 1	1	A 1 1/	M.1.	destroyed on
Э	Sept	2015	none	Covington	Alabama	1	Adult	Male	road
									DOR, will be
0	G 4	0015		G : 1	A 1 1	4	1 4 1 1:	,	catalogued
2	Sept	2015	Carcass	Covington	Alabama	1	hatchling	juvenile	into AUM
									DOR, will be
4.0	Q .	0045					1 . 11	,	catalogued
10	Sept	2015	Carcass	Covington	Alabama	1	hatchling	juvenile	into AUM
									found dead
	Q .	0045					4.7.7.		outside
1	Sept	2015	Carcass	Covington	Alabama	1	Adult	Female	burrow
									First marked
									and sampled
									in May 2015.
									At initial
									capture,
									tortoise was
									externally
									healthy;
									antibody
									titers and
									nasal lavage
									all negative
									for
									Mycoplasma.
									Found dead
									outside
									burrow on 1
_	g .	2017				_	4 7 7:	ъ.	September
1	Sept	2015	Carcass	Covington	Alabama	1	Adult	Female	2015.
									found dead
	_							l	outside
1	Sept	2015	Carcass	Covington	Alabama	1	Adult	Female	burrow

1	May	2015	Carcass	Covington	Alabama	1	Adult	Male	found dead outside burrow
25	Aug	2014	Carcass	Conecuh	Alabama	1	Adult		DOR
					Total	9			
			DOR=Dead on ro	ad					
			DOA=Alive on ro	oad					

### b) Disease screening efforts

#### c) Predator control

- Perdido River WMA Trapping of Coyotes occurred during Alabama's trapping season through public participation during this reporting period.
- Barbour WMA DWFF staff continued predator removal program removing 18 feral hogs and 30 coyotes.
- Fred T. Stimpson Sanctuary 10 feral hogs were removed from this property during the reporting period.

### **FLORIDA**

# a) Disease and die-offs (date, property/location, cause if known, number of deaths)

The Gopher Tortoise Conservation Program has been collecting data on gopher tortoise mortality via an online web form since December 2014 and has been receiving preliminary data from public users. This data collection is the first step in trying to address the causes of road mortality by allowing FWC biologists to determine potential "hotspots" of gopher tortoise mortality throughout the state. Student interns are in the process of analyzing the data and eliminating false and duplicate records. It is anticipated that the next CCA report will include a summary of the data received. The web form can be viewed at <a href="https://public.myfwc.com/HSC/GopherTortoise/GTMortality.aspx">https://public.myfwc.com/HSC/GopherTortoise/GTMortality.aspx</a>.

In June 2015, FWC with the help of a FSU biology student intern, created a manual titled *Procedure for Investigation of Large-Scale Gopher Tortoise Mortality Events* that lays out a plan if a large-scale mortality is encountered. Unfortunately, in August while conducting gopher tortoise population surveys, the survey crew encountered a high number of tortoise shells at Lake Louisa State Park, located in Clermont, FL. The procedures explained in the *Procedure for Investigation of Large-Scale Gopher Tortoise Mortality Events* was followed, and FWC staff provided disinfection and sanitation protocols for those persons conducting the investigation. A survey of shells resulted in 91 shells in an approximate 15 hectare area of the park. Location data was recorded for all shells, and the stage of shell disarticulation was determined using the stages identified by C. Kenneth Dodd (1995).

### b) Disease screening efforts

The mortality event at Lake Louisa State Park also involved two days of trapping efforts which resulted in only three blood samples, although one of the samples came back seropositive. One dead juvenile tortoise was retrieved from a burrow in another area of the park, and a dead adult tortoise was found when scoping burrows, but that carcass was not recovered or tested. A follow-up survey and trapping effort are planned for spring 2016.

#### c) Predator control

The FWC discussed methods for controlling coyote predation of gopher tortoises at the September 2015 meeting of the Gopher Tortoise Technical Assistance Group (GTTAG). The group discussion concluded that while coyote predation does occur, none of the stakeholders/landowners has seen it occur at abnormally high levels that would call for a proactive control program/effort beyond the control methods already available. Staff will continue to stay apprised on studies and search for more information on this topic.

### GEORGIA DNR

a) Disease and die-offs (date, property/location, cause if known, number of deaths)

None this period

b) Disease screening efforts

None this period

c) Predator control

Fire ants were controlled with Amdro at the Yuchi WMA juvenile head-start release site

### SOUTH CAROLINA

- a) Disease and die-offs (date, property/location, cause if known, number of deaths) —we initiated a winter burrow temperature at AGTHP, the goal of which is to determine if dog damaged burrows become unsuitable for overwintering at the northern edge of the species' range.
- b) **Disease screening efforts** all waif tortoises received for release at AGTHP are given a physical assessment before release. Blood samples are banked
- c) **Predator control** –Dogs continue to be seen on AGTHP and to excavate GT burrows. Game cameras have been used to identify dogs, and it appears to be a small number of repeat offenders. We are exploring possible actions to remedy the situation and the ability to enforce a county leash law on the site.

# GEORGIA DOT

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)
   none
- b) Disease screening efforts -none
- c) Predator control -none

# POARCH BAND OF CREEK INDIANS

No report received.

# **AMERICAN FOREST FOUNDATION**

No report received.

### LONGLEAF ALLIANCE

Nothing to report.

# **JONES CENTER**

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)
- b) Disease screening efforts
- c) **Predator control** Mesomammalian predators (raccoon, opossum, skunk, fox, bobcat, and coyote) are excluded from 4 large-scale (90 ac) study plots to monitor effects on recruitment of gopher tortoises.

# **ALABAMA FORESTRY COMMISSION**

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)
  - (1) No dead tortoises observed by GSF or LRSF staff during the reporting period.
- b) Disease screening efforts: N/A
- c) Predator control: N/A

# RELEVANT ACTIVITIES TO LISTING FACTOR D (INADEQUACY OF EXISTING REGULATORY MECHANISMS)

# <u>ARMY</u>

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulations
  - ii) Agency policies/directives/compliance documents
  - iii) Permitted takes (property/location, number of takes permitted)

### **NAVY**

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulations.
  - ii) Agency policies/directives/compliance documents.
  - iii) Permitted takes (property/location, number of takes permitted).

# AIR FORCE

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulations
  - ii) Agency policies/directives/compliance documents
    - **Eglin AFB:** In cooperation with FWC, Eglin may receive public or agency discovered waif tortoises from local area (Escambia, Santa Rosa, Okaloosa, Walton, Holmes and Washington Counties). Previously, Eglin did not receive waif tortoises per agreement with GCPEP cooperating landowner (Nokuse Plantation).
  - iii) Permitted takes (property/location, number of takes permitted)

#### **MARINES**

No report received.

### **USFS**

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulations

- ii) Agency policies/directives/compliance documents
- iii) Permitted takes (property/location, number of takes permitted)

# <u>USFWS</u>

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulations
  - ii) Agency policies/directives/compliance documents
  - iii) Permitted takes (property/location, number of takes permitted)

### **A**LABAMA

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulationsNo changes during this reporting period.
  - ii) Agency policies/directives/compliance documents No changes during this reporting period.
  - iii) Permitted takes (property/location, number of takes permitted) None during this reporting period.

### **FLORIDA**

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulations
    Wildlife Best Management Practices (WBMPs) for Forestry and Agriculture
    were adopted by the Florida Department of Agriculture in 2015. Changes to
    Florida Administrative Code (F.A.C.) 5I-8.001, 5I-8.002, 5I-8.003, 5I-8.004
    (Forestry) and 5M-18 (Agriculture) were approved in 2014 and 2015
    respectively. The WBMPs for Forestry can be accessed at
    <a href="http://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/Our-Forests/Best-Management-Practices-BMP">http://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/Our-Forests/Best-Management-Practices-BMP</a>. The WBMPs for agriculture can be accessed at <a href="http://www.freshfromflorida.com/Divisions-Offices/Agricultural-Water-Policy/Enroll-in-BMPs/BMP-Rules-Manuals-and-Other-Documents#Wildlife">http://www.freshfromflorida.com/Divisions-Offices/Agricultural-Water-Policy/Enroll-in-BMPs/BMP-Rules-Manuals-and-Other-Documents#Wildlife</a>.
  - ii) Agency policies/directives/compliance documents

Revisions to the Gopher Tortoise Permitting Guidelines (highlights below) were approved by the Commission in February 2015. A complete summary is included in the approved guidelines that is available <u>online</u>.

- Revised the definition of an "abandoned burrow"; Added a definition for "improved pasture;"
- Added a permit exemption for county animal control officers that remove domestic animals from gopher tortoise burrows;
- Added language regarding the adopted silviculture and agriculture BMPs and revised text regarding the existing Gopher Tortoise Enforcement Policy;
- Increased the time period that 10 or Fewer Burrow permits are valid, from 6 months to one year;
- Deleted the requirement that permit application mitigation must be submitted for hatchling gopher tortoises < 60 mm carapace length;
- Permit mitigation costs were adjusted in July 2015 to account for increases in the CPI index;
- Added a renewal quiz requirement for Authorized Gopher Tortoise Agent permits;
- Revised to qualify for the "adjacent public lands-public projects" permit, the public project site must be no more than 1 mile from the public conservation land;
- Revised recipient site requirements:
  - Eliminated the maximum 1,000 acres of gopher tortoise habitat that could be permitted within a single recipient site permit application;
  - New requirements for recipient sites with improved pasture:
    - Improved pasture cannot comprise more than 40% of gopher tortoise habitat within a recipient site unit;
    - Must include at least 10% patchy shrub cover to provide shade:
    - Do not qualify for any gopher tortoise density stocking bonuses (i.e., maximum final density of 2/ac);
  - Added requirements for cattle grazing (e.g., providing a grazing plan);
  - Added mortality protocol that must be included in the habitat management plan and provided a mortality protocol checklist;
  - Added requirement that gopher tortoise monitoring surveys must include the burrow sizes and size classes.
- iii) Permitted takes (property/location, number of takes permitted)
  None

### GEORGIA DNR

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulations

- None this period.
- ii) Agency policies/directives/compliance documents None this period.
- iii) Permitted takes (property/location, number of takes permitted)

### SOUTH CAROLINA

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulations None to Report.
  - ii) Agency policies/directives/compliance documents during the report period a proposed solar development prompted discussions on the definition of a "take". SCDNR has taken the position that site development resulting in the destruction of a burrow would constitute a take, and consequently a violation of the states endangered species protection regulation.
  - iii) Permitted takes (property/location, number of takes permitted)- None to Report.

### GEORGIA DOT

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulations **none**
  - ii) Agency policies/directives/compliance documents none
  - iii) Permitted takes (property/location, number of takes permitted) none

### POARCH BAND OF CREEK INDIANS

No report received.

### AMERICAN FOREST FOUNDATION

No report received.

### LONGLEAF ALLIANCE

Nothing to report.

## **JONES CENTER**

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulations
  - ii) Agency policies/directives/compliance documents

iii) Permitted takes (property/location, number of takes permitted)

### ALABAMA FORESTRY COMMISSION

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulations
  - ii) Agency policies/directives/compliance documents
    - (1) The AFC will take appropriate measures to protect the interest of threatened and endangered species (TES) whenever they are known to occur within a project area. AFC personnel will be aware of the TES known to occur within their work unit and will consult the AFC Threatened and Endangered Species Manual regarding the potential effect of cultural treatments on TES. If a TES is encountered during the course of an AFC activity, personnel should contact their Regional Coordinator and the AFC Forest Health Coordinator for consultation concerning appropriate action. Management recommendations made in areas where TES are known to occur will be made in a manner that provides either benefits or no negative effects on the TES in question. \*(Existing Policy)
  - iii) Permitted takes (property/location, number of takes permitted) N/A

# RELEVANT ACTIVITIES TO LISTING FACTOR E (OTHER NATURAL OR MANMADE FACTORS AFFECTING THE SPECIES CONTINUED EXISTENCE)

### <u>ARMY</u>

Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form). Military training readiness required the relocation of 13 gopher tortoises. Three firing points were expanded totaling 3 acres. An existing range increased the height of the containment berm totaling half an acre. These projects resulted in temporary loss in gopher tortoise habitat. A new Breach facility range was constructed on 11 acres that resulted in the permanent loss of gopher tortoise habitat.

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2013 Camp Blanding	12	12	0	0	YES
2013 Ft. Benning	N/A	N/A	N/A	N/A	N/A
2013 Ft. Gordon	0	0	0	0	0
2013 Ft. Rucker	0	0	0	0	N/A
2013 Ft. Stewart	51	N/A	51	N/A	N/A
*2014 Camp Blanding	8	8	0	0	YES
2015	13	13	0	0	Yes

### **NAVY**

a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form). ). There were 47 translocations conducted on Navy lands including: NSB King's Bay (two tortoises were translocated from a solar panel array project to a suitable area on the installation); NAS Pensacola (eight tortoises were translocated including two tortoises from an armory weapons storage site and six tortoises from the airfield runway edge to a fenced gopher tortoise population on the installation); NAS Jacksonville (the return of one tortoise to a protected Watchable Wildlife area); and NAS Whiting Field (permanent relocation of 36 tortoises at NOLF Holley due to a solar panel array project).

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2009	0	0	0	0	0
2010	1	1	0	0	No
2011	3	3	0	0	No
2012	0	0	0	0	0
2013	0	0	0	0	0

2014	2	2	0	0	No
2015	47	47	0		Yes (ongoing at NOLF Holley)

## AIR FORCE

a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

**45th SW:** SpaceX construction of a landing pad at Launch Complex 13 and construction of two percolation ponds to support the CCAFS Wastewater Treatment Plan resulted in the permanent removal of 22 acres of gopher tortoise habitat – permanent translocation of tortoises was required, however all tortoises remained on CCAFS property. Other projects that required translocation of tortoises included installation of utility lines and replacement of fences. Although these were temporary impacts to tortoise habitat, the duration was long enough that necessitated translocation of tortoises – all 24 translocated GT remained on CCAFS property.

**Eglin AFB:** 36 tortoises had to be relocated during this time period. Twenty-three tortoises were relocated from an active airfield to an established relocation site on Eglin property. Twelve tortoises were relocated from construction areas and one waif tortoise was relocated.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2009					
2010	52	0	52	0	NO
2011	53	0	53	0	NO
2012	16	0	16	0	NO
2013	97	0	97	0	NO
2014	18	0	18	0	NO
2015	60	0	60	0	24 NO 36 YES

### **MARINES**

No report received.

# **USFS**

Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form) NONE

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?

### **USFWS**

Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2014	n/a				
n/a					

### **ALABAMA**

a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

DWFF permanently relocated seven tortoises from a development site in Baldwin County to Geneva State Forest, Geneva County (in cooperation with the Alabama Forestry Commission); exclusion from development was not an option in this case. DWFF and Alabama Forestry Commission personnel erected the enclosure and tortoises were released into starter burrows, September 2015. Each tortoise was marked, a visual health inspection

was conducted and data were collected. All seven tortoises appeared to be healthy. An additional tortoise was left on the door steps of the DWFF District office a week after the enclosure was erected. This juvenile gopher tortoise was placed in the enclosure with the other 7. Tortoises will reside in the enclosure for no longer than 12 months. After that time the enclosure will be dismantled.

Table 6.	Trans	location
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Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2006	17	17	0	0	soft
2007	3	3	0	0	soft
2008	11	11	0	0	soft
2009	24	24	0	0	soft
2011	1	1	0	0	hard
2014	6	0	6	0	hard
2015	8	8	0	0	yes

### **FLORIDA**

a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

All development projects that will impact gopher tortoises are required to relocate tortoises prior to any land clearing or vegetation disturbance. A permit from FWC is required to relocate tortoises and they must be moved to a permitted recipient site, or may be relocated on-site if sufficient habitat will remain post-development.

Under FWC's gopher tortoise permit system, a total of 5,655 gopher tortoises were relocated from development sites. This includes adult, juvenile, and hatchling tortoises. All off-site relocation requires tortoises to be released into temporary enclosures for 6-12 months at the recipient site. Of the total number of tortoises relocated, 5,211 were relocated to long or short-term protected recipient sites, 195 were relocated on-site, 249 were temporarily relocated for utility right-of-way projects, and 11 were relocated under the Camp Blanding Categorical Exclusion permit. Additionally, as a result of ongoing efforts by FWC and its partners to encourage humane relocation of gopher tortoises from sites with previously-permitted incidental take permits, 580 adult and juvenile gopher tortoises were relocated to protected sites primarily in the Florida Panhandle, and were also

released into temporary enclosures for 6-12 months. Although these ITP recipient sites (Nokuse Plantation and Avalon Plantation) are not permitted under the current standard, they do follow the current practices and guidelines and are considered protected sites because of the perpetual conservation easements on these lands that prevent future development. Lastly, 51 tortoises were relocated from development sites after the site was prematurely cleared under the "disturbed site" permit option. These tortoises were relocated to long-term protected recipient sites.

In addition to the permitted relocations, FWC continues with efforts to identify solutions for waif tortoises. Waif tortoises are gopher tortoises that have been removed from the wild (either unauthorized or due to injury) and are not associated with a permitted relocation. One solution includes establishing "waif tortoise recipient sites" on lands owned by local governments and conservation organizations. For this fiscal year, one waif site in Lake County, Sabal Bluff Preserve Waif Recipient Site was established and a total of 10 tortoises were released on the site. Additionally, two waif gopher tortoises were released at the Circle B Bar Reserve Waif Recipient Site in Polk County, Florida, and two waif tortoises were released at Kingman Preserve Waif Recipient Site in Homestead, Florida. One non-releasable waif gopher tortoise with a missing limb was also translocated to the Brooker Creek Environmental Education Classroom to be used in educational programs. Several juvenile and hatchling gopher tortoises were able to be released on state lands, due to their low potential to impact existing gopher tortoise populations; 1 juvenile waif gopher tortoise was released at Hugh Taylor Birch State Park, 2 juvenile waif tortoises were released at Teneroc Fish Management Area, and 8 hatchlings were released at Jonathan Dickinson State Park.

Under a current MOA with the South Carolina Department of Natural Resources (SCDNR), there is also an ongoing effort to restock gopher tortoises on public lands where they are currently depleted in South Carolina through the waif program. FWC staff coordinated with SCDNR during FY 2014-15 to amend the MOA, extending the expiration date by two years and increasing the number of gopher tortoises transferable by an additional 100 tortoises.

In 2015, Gopher Tortoise Conservation Interns completed a project involving an investigation of expired and current waif gopher tortoise permits (also called scientific collecting permits). They examined scientific collecting permit records to evaluate and update the number of tortoises in possession and to notify permittees of the need to renew their permit (if expired). A questionnaire was distributed to 171 permittees, and 47 were returned with information on the size and details of each facility, and the number of tortoises currently in their possession.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2009	3,091	199	2,892*	6	Yes
2010	2,724	2,393	331	1,165	Yes
2011	2,623	2,267	356	291	Yes
2012	2,023	1,921	102	169	Yes
2013	2,128	1,979	149	165	Yes
2014	2,822	2,561	122	139	Yes
2015	5,692	5,248	195	249	Yes

<sup>\*</sup>In 2009, FWC was still issuing "Standard Relocation" permits that did not require tortoises to be relocated to protected lands. The new permit program was implemented in April 2009.

### GEORGIA DNR

a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

162 tortoises displaced by six solar farm developments were translocated to four state lands (Chattahoochee Fall Line WMA - 71; Fall Line Sandhills WMA - 28; Moody Forest NA - 7; Silver Lake WMA - 56). 45 tortoises displaced by an agricultural development in Wheeler County were translocated to Moody Forest NA. 143 headstarted juvenile tortoises were released at Yuchi WMA; some of these tortoises were placed in soft enclosure pens for a short period, others were hard released.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2009	2	2	0	0	yes
2010	3	3	0	0	yes
2011	18	18	0	0	yes

2012	19	19	0	0	yes
2013	0	0	0	0	n/a
2014	20	12	8	0	8 GTs = yes  12 headstarted GTs = no*
2015	350	350	0	0	207 GTs = yes 143 headstarted GTs = no

# SOUTH CAROLINA

a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

Table 6. Translocation

Repor	Total number t of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2012- 2013	1 18	all	0	0	yes
2013- 2014		all	0	0	yes
2014- 20158		all	0	0	yes

<sup>\*238-</sup>total to date released at AGTHP (most are translocations, except hatchlings)

# GEORGIA DOT

a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

2015 – Corblu Ecology Group LLC permanently relocated 32 gopher tortoises onto GDOT's Black Creek property from a private development site.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2013	0	0	0	0	N/A
2014	0	0	0	0	N/A
2015	32	32	0	0	Unknown

# POARCH BAND OF CREEK INDIANS

No report received.

# **AMERICAN FOREST FOUNDATION**

No report received.

# **LONGLEAF ALLIANCE**

Nothing to report.

# **JONES CENTER**

a. Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

N/A

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2012	N/A	N/A	N/A	N/A	N/A
2013	N/A	N/A	N/A	N/A	N/A
2014	N/A	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A	N/A

### ALABAMA FORESTRY COMMISSION

- a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form).
  - (1) In cooperation with Alabama Department of Conservation and Natural Resources a four-acre gopher tortoise translocation enclosure was constructed at Geneva State Forest. See section above for more information on this translocation.

Table 6.	Translocation
Table 0.	11 and ocalion

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2014					
2015	none	N/A	N/A	N/A	none

<sup>\*</sup>No GTs were translocated off of AFC State Forests, GTs from other sites were translocated onto GSF.

# ALL OTHER EDUCATION AND OUTREACH NOT MENTIONED IN SECTION III ABOVE

### **ARMY**

- a) Publications [signage, brochures];
- b) Workshops and events [date, location, audience, organizer];
- c) Public service broadcasts/announcements; or
- d) Electronic media [website, Listserv, other internet-based outreach]

### **NAVY**

- a) Publications [signage, brochures]; GT coloring book passed out to children at education center at NAS Jacksonville.
- b) Workshops and events [date, location, audience, organizer];
- c) Public service broadcasts/announcements; **GT awareness in JAX Air News** "Nature Abounds", NAS Jacksonville.

d) Electronic media [website, Listserv, other internet-based outreach]

### AIR FORCE

- a) Publications [signage, brochures];
- b) Workshops and events [date, location, audience, organizer];

**45th SW:** The 45 SW set up a display at the Space Coast Bird and Wildlife Festival in January 2015 at Eastern Florida State College in Titusville, FL. The festival attracts bird and wildlife enthusiasts from all over the world. The display has a panel that discusses gopher tortoise relocation activities via backhoe and bucket traps, and includes a discussion on using excluder fences to prevent tortoises from re-entering areas. Additionally, the 45 SW provided natural resources training to security, Navy and explosive ordinance disposal personnel that have a need to occasionally travel off road. The training presentation included a discussion on gopher tortoise use of roads and road shoulders and using caution when driving in areas where tortoises may burrow or forage.

- c) Public service broadcasts/announcements; or
- d) Electronic media [website, Listserv, other internet-based outreach]

### **MARINES**

No report received.

# **USFS**

- a) Publications [signage, brochures];
- b) Workshops and events [date, location, audience, organizer];

Conecuh National Forest hosts and participates in numerous education and outreach events throughout the year to public school groups, college/university classes, community groups and expos. Almost all presentations are focused on longleaf restoration and management. Longleaf pine and the associated wildlife including gopher tortoises are discussed during these events.

USFWS and ADNR sponsored a workshop on gopher tortoise soils on Conecuh National Forest in FY 15. This gathering of soil scientists from the range of the gopher tortoise discussed the various aspects of soil preferences by gopher tortoises based on local conditions, hydrology and geographic location.

- c) Public service broadcasts/announcements; or
- d) Electronic media [website, Listserv, other internet-based outreach]

# **USFWS**

- a) Publications [signage, brochures]; n/a
- b) Workshops and events [date, location, audience, organizer];
- c) Public service broadcasts/announcements; or
- d) Electronic media [website, Listsery, other internet-based outreach]

### **A**LABAMA

- a) Publications [signage, brochures]; n/a
- b) Workshops and events [date, location, audience, organizer];
- c) Public service broadcasts/announcements; or
- d) Electronic media [website, Listserv, other internet-based outreach]

### **FLORIDA**

a) Publications [signage, brochures].

N/A

 $b) \ \ Workshops \ and \ events \ [date, location, audience, organizer];$ 

N/A

c) Public service broadcasts/announcements; or

N/A

d) Electronic media [website, Listserv, other internet-based outreach] N/A

### GEORGIA DNR

a) Publications [signage, brochures];

None this period

- b) Workshops and events [date, location, audience, organizer];
  - October 2014. Swainsboro. Ohoope Dunes WMA trail dedication brief presentation on gopher tortoise and sandhill conservation.
  - November 2014. Forsyth. Master Timber Harvester initial training presentation on gopher tortoise conservation.
  - November 2014. McRae. Master Timber Harvester continuing education training presentation on gopher tortoise conservation.
  - January 2015. Forsyth. Master Timber Harvester initial training presentation on gopher tortoise conservation.
  - February 2015. Sea Island. Weekend for Wildlife Gopher tortoise used for outreach to event guests.

- February 2015. Tifton. Abraham Baldwin Agricultural College, The Wildlife Society monthly meeting presentation on gopher tortoise conservation.
- March 2015. Claxton area Elementary school programs focusing on sandhill ecosystems prior to Claxton Rattlesnake and Wildlife Festival.
- March 2015. Claxton. Claxton Rattlesnake & Wildlife Festival DNR booth with sandhills display.
- April 2015. Tifton. Master Timber Harvester initial training presentation on gopher tortoise conservation.
- May 2015. Athens. Georgia Association of Tax Officials conference (county tax commissioners and their office staff) – NCS Chief Jon Ambrose used a live gopher tortoise as a high-priority conservation species in his speech to the conference about DNR wildlife license plates. The tortoise was also a popular attraction at the agency's booth.
- May 2015. Atlanta. Atlanta Botanical Gardens Endangered Species Day;
   DNR booth included gopher tortoise and sandhill conservation information and materials.
- June 2015. Monticello. Summer camp for students "Wildlife of Georgia" program included gopher tortoise and other sandhill species.
- July 2015. Forsyth. Master Timber Harvester initial training presentation on gopher tortoise conservation.
- c) Public service broadcasts/announcements; or

# Targeted media outreach:

# Worked with SREL to target media on record head-start release at Yuchi in June 2015

- UGA Warnell release (DNR contributed) "Researchers organize largest gopher tortoise release in Georgia near Waynesboro"
- Georgia Wild E-news article 6/18/15 "Head-start help for Yuchi tortoises"
- The Augusta Chronicle "Nearly 150 gopher tortoises released in Georgia to help restore threatened reptile population"
- WAGT-TV (NBC 26, Augusta) -"Local tortoise population gets a boost" (with warning: "This story may contain excessive amounts of cuteness")

News release: Gov. Deal Honors Companies as 2014 Forestry for Wildlife Partners – mentions gopher tortoise work

- d) Electronic media [website, Listserv, other internet-based outreach]
- e) Facebook posts:
  - Big eastern indigo slides into gopher tortoise burrow, posted 2/24/15 (1.1 million views as of 1/8/16)
  - Gopher tortoise at Reed Bingham SP, posted 6/17/15 (12,580 views as of 1/8/16)

### SOUTH CAROLINA

- a) Publications [signage, brochures]; None to report.
- b) Workshops and events [date, location, audience, organizer]; None to report.
- c) Public service broadcasts/announcements; or None to report.
- d) Electronic media [website, Listserv, other internet-based outreach] None to report.

# GEORGIA DOT

- a) Publications [signage, brochures]; **none**
- b) Workshops and events [date, location, audience, organizer]; **none**
- c) Public service broadcasts/announcements; or none
- d) Electronic media [website, Listserv, other internet-based outreach none

# POARCH BAND OF CREEK INDIANS

No report received.

### **AMERICAN FOREST FOUNDATION**

No report received.

### LONGLEAF ALLIANCE

Nothing to report.

## **JONES CENTER**

- a) Publications [signage, brochures];
- b) Workshops and events [date, location, audience, organizer];
- c) Public service broadcasts/announcements; or
- d) Electronic media [website, Listserv, other internet-based outreach]

### ALABAMA FORESTRY COMMISSION

- a) Publications [signage, brochures];
  - (i) Revised and updated AFC Management Information Sheet on the gopher tortoise. Management Information Sheets are provided as supplemental information with stand management recommendations and STEWARDSHIP management plans.

- (ii) AFC is developing a Gopher Tortoise Landowner Questionnaire in order to get more specific data about GT management on private lands. The questionnaire is currently in draft form and should be completed by the end of Q2 2016.
- b) Workshops and events [date, location, audience, organizer];
  - (i) Landowner Tour Focusing on Gopher Tortoise Habitat Management, 08/04/15, Geneva State Forest, Geneva County Forestry Association & Covington County Forestry Planning Committee, 35 attendees, Alabama Forestry Commission
  - (ii) Landowner Tour with a Gopher Tortoise Habitat Management Presentation, 06/09/15, Geneva State Forest, Auburn Forestry Students, 23 attendees, AFC
  - (iii)Prescribed Burning Seminar, 10/23/14, Little River State Forest, local landowners, 12 attendees, Monroe County Forestry Planning Committee and AFC
  - (iv) Boy Scout Wildlife Merit Badge Course, 10/08/14, Little River State Forest, local Boy Scout troop, 148 attendees, Monroe County Forestry Planning Committee and AFC
- c) Public service broadcasts/announcements; N/A
- d) Electronic media [website, Listserv, other internet-based outreach] N/A

# RESEARCH STUDIES – CONDUCTED BY OR SUPPORTED BY AGENCY (IF PUBLISHED, INCLUDE CITATION)

#### ARMY

Not provided.

# **NAVY**

The Navy participated in Project Orianne at three installations, using dog detection for indigo snake occurrence in GT habitat.

### AIR FORCE

**Moody AFB:** Demographic Monitoring of Gopher Tortoise Populations on Moody AFB, GA. Valdosta State University, Dr. Mitch Lockhart, Principal Investigator. Project was funded in FY15 by the USFWS. The installation continues to work with Dr. Lockhart on this project, although it is not directly involved in the contract any longer.

### **MARINES**

No report received.

### **USFS**

Auburn University/Alabama Natural Heritage Program Statewide Gopher Tortoise Study-Jim Godwin and Jeff Goessling. A State Wildlife Grant titled Study of Distribution, Abundance, and Health Status of the Gopher Tortoise in Alabama is underway by the Alabama Natural Heritage Program. Over a three year period, basic data will be acquired related to the current distribution and abundance of gopher tortoises in the state with emphasis on their status on public and selected private lands. Abundance will be determined across the current range in Alabama using a standardized population estimation protocol and correlated with parameters of habitat quality. Efforts will be made to assess the number of stable and declining populations on public and private lands. A translocation plan will be developed for population augmentation. Tortoises have been sampled from several populations within Conecuh National Forest this summer. 2013-2015.

### **USFWS**

None this reporting period.

### **A**LABAMA

Ongoing research supported by DWFF includes:

- A DWFF secured State Wildlife Grant (SWG) continues to fund a project to survey private and public lands Auburn University (Major Professor: S. Hermann).
- Gopher Tortoise Habitat Model; Helen Tripp: Masters student in School of Forestry and Wildlife Science, Auburn University (Major Professor: R. Gitzen).
- Gopher Tortoise Habitat Structure/Quality; Rebecca Pudner: Masters student in Department of Biological Sciences, Auburn University (Major Professor: S. Hermann).
- A DWFF secured SWG funded research project continued examining gopher tortoise health and assessment; Jeff Goessling: PhD student in Department of Biological Sciences, Auburn University (Co-Major Professors: M. Mendonca and C. Guyer).

### **FLORIDA**

Berish, J.E.D. and Leone, E.H. 2014. Follow-up demographic survey of a Florida gopher tortoise population. 2013. Southeastern Naturalist, 13(4): 639-648.

Burr, D., Kline, J., and Perryman, A. 2014. A smartphone application for monitoring gopher tortoises in Florida. Florida Scientist. 77(4): 198-203.

### GEORGIA DNR

We continued a contracted (UGA) study entitled: "Head-starting to augment gopher tortoise populations on protected areas in Georgia"

### SOUTH CAROLINA

We are currently conducting LTDS at gopher tortoise sites in South Carolina, as well as winter burrow temperature studies at damaged and repaired burrows at AGTHP. Additionally, work to evaluate utilizing waif tortoises to establish an MVP as a conservation tool is ongoing. We have identified several research needs and are looking for funding opportunities.

# GEORGIA DOT

None reported.

### POARCH BAND OF CREEK INDIANS

No report received.

### AMERICAN FOREST FOUNDATION

No report received.

### LONGLEAF ALLIANCE

Nothing to report.

### JONES CENTER

Smith, L.L., M. Hinderliter, R.S. Taylor, and J.M. Howze. 2015. Recommendation for Gopher Tortoise Burrow Buffer to Avoid Collapse from Heavy Equipment. Journal of Fish and Wildlife Management 6(2):456-463.

Dziadzio, M.C. and L.L. Smith. 2015. GOPHERUS POLYPHEMUS (Gopher tortoise). Nest and burrow defense. Herpetological Review 46(1): 80-81.

Dziadzio, M.C., A.K. Long, L.L. Smith, R.B. Chandler, and S.B. Castleberry. Presence of the red imported fire ant at gopher tortoise nests. Wildlife Society Bulletin. *In press*.

Dziadzio, M.C., L.L. Smith, R.B. Chandler, and S.B. Castleberry. Effect of nest location on gopher tortoise nest survival. Journal of Wildlife Management. *In press*.

Dziadzio, M.C., R.B. Chandler, L.L. Smith, and S.B. Castleberry. Impacts of red imported fire ants (*Solenopsis invicta*) on nests and hatchling gopher tortoises (*Gopherus polyphemus*) in southwest Georgia. Herpetological Conservation and Biology. *In review*.

Dziadzio, M.C., and L.L. Smith. Vertebrate use of gopher tortoise burrows and aprons. Southeastern Naturalist. *In review*.

### ALABAMA FORESTRY COMMISSION

Research studies –  $\underline{\text{Conducted by or supported by agency}}$  (if published, include citation): N/A

### CCA AGENCY CONSERVATION STRATEGY

(see CCA Section 10.2)

# <u>ARMY</u>

- a) Deviations from CCA Agency Conservation Strategy
- b) New goals and strategies not included under the CCA Agency Conservation Strategy

# NAVY

- a) Deviations from CCA Agency Conservation Strategy
- b) New goals and strategies not included under the CCA Agency Conservation Strategy

### AIR FORCE

- a) Deviations from CCA Agency Conservation Strategy
- b) New goals and strategies not included under the CCA Agency Conservation Strategy

### **MARINES**

No report received.

### **USFS**

- a) Deviations from CCA Agency Conservation Strategy
- b) New goals and strategies not included under the CCA Agency Conservation Strategy

# **USFWS**

- a) Deviations from CCA Agency Conservation Strategy
- b) New goals and strategies not included under the CCA Agency Conservation Strategy

# **ALABAMA**

- a) Deviations from CCA Agency Conservation Strategy None.
- b) New goals and strategies not included under the CCA Agency Conservation Strategy None.

### **FLORIDA**

- a) Deviations from CCA Agency Conservation Strategy N/A
  - b) New goals and strategies not included under the CCA Agency Conservation Strategy N/A

### GEORGIA DNR

a) Deviations from CCA Agency Conservation Strategy

None

b) New goals and strategies not included under the CCA Agency Conservation Strategy - None

# SOUTH CAROLINA

- a) Deviations from CCA Agency Conservation Strategy None to report.
- b) New goals and strategies not included under the CCA Agency Conservation Strategy none to report.

### GEORGIA DOT

- a) Deviations from CCA Agency Conservation Strategy none
- b) New goals and strategies not included under the CCA Agency Conservation Strategy - none

### POARCH BAND OF CREEK INDIANS

No report received.

### AMERICAN FOREST FOUNDATION

No report received.

# LONGLEAF ALLIANCE

- a) Deviations from CCA Agency Conservation Strategy None
- b) New goals and strategies not included under the CCA Agency Conservation Strategy - None

### **JONES CENTER**

- a) Deviations from CCA Agency Conservation Strategy
- b) New goals and strategies not included under the CCA Agency Conservation Strategy none

### ALABAMA FORESTRY COMMISSION

- c) Deviations from CCA Agency Conservation Strategy None
- d) New goals and strategies not included under the CCA Agency Conservation Strategy - None

For more information please see the AFC appendices and supplemental at the end of this report.

#### APPENDIX I: GOPHER TORTOISE CCA REPORT FORMAT

Gopher Tortoise	Candidate Conservation Agreement (GTCCA)	
Reporting Perio	d: October 1, 2013 - September 30, 2014	
-	ne CCA Gopher Tortoise Team (GTT) Chair: February 1 ent Report for:	18, 2015
	Organization/Agency name	
Submitted by: _		
Email:	Phone:	

Organization/Agency contact name

The Candidate Conservation Agreement for the Gopher Tortoise (GTCCA) was signed and implemented in December 2008. The Agreement requires an annual assessment report from each party to the agreement to document conservation activities occurring within the gopher tortoise' non-federally listed range. To facilitate the compilation of information, this report format should be followed by all CCA partners. The assessment report should include activities completed on an annual basis for the period covering October 1 – September 30. Not all sections included below will be applicable to each organization. If sections of this report are not applicable to your organization's gopher tortoise conservation activities or are not applicable for the current reporting period, please indicate so. Please do not report the same data/information more than 1 time in the submitted report. Tables are provided below to help data on acres, management of gopher tortoise habitat, habitat protected, population monitoring, and translocations be consistent and easy to track and compile. Please add a new row for each reporting year.

The annual assessment report will be submitted to the Gopher Tortoise Team Chair by February 18, 2015. The final CCA Annual report will be compiled and submitted by the Gopher Tortoise Team Chair to the U.S. Fish and Wildlife Service (USFWS) and the Southeast Regional Partnership for Planning and Sustainability (SERPPAS) Principals by March 20, 2015. The final report will also be posted to the GTCCA website.

### I) Executive Summary

Provide a brief summary of activities completed during the current reporting year.

II) Relevant Activities to Listing Factor A (The present or threatened destruction, modification, or curtailment of the species habitat or range).

Complete the table below to provide information on acres and management of gopher tortoise habitat under your agency's authority or management. Please combine totals if reporting on multiple properties.

- a) How much potential gopher tortoise habitat does the <u>signatory agency</u> directly own or manage?
  - i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency

(put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009			
2010			
2011			
2012			
2013			
2014			

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.
  - i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
	Owned or managed lands					
2009	**Other lands					
	Owned or managed lands					
2010	**Other lands					
	Owned or managed lands					
2011	**Other lands					
2012	Owned or managed lands					

	**Other lands			
	Owned or managed lands			
2013	**Other lands			
	Owned or managed lands			
2014	**Other lands			

<sup>\*</sup> The *Total acres restored or maintained as GT habitat* should be the sum of the preceding 4 columns.

### c) Land Conservation

i. Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2009				
2010				
2011				
2012				
2013				
2014				

ii. Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the

<sup>\*\*</sup>Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

# signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2009			
2010			
2011			
2012			
2013			
2014			

# d) Gopher tortoise population monitoring

Table 5. Population survey data (if survey methodology was not Line Transect Distance Sampling, indicate what methodology was used)

Report	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2009						
2010						
2011						
2012						
2013						

2014			

- e) Research <u>conducted by or supported by agency</u> (if published, include citation)
- III. Relevant Activities to Listing Factor B (Overutilization for commercial, recreational, scientific, or educational purposes)
  - a) Research <u>conducted by or supported by agency</u> (if published, include citation)
  - b) Education and outreach
    - i) Publications [signage, brochures];
    - ii) Workshops and events [date, location, audience, organizer];
    - iii) Public service broadcasts/announcements; or
    - iv) Electronic media [website, Listserv, other internet-based outreach]
- IV. Relevant Activities to Listing Factor C (Disease or predation)
  - a) Disease and die-offs (date, property/location, cause if known, number of deaths)
  - b) Disease screening efforts
  - c) Predator control
  - d) Research <u>conducted by or supported by agency</u> (if published, include citation)
- V. Relevant Activities to Listing Factor D (<u>Inadequacy of existing regulatory mechanisms</u>)
  - a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
    - i) State laws, rules and regulations
    - ii) Agency policies/directives/compliance documents

- iii) Permitted takes (property/location, number of takes permitted)
- b) Education and outreach
  - i) Publications [signage, brochures];
  - ii) Workshops and events [date, location, audience, organizer];
  - iii) Public service broadcasts/announcements; or
  - iv) Electronic media [website, Listserv, other internet-based outreach]

# VI. Relevant Activities to Listing Factor E (Other natural or manmade factors affecting the species continued existence)

a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

Table 6. Translocation

Report	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?

- b) Research <u>Conducted by or supported by agency</u> (if published, include citation)
- c) Education and outreach
  - i) Publications [signage, brochures];
  - ii) Workshops and events [date, location, audience, organizer];

- iii) Public service broadcasts/announcements; or
- iv) Electronic media [website, Listserv, other internet-based outreach]

# VII. CCA Agency Conservation Strategy (see CCA Section 10.2)

- a) Deviations from CCA Agency Conservation Strategy
- b) New goals and strategies not included under the CCA Agency Conservation Strategy

**APPENDIX II: DEFINITIONS** (please see the GTCCA for a full list of definitions):

Habitat without a designated special protection status – applies to lands that are included in a management plan: this could consist of state public lands under a state management plan; Department of Defense installations (with a signed/approved Integrated Natural Resources Management Plan - INRMP).

**Integrated Natural Resources Management Plan (INRMP)** - a document that supports the military mission by combining a series of component plans into an ecosystem management approach and is the primary tool for managing species and their habitat on military installations.

**Long-term protection (habitat)** – applies to either privately owned lands placed under a perpetual (i.e., endless duration) conservation easement, or publicly owned lands purchased for conservation purposes where either restrictions on the acquisition funding source or government commitment (through ordinances or other regulations) would prevent or prohibit the eventual sale or development of the property.

**Protected (habitat)** – applies to any land that is protected from any future development (i.e. take of habitat).

**Short-term protection (habitat)** – applies to either privately or publicly owned lands that have some enforceable protection commitment, but those commitments do not meet the definition of "long-term protection."

**Unprotected Site (habitat)** – applies to lands that do not have any enforceable protection commitments or use restrictions that would prevent them from being modified and made unsuitable for tortoises.

# ALABAMA FORESTRY COMMISSION APPENDICES – SUPPLEMENTAL INFORMATION

Appendix A. Acres of Private Land Prescribe Burned by AFC in GT Range

		Total Asses	
C	# - f D	Total Acres	
County	# of P-burns	RxB FY15	
Mobile	8	1162	
Baldwin	20	2015	
Washington	19	890	
Choctaw	15	554.6	
Sumter	2	361	
Marengo	15	469.4	
Clarke	25	1289	
Escambia	9	251.35	
Conecuh	9	840.1	
Monroe	11	787	
Wilcox	11	543.5	
Covington	13	1137	
Butler	6	314.2	
Montgomery	2	134	
Geneva	5	217	
Coffee	9	395.9	
Crenshaw	15	836.6	
Pike	4	53	
Houston	2	60	
Dale	1	25	
Henry	7	888	
Barbour	6	183	
Bullock	12	946.96	
		14353.61	

<sup>\*</sup>P-burn and RxB are abbreviations for prescribed burn.

# Appendix B. AFC Practice Check and Stand Management

	Total Acres	Commercial	Pre-Commercial	General	Existing Mang.		Softwood		Prescribed	Undefined
County	Checked FY15	Thinning	Thinning	Harvesting	Check	LLP Planting	Planting	TSI	Burning	CRP/EQIP SMRs
Mobile	257	30	0	68	0	0	80	33	46	0
Baldwin	2987.4	145.3	0	223.9	0	0	0	309	2309.2	0
Washington	691	80	0	0	0	341	40	211	19	0
Choctaw	801	0	0	0	0	0	147	0	654	0
Sumter	1353	407	0	0	0	0	946	0	0	0
Marengo	1165.4	268	0	0	0	0	0	819.4	78	0
Clarke	1583	120	0	50	0	0	392	325	15	681
Escambia	7051.3	648.8	0	0	36.5	145	69.1	432	5719.9	0
Conecuh	580.1	83.5	0	0	7.3	0	131.8	11	0	346.5
Monroe	1875.6	921.9	165	0	3.9	0	0	0	192	592.8
Wilcox	0	0	0	0	0	0	0	0	0	0
Covington	5247.5	664.7	0	0	121.9	246.1	70.3	518.3	2315	1311.2
Butler	1691.211	100.4	0	78.6	0	16.5	68.8	221.1	597.4	608.411
Montgomery	1018.5	10	0	106.6	0	0	32.6	89.7	0	779.6
Geneva	3510.87	263.8	0	0	721.8	20	0	268.9	1432.67	803.7
Coffee	1585.8	408.5	0	134.8	0	45.3	92	47	261.6	596.6
Crenshaw	2686.63	278.9	20.4	66	205.59	0	22	18.6	658.8	1416.34
Pike	1481.27	494.6	0	0	0	0	54.5	82.2	287.37	562.6
Houston	1302.29	144.17	0	53.5	18.1	95.8	0	34	234.11	722.61
Dale	1387.53	47.3	0	126	64	11.6	57.9	171.36	311.6	597.77
Henry	1859.72	22.9	0	100	0	4.4	0	81.81	819.11	831.5
Barbour	1735.14	265.6	0	36	52	0	20.9	303.6	240.1	816.94
Bullock	677.7	149	0	0	0	0	5	130	187.7	206
	42528.961	5554.37	185.4	1043.4	1231.09	925.7	2229.9	4106.97	16378.56	10873.571

**Recommendation Acres** 

Appendix C. AFC Invasive Species Detection, Control Recommendation, and Control Verification Acres

		Inv. Species Control	Privet	Kudzu	Tallow	Other Inv.	Cogon	Cogon Grass
County	Total Acres	Verification	SMR	SMR	Tree SMR	Sp. SMR	Grass SMR	Detection
Mobile	70	0	0	0	0	20	12	38
Baldwin	1494.68	0	233.9	0	0	0	180.09	1080.69
Washington	9.52	0	0	0	0	0	4.76	4.76
Choctaw	10.67	0	0	0	0	0	9.38	1.29
Sumter	0	0	0	0	0	0	0	0
Marengo	5.11	0	0	0	0	0	2.56	2.55
Clarke	11.3	0	0	0	0	0	11.3	0
Escambia	773.3	7	80	10	0	55.6	548.8	71.9
Conecuh	15.02	0	0	0	0	0	7.55	7.47
Monroe	64.3	57.1	0	0	0	0	2.85	4.35
Wilcox	11.6	0	0	0	0	0	5.8	5.8
Covington	119.55	41.9	0	5	0	49	21.4	2.25
Butler	91.8	8.6	0	0	0	80	1.5	1.7
Montgomery	21.7	21.6	0	0	0	0	0	0.1
Geneva	107.3	62.9	0	0	0	0	44.4	0
Coffee	0.61	0	0	0	0	0	0	0.61
Crenshaw	154.32	152.32	0	0	0	0	1	1
Pike	0.3	0	0	0	0	0	0.2	0.1
Houston	17.62	9.5	4	0	0	3.5	0.22	0.4
Dale	7.8	0.6	0	0	0	0	3.6	3.6
Henry	16.7	8	0	8.5	0	0	0.1	0.1
Barbour	135	2.5	82.3	49	0	1.2	0	0
Bullock	0.9	0	0	0	0	0	0	0.9
	3139.1	372.02	400.2	72.5	0	209.3	857.51	1227.57

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