Thank you to all who made it to this year’s meeting at the Kirbo Center in Bainbridge, Georgia. We were pleased that over 100 participants were able to attend, particularly considering the budget constraints currently placed on travel. Dr. Whit Gibbons from the Savannah River Ecology Lab, our keynote speaker, kicked the meeting off with a fascinating presentation on unique aspects of turtle eye characteristics, upland snake research, and what we still don’t know about herps. Thanks also to the 28 speakers (including ten students) that presented on topics including upland snake ecology/conservation, habitat management/restoration, and of course, gopher tortoise and commensal ecology/management. These presentations, along with the three student poster presentations, exemplified the great work that biologists are continuing to do range-wide for gopher tortoise and upland species conservation. Congratulations to this year’s best student presentation winners (1st place: Mark Margres-FSU, 2nd place: Kim Sonderman-UGA, 3rd place: Jess McGuire-UGA) and best poster winner (Bess Harris-UGA). Everyone was in agreement that this year’s student presentations were among the best ever! This year we were able to award $100 student travel grants to Angie Getz (USM) and Josh Scholl (FAU) and we have funds ear-marked for two student travel grants next year.

I would like to give a big thanks to all the wonderful volunteers who made this year’s meeting run smoothly. Tom Baldvins did a fantastic job working the AV, downloading presentations, working the lights, and a million other behind-the-scenes duties (including keeping me sane). Sasha Greenspan seamlessly worked the registration desk. Thanks to Becky Bolt, Laura Jewell, and Stephanie Weiss for setting up and running a very successful silent auction. We raised $734 toward student and education grants thanks to the meeting participants’ numerous donations and generous bids. Thanks to Cyndi Gates and Becky Bolt for the great job moderating sessions. Last but not least, thanks to Don Stillwaugh, Lora Smith, Jess McGuire, Ashley Free, Rachel King, Beth Schlimm, Joan Berish, and Ron Concoby for providing guidance and additional help running the meeting.

Thanks to Providence, Environmental Services, Inc., and the Jones Ecological Research Center for sponsoring this year’s meeting. Their generous donations helped to keep meeting costs down.

Congratulations to Eddie Herrmann who received the 2012 Auffenberg and Franz Conservation Award for his long term support of gopher tortoise and rattlesnake conservation. Eddie is one of the founders of the San Antonio (FL) Rattlesnake Festival, which is a wildlife friendly event (no snakes harmed!). He also designed artificial tortoises for use in races, rather than using live tortoises. John Jensen did a great job with the awards presentation.

Congratulations also to Bill Knox who received the 2012 GTC Distinguished Service Award for his outstanding job as GTC’s membership secretary.

I would like to thank our outgoing co-chair, Ron Concoby, for his wonderful service to GTC over the last two years. Ron has promised to stay active within the Council so we look forward to his participation down the road. Farewell to state representatives, Beau Gregory (Louisiana) and Eric Fann (South Carolina). Thank you for your service to the Council and your thoughtful updates on the status of the gopher tortoise in your respective states.

Finally, I’d like to give a big tortoise welcome to our newest board members. Rachael Sulkers was elected as our new incoming co-chair. We also elected two new state representatives, Keri Landry (Louisiana) and Brett Moule (South Carolina). All three bring enthusiasm and some great new ideas to GTC and I am looking forward to working with them, our senior board members, and all of our membership, towards having an outstanding year ahead.
Alabama is the only state in the range of the gopher tortoise to have both federally listed and non-listed populations, with Mobile, Washington, and Choctaw counties comprising the listed portion of the range. The following activities were reported by a variety of agencies involved in tortoise conservation efforts in 2012.

Auburn University/Alabama Natural Heritage Program Statewide Gopher Tortoise Study

A State Wildlife Grant titled *Study of Distribution, Abundance, and Health Status of the Gopher Tortoise in Alabama* will be implemented by the Alabama Natural Heritage Program. Over a three year period, basic data will be acquired related to the current distribution 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 and recommendations will be developed on translocation of tortoises, including donor and recipient sites and methodologies for translocation protocol. Additionally, blood samples will be collected to evaluate health, body condition and disease status of all gopher tortoises handled to determine if these factors contribute to an increase in movement, thus, directly correlated with increased mortality. Funding through this project will help to support Jeff Goessling, a PhD student in Mary Mendonca’s lab. Jeff will be handling the health aspects of this project. Sources: Jim Godwin, Mark Sasser.

Auburn University/Alabama Natural Heritage Program/Conecuh National Forest Eastern Indigo Snake Repatriation Project

Indigo snake releases have taken place on the Conecuh National Forest for three years, and are planned to continue for several more. Of the 2011 and 2010 releases, six snakes (three from each year) continue to be radio-tracked. Reproduction of released snakes was documented in the spring of 2012 with two females having laid viable clutches yielding four and five hatchlings. Thirty-one young indigo snakes were released in May 2012 including 24 with transmitters. Nineteen of these continue to be tracked. Two have died, one lost the transmitter, and two signals have been lost. Sources: Jim Godwin, Jimmy Stiles.

Fort Rucker (Dale and Coffee counties)

With over 40,000 acres of suitable habitat, Fort Rucker likely has the second largest gopher tortoise population on publicly owned lands in Alabama, exceeded only by Conecuh National Forest. Last spring CH2MHILL biologists surveyed Fort Rucker’s gopher tortoise population utilizing the Line Transect Distance Sampling method. Nearly 27 miles of transects in high quality habitat (8,564 acres) and moderate quality habitat (32,993 acres) yielded 41 active and eight inactive burrow observations, of which 25 were confirmed occupied. Extrapolating to the entire 41,557 acres of moderate and high quality habitat, the total estimate of gopher tortoises on Fort Rucker was given as approximately 10,135 individuals, or 0.24 tortoises per acre of suitable habitat. Source: Danny Spillers, Ft. Rucker.

Alabama Dept. of Conservation and Natural Resources (ADCNR), State Lands Division

A gopher tortoise mitigation site in northwest Mobile County has required extensive habitat improvements in order to comply with the federal guidelines. Currently, 200 of the 1,010 total acres are compliant with federal requirements and an additional 600-800 acres should be compliant within the next two years. Some areas of the property are being used to test different herbicide formulations for cogongrass control. State Lands is beginning longleaf restoration on a 500-acre upland site at Upper Delta Wildlife Management Area, transitioning this area from plantation loblolly to longleaf. This area has a small gopher tortoise population surviving in very marginal habitat. Recently, biologists discovered a very small gopher tortoise population within a recently protected Red Hills tract in north Monroe County, in a small ridge of longleaf above a Red Hills salamander ravine. This has prompted restoration plans for that site as well. Source: Jeremy Doss, ADCNR-SLD

Keep track of Gopher Tortoise news and Council updates! Find us on-
Alabama cont’d

Fifty-seven gopher tortoises were repatriated to the 1,000 acre State Lands-managed Wehle Forever Wild Tract in Bullock County between 2006 and 2009. The tract is burned on a 2-year alternating cycle. Decades of regular burning has resulted in the tract having a diverse herbaceous cover dominated by grasses and forbs. Invasive exotic species are spot-treated, specifically minor infestations of Lespedeza bicolor. As a result, the Wehle tract supports sizeable populations of species representative of the open pine community including southeastern pocket gophers, Bachman’s sparrows, eastern kingsnakes and coachwhips. The repatriation of gopher tortoises on the tract complemented this suite of species, and biologists are currently reevaluating the status of the artificially established population. They have surveyed and marked all tortoise burrows within the property boundaries and at the time of this report were in the process of trapping all active burrows to determine which of the 57 individuals still remain on the tract and to document their respective movements from their original release sites (pens) on the property. They have documented tortoise recruitment on the tract with the discovery of a juvenile-sized burrow and depredated egg shell fragments on the apron of one of the burrows. Eric Soehren will report final results at an upcoming meeting (either the next SEPARC or 2013 ALAPARC).

Two long-term upland snake trap arrays are being established on the Wehle Tract. Plans are to monitor these traps daily over a long duration to inventory and monitor herpetofauna. Snakes will be marked for population monitoring. Future management plans call for exploring the possibility of establishing Gopher Frogs on the tract. Source: Eric Soehren

ADCNR Division of Wildlife and Freshwater Fisheries (DWFF)

Since 2007 the Landowner Incentive Program (LIP) for Longleaf Pine Ecosystem Restoration has restored 7,300 acres of longleaf pine in Alabama. All projects implement a prescribed burning program on a rotation of every 3-4 years. For 2012 longleaf projects approximately 1,900 acres will be restored. In July, DWFF was awarded a Competitive State Wildlife Grant in the amount of $874,327 for longleaf pine ecosystem restoration. This will be a three year project – approximately 4,500 acres will be restored on private lands, 276 acres on the Barbour WMA and 475 acres on the Coosa Forever Wild Tract. The private lands component of this grant will be treated in the same manner as previous LIP projects and will begin cost sharing on 2013 projects.

DWFF also received a $150K Competitive Landscape Partners for Fish & Wildlife grant that will be administered through LIP for longleaf restoration. Source: Traci Wood

Natural Resources Conservation Service (NRCS)

The Gopher tortoise habitat improvement component of the Working Lands for Wildlife program started in April and was well received, with $3 million divided among 151 contracts on 43,000 acres (averaging almost $20,000 per contract, or $70/acre). Source: Jeff Thurmond, NRCS.

Gopher Tortoise Health Working Group

The Gopher Tortoise Health Working Group (GTHWG) had their first meeting at the Gopher Tortoise Council Annual meeting on October 5th, 2012, in Bainbridge, Georgia. Eighteen people were in attendance to kick off this effort. The overall goals of the group were outlined and it was agreed that the development of a database would be an effective way to monitor the distribution of seroprevalence of Mycoplasma spp. and other pathogens. It was also suggested that populations documented to have tortoises with clinical signs consistent with upper respiratory tract disease (URTD) be included as well.

We are attempting to compile the following information:

1) Current list of grad student projects related to population health (can include commensals)

2) Researchers/ Laboratories running diagnostics (please provide fee schedule)

3) Researchers/ Laboratories with interest in collaborating

4) Serology results for development of a database (please email for more detailed information)

5) List of veterinarians and rehabbers experienced with treating gopher tortoises (in each state)

If you want to participate, please contact Jess McGuire (jgonynor@gmail.com). Your name will be included in future GTHWG correspondence and you will be added to the website.
After having been classified as a Species of Special Concern in Florida for nearly three decades, the gopher tortoise has been classified as Threatened since 2007 when the first official management plan was completed. The plan is updated every five years and much of this year has been consumed by extensive revisions to the original plan. The revised plan was approved in September by the Commissioners of the Florida Fish and Wildlife Conservation Commission (FWC) and includes updates to the overall goal, objectives, and actions. The revised goal is to restore and maintain secure, viable populations of gopher tortoises throughout Florida so the species no longer warrants listing. The four objectives are more straightforward and easier to understand than those in the original plan: minimize the loss of tortoises; increase and improve tortoise habitat; enhance and restore tortoise populations; and maintain the tortoise’s function as a keystone species. The latter objective is reflected in a new chapter devoted to conservation of commensal species. Other areas of emphasis in the revised plan include landowner incentives, detailed habitat management guidance, expanded monitoring, and disposition of waif tortoises. The plan can be accessed by going to the website www.myfwc.com/gophertortoise and then selecting “Management Plan”.

In an exciting collaborative undertaking, the FWC is working with the South Carolina Department of Natural Resources and chelonian researchers, Tracey Tuberville and Kurt Buhlmann, to restock waif tortoises from Florida to the Aiken Preserve. Initial reports are that the tortoises are settling in to their new surroundings in this well-managed sandhill habitat.

The FWC continues to work on range-wide gopher tortoise conservation issues including the Candidate Conservation Agreement (CCA) which is a voluntary partnership with the U.S. Department of Defense, non-governmental organizations, and the states in the non-listed range of the gopher tortoise. The parties to the CCA have adopted Line Transect Distance Sampling (LTDS) as the range-wide standardized monitoring protocol for gopher tortoise population monitoring. It is anticipated that this standardized methodology will be implemented in Florida on state-owned conservations lands in 2013. The LTDS handbook is available at the following website: www.fws.gov/southeast/candidateconservation/PDF/GTSurveyHandbook.pdf.

As part of our outreach efforts, FWC and others within Florida helped create a DVD, “Save Space for the Gopher Tortoise” which features the natural history and conservation of gopher tortoises. This 2012 TV program is part of the “Wildlife Matters” series and shows interviews with several GTC members. This DVD can be obtained by contacting Tracy McCommon (email: naturewisetv@gmail.com).

The FWC internal tortoise team is currently updating and revising the permitting guidelines for gopher tortoise relocations. Following input by the tortoise stakeholders and other interested citizens, we hope to present the revisions to the Commissioners next spring.

A number of gopher tortoise research projects are underway in Florida and several are focusing on relocation efforts. Matt Aresco and MC Davis at Nokuse Plantation in the Panhandle have accepted over 2,600 tortoises in the last six years and are seeing recruitment and good response from using enclosures to increase site fidelity. One of the take-home messages is that positioning starter burrows immediately along enclosure fences appears to increase burrow use and decrease initial predation by coyotes and other varmints. Unfortunately, such positive results are not being observed on a cattle pasture relocation research site in west-central Florida. Recruitment is minimal and the recipient site is being abandoned by adult tortoises that can escape the enclosures; relatively high mortality is occurring when tortoises are confined to these pastures. The problem appears to be the habitat per se and not necessarily the cattle. More information will be forthcoming soon on these and other relocation studies.

A number of GTC members have been collaborating with their desert tortoise counterparts to create a book on North American tortoises that will cover all five species. I’ve been working with long-time desert tortoise researcher, Phil Medica, on a home range chapter. This book has moved forward at a tortoise’s pace, but hopefully will be published by Johns Hopkins early next year.
Gopher tortoise surveys in Georgia continued. Many groups have hit the ground in an effort to determine the population sizes of many gopher tortoise populations throughout Georgia. In addition to the gopher tortoise, work on commensal species has continued as well.

Below are some highlights submitted by state biologist, John Jensen, of the Georgia Dept. of Natural Resources (GADNR).

**Gopher Tortoise and Eastern Indigo Snake Surveys**

In 2011 the Nongame Conservation Section funded gopher tortoise population inventories at 17 sites, mostly on private lands, to determine tortoise population sizes and demographics. As with previous years’ inventories, line transect distance sampling was used to derive tortoise density and abundance. Sites were also evaluated for habitat suitability and potential as areas where gopher tortoises could be relocated to augment the population. To date, 31 sites in Georgia have been inventoried for tortoises and an additional 12 sites are slated for surveys in 2013.

Eight of the sites surveyed in 2011 had estimated tortoise populations in excess of 250 individuals, a number the U. S. Fish and Wildlife Service has established as the minimum to ensure a long-term, sustainable population. A tract previously identified as having an unsustainable population size in its current state, Yuchi Wildlife Management Area, has been established as a recipient site for tortoises displaced by development elsewhere. To date, 36 tortoises have been released at Yuchi WMA and radio-telemetry conducted on ten of them has shown strong fidelity to the release site. Future augmentation efforts aim to bring the combination of native and translocated tortoises to a population total in excess of 250 individuals.

In another study funded and supported by GADNR, The Orianne Society, a nonprofit organization dedicated to conserving rare reptiles and amphibians, is conducting a field study to determine population trends of the imperiled eastern indigo snake. In southern Georgia, indigos overwinter in xeric sandhill habitats where they den in the deep, long burrows of gopher tortoises. The study is focused on the Altamaha River basin, considered a population stronghold for this federally threatened species. During 2012, the study’s second year, staff surveyed 40 sandhill sites on public and private lands in the basin. Indigo snakes were detected at 20% of the sites, a slight increase over the initial year’s detection rate (18%). Several sites in which indigos were not detected in the first year had detections in the second, and vice versa, which could be due to differences in detectability between years caused by weather, random chance, or actual changes in occupancy by the snakes. Planned long-term monitoring of these sites will help inform us as to the cause of detectability changes and how persistent indigo snake populations are at these sites.

**Gopher Frog Restoration**

State-listed as rare, gopher frogs depend on intact sandhill habitats where adults survive within the burrows of their namesake host, the gopher tortoise. However, these frogs also require nearby fishless wetlands where they breed and their tadpoles develop. Because of widespread upland and wetland habitat alteration throughout their range, gopher frogs are now limited to fewer than 10 sites in Georgia.

In 2007, the Nongame Conservation Section began a project that involved collecting gopher frog eggs from two healthy populations. Following efforts to rear them to late-stage tadpoles or post-metamorphic froglets, the animals were released at an unoccupied but high-quality protected site at Williams Bluffs Preserve in Early County, which is within the species’ historical range. The goal: Establish a self-sustaining breeding population of gopher frogs, a range-wide first for this imperiled amphibian.

In 2012, in partnership with Atlanta Botanical Garden, University of Georgia, The Nature Conservancy, Zoo Atlanta, and the Joseph W. Jones Ecological Research Center, 425 juvenile gopher frogs were released, bringing the six-year total released at Williams Bluffs to 4,316 individuals. Extensive drought left the release pond completely dry in 2012, complicating our efforts. Rather than releasing juvenile frogs into the pond, frogs were released directly into gopher tortoise burrows in the surrounding uplands. We had hoped to monitor breeding success of returning adult gopher frogs, but the lack of water prevented any breeding activity this year. Gopher frogs are fairly long-lived and periodic drying of their breeding ponds is typical. We will flip the page on the calendar and reschedule monitoring of breeding activity for 2013.
The Louisiana Department of Wildlife and Fisheries (LDWF) is continuing to work towards determining a more accurate population estimate and distribution for tortoises and improving key habitat areas on private and public lands. Our primary tortoise concentrations located on Sandy Hollow Wildlife Management Area (WMA), Ben’s Creek (Weyerhaeuser Timber Company), Lee Memorial Forest (Louisiana State University Agricultural Center) and major pipeline right-of-ways have been surveyed and burrow status assessed (272 burrows). Additional juvenile burrows have been noted on Sandy Hollow WMA and eggs and nest remnants were found in two burrows on a major right-of-way in August 2012. We will continue to contact landowners and survey private and public property in an effort to update the gopher tortoise element occurrence records in our database and assess habitat conditions. Approximately 50 new burrows have been located in scattered areas within the tortoise’s range in the state. We are making progress with our burrow camera surveys to determine the burrow occupancy rate and intend to scope all known burrows in Louisiana. So far, 58 burrows have been scoped with 25 of these occupied by tortoises.

It has been a busy year for “waif” tortoises in Louisiana. Our two-acre release pen at Sandy Hollow WMA originally held five tortoises. Sadly, only one adult male remains in the pen from the initial release. Two tortoises escaped, one was most likely depredated by a coyote, and one died of an unknown cause. Two additional adult males were released in the pen in September 2012. One adult female is currently at the LSU Vet School and one adult male and female are at the New Orleans Audubon Zoo and will be released pending results of Mycoplasma testing. One hatchling tortoise is currently being cared for by Bluebonnet Swamp Nature Center and will most likely be released in 2013. The number of “waif” tortoises has been steadily increasing over the past few years so we will attempt to increase tortoise education/outreach for citizens range wide in the state.

We are working with landowners and managers to improve priority habitat for tortoises (> 2,800 acres) on private and public property. Approximately 400 acres of upland pine forest being restored on private lands is adjacent to Sandy Hollow WMA (well managed longleaf pine habitat). We intend to enroll over 6,000 acres in our East Gulf Coast Prescribed Burning Initiative during the upcoming year focusing primarily on upland pine habitat and improving habitat for tortoises on private property. Since the majority of our burrows occur on private lands, our primary focus is assisting private landowners with restoration and management to increase the amount of quality habitat available for tortoises and hopefully expand our population in the future.

Wanted: Ticks from tortoises and tortoise burrows!

Jessica McGuire is a PhD student at the University of Georgia studying Gopher Tortoise Ticks. She would like your help with a chapter of her dissertation! She is looking for reports of ticks on tortoises. If you have consistently found ticks on tortoises and you are willing to provide her with the data email her at jgonynor@gmail.com. Picture vouchers are appreciated; ticks shipped in vials would be excellent. Please email her for more information.

Did you know...

The effort to save gopher frogs in Georgia was the focus of a “Georgia Outdoors” episode that can be seen at http://www.gpb.org/georgia-outdoors/season-19/episode/a-fight-for-frogs

Gopher Frog efforts were also a focus of a recent Georgia Wild E-Newsletter that can be accessed here: http://www.georgiawildlife.org/node/3151. Go to http://www.georgiawildlife.org/news/e-newsletters to sign up for the Georgia Wild E-newsletter.
Mississippi

Status Overview

Several federal initiatives intended to reverse degradation of tortoise habitat are underway with assistance for restoration and management of longleaf habitat on state and private lands (see accounts below for Natural Resource Conservation Service (NRCS) and Mississippi Dept. of Wildlife, Fisheries and Parks (MDWFP). In spite of these efforts populations continue to decline from: 1) habitat destruction and fragmentation; 2) habitat degradation due to fire suppression/seasonally inappropriate fire, excessive tree stocking densities, indiscriminate application of herbicides on industrial forestry lands and in ROW corridors, and exotic invasives such as cogon grass; 3) recruitment shortfall due to a combination of excessive predation of nests and young by non-native predators (fire ants, armadillos) and mammalian predators such as raccoons, coyotes, and dogs, potential reproductive senescence and inadequate mating frequency; and 4) road mortality of adults.

Tortoise Research

Headstarting Project at Camp Shelby—Jim Lee (The Nature Conservancy, Tortoise Biologist) Camp Shelby Joint Forces Training Center (JFTC).

Jim, assisted by Donald Newman, III, is tracking the eight remaining survivors of 176 juvenile tortoises produced and released during Matt Hinderliter's tortoise head-starting experiment (hatching yrs: 2006 (4); 2007 (1); 2008(3)). They also conduct tortoise surveys for the Mississippi Army National Guard prior to mowing of ranges and firing points.

Metabolic Bone Disease (MBD) in Gopher Tortoises in Enclosures at Camp Shelby JFTC and on Public Forestlands of South Mississippi: Potential Influences of Physiological, Pathogenic, Genetic, and Habitat-related Factors—Jeanne C. Jones and Nicole Hodges (MSU Dept. of Wildlife and Fisheries), Matt Hinderliter (USFWS), and Debra Lee Miller (University of Tennessee).

Initial investigations encompass soil and forage nutrient analyses (particularly calcium and its availability) to assess potential relationships between metabolic bone disease (MBD) in gopher tortoises at the following study sites: a) the 0.2 ha headstart enclosure at Camp Shelby, b) habitat adjacent to this enclosure, and c) public forestlands inhabited by gopher tortoises and under differing fire management regimes. Additional research will be focused on the extent of disease occurrence in free-ranging tortoises on suitable and priority soil areas under various management regimes, including different fire management, herbicide vegetation management, and fire ant control measures. This research will include assessment of occurrence of MBD as disease incidence relates to genetic and age class structure, metabolic and physiological pathways, and possibly pathological and/or toxicological agents. Nicole Hodges began initial investigations this year and presented preliminary results of this study at the GTC Annual Meeting: “Soil and Forage Quality and Metabolic Bone Disease in Gopher Tortoises in South Mississippi.”

Tortoise Genetic Population Structure—Daniel Gaillard (University of Southern Mississippi-USM) and Chris Flood.

Collected tortoise feces for an analysis of gut microbial communities of the tortoise and how these communities may differ based on habitat and locality. Daniel gave a presentation on this research at the 2012 GTC Annual Mtg.: “What the Crap?!: Description and Comparison of Gopherus polyphemus Gut Microbial Communities”. He has also completed a range-wide population genetics study of the gopher tortoise and found support for the existence of five principal subpopulations with a fine-scaled genetic structure analysis within each.

Angela Getz, Daniel Gaillard, Aaron Holbrook, Brian Kreiser, and Carl Qualls (USM) studied tortoise parentage at a Mississippi site with high recruitment success (the Hillsdale Community population). Angie presented their results at the 2012 GTC Annual Mtg.: “Parentage Assessment of a Population of Gopher Tortoises in Hillsdale, MS.”

Tortoise Fitness Correlates—Aaron Holbrook (USM)

In 2010 and 2011, eggs were sampled from tortoise colonies at the Hillsdale Community at Camp Shelby (the T-44 Preserve). Hatchlings produced were used in experiments involving assays of physiological/behavioral/genetic correlates of possible differential fitness between the sites with high and negligible recruitment success, respectively. Among the fitness attributes measured are growth rate, burrowing ability, and survivorship (in captivity and post-release). The experiment continues with monitoring of telemetered tortoises at release sites. A loss of five tortoises was due to dog depredation.

“Student Spotlight”  GTC wishes to solicit graduate and undergraduate nominations concerning students who are actively involved in upland conservation projects within the gopher tortoise’s range. The purpose of this feature is to encourage greater student participation in the organization and bring recognition to students and their projects. Projects pertaining to research, management, or policy will be considered. Please submit a brief description of the project and any findings to date. Submissions should be 500 words or less and may be accompanied by a photograph(s). Please send to: cygates@ufl.edu
Mississippi cont’d

Tortoise Habitat Management

DeSoto Ranger District (DRD) - Ed Moody (DRD Biologist)
Prescribe burned 50,000 acres (27,000 dormant and 23,000 growing season (primarily early growing season))
Treated 2,000 acres of brush and hardwood midstory with herbicide
Treated 150 acres of cogon grass
Thinned 1,500 acres of longleaf

Chickasawhay Ranger District (CRD) - Stephanie Steele (CRD Biologist)
Prescribe burned 26,400 acres (8,176 dormant, 18,224 growing season (primarily early growing season))
250 acres of midstory hardwoods were suppressed with hack-and-squirt treatment.
3 adult tortoises were killed by vehicles on gravel roads.
The CRD is considering designation of one particularly large priority soil site upon which regeneration of longleaf has been particularly slow—the “Gopher Farm” site-- as a Research Natural Area.

Natural Resources Conservation Service (NRCS)-Glynda Clardy, State Wildlife Biologist, Jackson, MS.
The NRCS administers three programs offering assistance (technical and financial) to landowners interested in restoration and management of longleaf pine habitat:
- Healthy Forest Reserve Program (easement): 310 acres in FY 2013
- Wildlife Habitat Incentive Program (WHIP)
  - Working Lands for Wildlife (includes Gopher Tortoise Initiative): 79 contracts- 7,123 acres.
  - Cooperative Conservation Partnership Initiative: 38 contracts- 1,825 acres.
- Environmental Quality Incentive Program (includes Longleaf Pine Initiative): 10 contracts- 973 acres

MDWFP-Marion County Wildlife Management Area (WMA)
The MDWFP was awarded a State Wildlife Grant from the US Fish and Wildlife Service (FWS) to enhance wildlife habitat in Marion County WMA’s longleaf pine forests. Funds have been used to improve firebreaks on the WMA to facilitate expansion of prescribed burning. Some funds were used to apply selective herbicides on 700 acres of longleaf pine stands. Treatment areas will be prescribe burned in spring 2013. The Marion WMA includes the largest population of tortoises on state land and is in the extreme northwestern edge of the listed range.

MDWFP continues the Fire on the Forty partnership with the Foundation for Mississippi Wildlife, Fisheries and Parks and the FWS, which provides cost-share for prescribed burning on private lands. This program reimburses landowners in selected counties for up to 50% of costs for implementing and performing a prescribed burn. These focal counties include Walthall, Marion, Lamar, and Pearl River in South MS.

Private Land
Cecilia Charles and Steve Hesper are thanked for their ongoing proactive management for small but growing tortoise populations on their properties in Stone and Pearl River counties, respectively.

Surveys
Sandhill Surveys for Tortoises, Harvester Ants, and Oldfield Mice-Tom Mann (MS Museum of Natural Science).
Rare species surveys continued on sandhills in Jasper, Lamar, Clarke, Perry, Wayne, Stone, and Pearl River counties. Previously unrecorded populations of tortoises were documented at four sites in Wayne and one in Jasper County. Of 37 discrete sandhill populations of harvester ant populations documented by myself and others on the mainland of MS since 2006, two have disappeared (Perry and Lamar counties), but in 2012 one previously undocumented population is reported from Camp Shelby. Two additional oldfield mouse populations were documented (Jasper Co.; Wayne Co.).

The DeSoto National Forest will begin the next of its five-yr interval comprehensive tortoise surveys on priority soils (one year overdue) in 2013.
Mississippi cont’d

Biological Opinions/Development of Rangewide Conservation Strategy Initiated

U. S. Fish and Wildlife Service, Jackson MS Field Office-David Felder and Matt Hinderliter

Two biological opinions were issued: 1) for a residential development in Harrison Co. where one isolated tortoise will be moved to the Chickasawhay Tortoise Mitigation Bank (probably in 2013), and 2) for the Wiggins Airport Expansion, which will result in the onsite relocation of up to 17 tortoises, and destruction of a significant zone of priority soil (must be graded to meet FAA standards). This site is exceptional for tortoise recruitment (and tortoise ticks and harvester ants!) where 105 burrows have been mapped, mainly in the mown ROW along the runway.

The Chickasawhay Tortoise Mitigation Bank continues to be in compliance with the banking agreement with ongoing management, but only eight tortoises have been relocated to the bank since it was established in 2010.

Matt Hinderliter conducted a Webinar to develop a range-wide conservation strategy for gopher tortoises.

In other news...

Three waif and one nuisance tortoise (removed from a cemetery!) were relocated to managed sites by Jim Lee, Kathy Shelton, and Tom Mann. An adult female tortoise materialized in inappropriate habitat (and outside the known range) in Lauderdale Co., tested borderline for URTD, and is being held at a rehab facility until she can be retested. Ren Lohoefener, in petitioning the USFWS to list the species in the western part of its range, stressed the significance of DOR mortality in negating effective recruitment. Dr. Karen Rushing, Dr. James Askew, Alison Sharpe, and Missy Dubisson are again thanked for long-term services in rehabilitative care of several tortoises.

Thank you to our GTC 2012 Annual Meeting Banquet Dinner Sponsor!
The most substantial event that occurred this past year was the memorandum of understanding established between the Florida Fish and Wildlife Conservation Commission (FWC) and the South Carolina Department of Natural Resources (SCDNR) to restock waif tortoises from Florida to the Aiken Gopher Tortoise Heritage Preserve (AGTHP). As a result of this effort, 58 gopher tortoises were transported from Florida to AGTHP in early summer, measured, weighed, the sex determined, and the shell marked. All waif tortoises have excavated either existing starter burrows or have established new burrows. Little sign was observed of any tortoises walking the perimeter of any of the pens. Scat and browsing signs were documented during several site visits. Efforts have begun to establish three new holding pens at AGTHP.

Another significant accomplishment was the acceptance of the following article by Chelonian Conservation and Biology: Grosse, A.M., K.A., Buhlmann, B.B. Harris, B.A. DeGregorio, B.M. Moule, R.V. Horan, and T.D. Tuberville. In press. Nest Guarding in the Gopher Tortoise (Gopherus polyphemus).

Radio-tracking continues on AGTHP. The SCDNR/Savannah River Ecology Lab (SREL) gopher tortoise team is collecting data on thirteen tortoises that were outfitted with telemetry radios and are being tracked to determine home range, habitat use, and seasonal movement patterns. Site fidelity following the collapse of this first pen remains relatively high with only a few gopher tortoises moving to adjacent sections of the heritage preserve.

Land acquisitions continue at AGTHP. An appraisal and contract were completed for an additional 75-acre tract adjacent to the heritage preserve. After the completion of this acquisition, the property will be approximately 1,700 acres in size.

Brett M. Moule anticipates completing his doctoral research by next summer which includes a chapter that looks at a side-by-side comparison of which cultural practice (prescribed fire, herbicide and mechanical mastication) will provide the optimum forage for the gopher tortoise.

SCDNR staff coordinated the burning of approximately 500 acres at AGTHP and 500 acres at Tillman Sand Ridge Heritage Preserve. Also, approximately 300 acres of herbicide treatment was completed at AGTHP.

Domesticated and/or feral dogs are becoming an issue at AGTHP. Several burrows and radio transmitters were damaged by canids. One gopher tortoise was found with canid damage to its right front claw. It was sent to the Georgia Sea Turtle Center for surgery where it is recovering well. Most adults would be able to handle canid harassment; however, there is concern about juveniles and hatchlings. Consequently, SCDNR, in conjunction with SREL staff, have successfully designed several 10’x 30’ juvenile release pens to protect gopher tortoise hatchlings from predation. (see photos below)
PUBLIC INFORMATION AND EDUCATION

2012 Larry Landers Student Research Awards

The J. Larry Landers Student Research Award is a Gopher Tortoise Council competitive grant program for college students. Proposals can address research concerning gopher tortoise biology or any other relevant aspect of upland habitat conservation and management. This is an excellent opportunity for undergraduate and graduate students to access funding for their projects. Dr. Bob Herrington and the Research Advisory Committee again had the pleasure of reviewing student research award applications. Each recipient was awarded $1,000. And the winners are...

1. Investigating linkages between habitat condition and snake species richness in the Coastal Plain of Georgia - Elizabeth M. Schlimm, B.S. University of Georgia

2. Characterization of Cryptic Kin Structure in Female Gopher Tortoises (Gopherus polyphemus) at Archbold Biological Station - Michael L. Yuan. Cornell University

3. Relationships of Gopher Tortoise Gut-Microbial Communities with Soil Microbial Communities and Nutrients - Daniel Gaillard. University of Southern Mississippi

Congratulations to all!
Paid Gopher Tortoise Internships in Florida
(Spring-Summer 2013)

The Herpetology Program at Archbold Biological Station (ABS) will be hiring several graduate and undergraduate interns to support research, education, and habitat restoration efforts for Gopher Tortoises on the Lake Wales Ridge in south-central Florida.

Founded in 1941, ABS is an independently operated field station that hosts a dynamic community of in-house and visiting scientists and students throughout the year. Dozens of rare plant and animal species, including Gopher Tortoises, Eastern Indigo Snakes, Gopher Frogs, and Florida Sand Skinks, occur on the 8,840 acres owned and managed by ABS.

With support from Disney Worldwide Conservation Fund, the Gopher Tortoise interns will participate in research on the demographic responses of tortoises to restoration of upland scrub habitat by assisting with capturing, measuring, and marking tortoises and conducting burrow surveys in habitats being restored with prescribed fire. Interns will also have opportunities to hone their outreach and communication skills by presenting information about tortoises and scrub ecology to children and the broader public.

Graduate intern positions (2): In exchange for room and board at ABS and a stipend of $125-$150 per week, graduate interns will spend 20-30 hrs per week supporting this project. The remaining time will be used to develop and implement an independent research project on some aspect of Gopher Tortoise ecology or behavior. Total length of the internship is approximately 5 months beginning in March 2013.

Undergraduate intern positions (3-4): Undergraduate interns will receive a weekly stipend of $70-$85. Occasional lodging at the Station may be provided on an as-needed basis; however, interns will be responsible for costs of transportation to/from ABS. Interns must be available to work 10-12 hrs/week for at least 10 weeks between April-August 2013; exact start and end dates flexible. Preference will be given to students residing in south-central Florida.

For additional details and application instructions, go to:
or contact Dr. Betsie Rothermel (brothermel@archbold-station.org).

Review of applications will begin December 20, 2012.
Directory of 2012 Gopher Tortoise Council Officers, Committee Chairs, and State Representatives
Please view the GTC website (below) for contact information

Co-chairs
Ron Conoby
Jennifer Howze

Secretary
Connie Henderson

Membership Secretary
Will Knox

Treasurer
Don Stillwaugh

Newsletter Editor
Cyndi Gates

Website Manager
Jessica Gonynor McGuire

Standing Committee Chairs

Nominating Committee
Joan Berish

Public Information and Education Committee
Laura Wewerka Jewell

Upland Snake Conservation Committee
Jayme Waldron and Kimberly Andrews

Research Advisory Committee
Bob Herrington

State Representatives
Alabama
Mark Bailey
Florida
Joan Berish
Georgia
Jessica Gonynor McGuire
Louisiana
Beau Gregory
Mississippi
Tom Mann
South Carolina
Eric Fann

The Tortoise Burrow

http://www.gophertortoisecouncil.org

Reprint Policy: Articles, photographs or opinions that appear in The Tortoise Burrow may be reprinted with the written consent of the editor and GTC Co-chairs.

The GTC reserves the right to approve editorial changes prior to reprinting and requests that reprints credit The Tortoise Burrow, Newsletter of the Gopher Tortoise Council.

© Gopher Tortoise Council 2012