

**In This Issue:**

- Notes from a Co-chair
- State Reports
- Education Report
- Awards
- Recent Research

**Notes From a Co-Chair****Christian Newman**

I want to thank everyone for their support in attending this year's Annual Gopher Tortoise Council Meeting in early October. We had 113 attendees in a year when I know many people and organizations are struggling financially. It is amazing that GTC is still moving forward after 31 years and this is due to the dedication of those in our all volunteer organization.

This year's conference had a wide range of topics. Friday was focused on the human dimensions of upland and tortoise conservation, with talks ranging from local planning to the federal listing process for tortoises, to effective education and training programs and methods. We rounded out the day with a group exercise that included brainstorming potential ideas for GTC to consider in the next five years for our outreach and education efforts. I will be summarizing that information and will post it on the GTC website.

Saturday was focused on biological and ecological aspects of tortoise and upland conservation with talks on regional sandhill restoration, hatchling survival, indigo snake den selection, and Joan Berish's long term (30 year) population study. The meeting program, with abstracts, is available on the GTC website. I want to thank all of the speakers and poster presenters because their participation at these conferences is vital to the success of GTC. Saturday night ended with food, drink, and music at Austin Cary Forest (photos below) where GTC gave the Auffenberg and Franz Conservation Award to Tom Kaplan and his daughter, Oriane Recanati-Kaplan, for their generous efforts to conserve indigo snakes and their habitat.

... hope everyone enjoyed themselves and I appreciate everyone humoring me by participating in my GTC cheer..."Who Let the Gopher Tortoise Out?!"

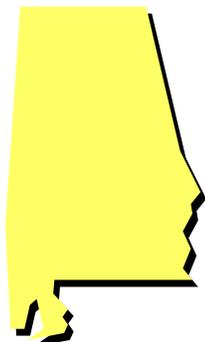


*Christian Newman giving introductory remarks at the annual meeting.*



## 2009 GTC STATE REPORTS

## Alabama



## Mark Bailey

- As was reported in the spring 2009 GTC newsletter, the Alabama Department of Conservation and Natural Resources' Conservation Board approved a regulation prohibiting the gassing of gopher tortoise burrows. The regulation allows the arrest of anyone not only caught in the act of "gassing," but also "attempting to take," defined as possessing in the field equipment such as a hose, gas, and snake catching gear (bag, hook, etc). Offenders do not have to be caught in the act, which makes this a strong regulation and much easier to enforce.
- The Alabama Chapter of Partners in Amphibian and Reptile Conservation (ALAPARC), co-chaired by David Steen and Sean Graham, held its inaugural meeting at the Solon Dixon Forestry Education Center in November 2009 with over 70 in attendance. A number of topics of interest to the GTC were presented. Presentation and poster abstracts can be downloaded from the ALAPARC website.
- Bruce Porter (USFWS) reports a large landfill in Washington County that will require the translocation of about 150 tortoises to conservation banks.
- Nick Sharp of ADCNR State Lands Division (SLD) reports the translocation in 2009 of an additional 23 tortoises to the SLD's Wehle Center property in Bullock County from Ft. Benning (GA) in response to DoD's need to move hundreds of tortoises due to Base Realignment and Closure implementation. This makes a total of 33 tortoises moved to Wehle from Ft. Benning, and will conclude the SLD's receipt of tortoises from there. Elsewhere, while monitoring red-cockaded woodpecker habitat in Coosa County in April 2009, Nick documented the first coral snake from central Alabama in approximately 40 years.
- Craig Guyer's Auburn lab has funding through the ADCNR Division of Wildlife and Freshwater Fisheries (DWFF) State Wildlife Grant Program to do gopher tortoise burrow surveys of Geneva State Forest, Conecuh National Forest, and part of the Perdido River WMA. The overall goal is to work with local land managers to create and/or maintain viable tortoise populations.
- An ongoing eastern indigo snake reintroduction project is a collaboration between Auburn University, ADCNR, GA DNR, GA TNC, Ft. Stewart, Project Orianne, USFWS, and the USFS. This three-year project has been generously funded by a State Wildlife Grant and Project Orianne. Jim Godwin (Natural Heritage Program) reports that two cohorts of juvenile snakes, one from 2008 and 2009, are being held in captivity until reaching a size appropriate for radio transmitter implantation. The anticipated time of the initial release onto Conecuh National Forest is the spring of 2010. To acquire young snakes for the reintroduction effort wild-caught gravid females have been brought into the lab and held until ovipositing their eggs. Once having laid eggs the females were returned to site of capture while the eggs have been retained and incubated in the lab. To date, approximately 80 snakes have been obtained in this manner.



Eastern coral snake



Eastern indigo snake

## 2009 GTC State Reports

## Florida



## Joan Berish

**Status:** The gopher tortoise has been classified as a Threatened species in Florida since 2007, after having been a Species of Special Concern for nearly three decades. A management plan has guided tortoise conservation since 2007. The overall goal of the plan is to restore and maintain secure, viable populations of gopher tortoises throughout the species' current range in Florida. The four objectives under that goal include habitat management, habitat preservation, restocking gopher tortoises, and decreasing tortoise mortality on development sites.

**Management Plan Implementation:** Deborah Burr is the gopher tortoise management plan coordinator for the Florida Fish and Wildlife Conservation Commission (FWC), and is leading the charge to get the plan implemented. The FWC tortoise issue team continues to meet monthly to ensure that management plan tasks are being implemented according to proposed timelines. FWC staff also continues to coordinate with stakeholders through the Gopher Tortoise Technical Assistance group. Former co-chair Boyd Blihovde currently represents GTC on the steering committee of this group. Noteworthy accomplishments related to tasks outlined in the management plan include the following:



*“The FWC tortoise website has been redesigned and brochures on Living with Gopher Tortoises are now available .”*

- Revisions to the gopher tortoise permitting guidelines were approved this past spring. A current open comment period continues until the end of November, and comments can be submitted via email to [GT\\_plan@MyFWC.com](mailto:GT_plan@MyFWC.com) (note underscore between GT and plan in the email address).
- An on-line permitting system has reduced the use of paper and greatly increased efficiency for issuing tortoise relocation permits.
- An interagency working group is drafting guidelines for restocking of tortoises onto public lands where populations have been depleted.
- FWC staff is also drafting internal guidelines for dealing with so-called waif tortoises, i.e., individuals that show up with no locality data and/or may be sufficiently disabled to require maintenance in captivity.
- Eight regional workshops, with nearly 300 attendees, were presented by FWC's new local government coordinator, Tera Meeks. The workshops covered tortoise-related rules, regulations, and permitting guidelines, and emphasized partnering with counties and municipalities to better conserve tortoises.
- The FWC gopher tortoise website has been redesigned, and

## 2009 GTC State Reports

### Florida cont'd

brochures on *Living with Gopher Tortoises* and *Before You Build* are now available. Additionally, FWC has fact sheets on tortoise regulations, permit options, and safety issues for horse owners. Habitat management remains a focus: over \$600,000 was directed towards controlled burns on some 42,000 acres of gopher tortoise habitat.

**Research:** A number of gopher tortoise research projects are underway in Florida, and this list is not all-inclusive:

Matt Aresco is continuing his radio-telemetry study regarding tortoise response to restocking at Nokuse Plantation in the Panhandle; Matt's preliminary findings supported the current FWC requirement of soft-release (temporary enclosures) for off-site relocations.

Both St. Joe Paper Co. and Disney are embarking on gopher tortoise relocation studies that will help hone future relocation requirements.

Paul Moler has finished gathering blood samples for a study of Panhandle tortoise genetics; those samples are currently being analyzed.

Joan Berish conducted a follow-up population dynamics survey of a north Florida tortoise population that was originally studied during the 1980's and 1990's.

Henry Mushinsky, Earl McCoy, and their grad student Bill Hentges are undertaking a project regarding the effect of cattle on relocated gopher tortoises.

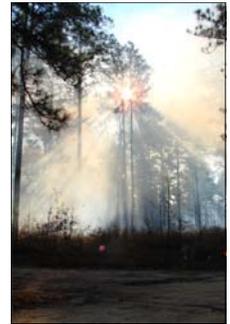
Jon Moore is continuing to monitor URTD in a south Florida tortoise population.

Joe Butler's grad students (Katya Schuster-Barber and William Mailand) at UNF in Jacksonville are monitoring habitat restoration and population dynamics of local tortoise populations.

A unique tortoise population on heavily urbanized Marco Island is being monitored by Florida Gulf Coast University grad student Julie Ross.

UF grad student Vicki Underwood has investigated the effects of an herbicide on gopher tortoise burrow aprons.

Proposed studies for next year include additional population dynamics follow-up surveys, the ecology of tortoises in coastal dune habitats, and the response of tortoises to retention in on-site preserves.



*Smoky sunrise in a long-leaf pine forest.*

*Photo by Aubrey Heupel*

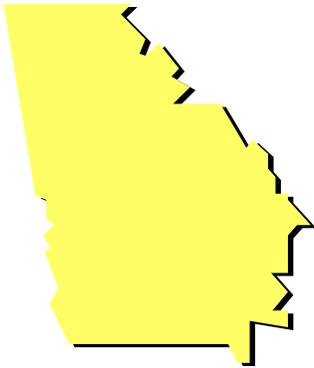


*...tortoise restocking efforts continue at Nokuse Plantation in the Florida panhandle.*

## 2009 GTC State Reports

## Georgia

## John Jensen, Dirk Stevenson and others



**State News:** A Candidate Conservation Agreement with Assurances (CCAA) has been developed jointly by Georgia DNR-WRD, Georgia Power, and USFWS for the repatriation of tortoises to restored habitat at Plant Vogtle, Burke County. The CCAA is currently under review by USFWS, after which, if approved, tortoises may be moved from development sites as they become available.

Two waif tortoises (origin unknown) were relocated to McDuffie Public Fishing Area. Ft. Benning also relocated a number of tortoises (see Alabama State Report).

Georgia DNR contracted the Jones Ecological Research Center to survey and estimate gopher tortoise population sizes (using line transect distance sampling: LTDS) on 19 total sites, including 14 state-owned sites.

The friends group of the Nongame Conservation Section of DNR, The Environmental Resources Network, funded a project titled "Reproductive ecology and offspring survival in translocated gopher tortoises" for the tortoise population on St. Catherines Island. A manuscript will be submitted for publication.

Three GA DNR-WRD publications were produced reprinted and/or widely distributed in 2009. A tear-sheet specific to the gopher tortoise in GA is made available to educators across the state and is regularly set out on tables at pertinent public events. Similar use is given to a Longleaf Pine-Wiregrass Community Access Guide booklet, although it contains information on other animals, plants, and issues beyond just tortoises. A booklet entitled "A Landowner's Guide to Conservation Incentives" is provided to interested private landowners, and although it does not have information specific to gopher tortoises, it does provide excellent information on programs that can assist landowners in managing or conserving their lands for tortoises and other species.

GA DNR-WRD personnel contributed to a booklet produced by the American Forest Foundation: Dunleavy, L. (ed.). 2008. Pine Ecosystem Conservation Handbook for the Gopher Tortoise in Georgia: A Guide for Family Forest Owners. A publication of the American Forest Foundation. 96 pp.

A gopher tortoise profile was featured in the February 2009 WRD-Nongame Conservation Section's monthly e-newsletter: <http://campaign-archive.com/?u=946679e7fe51bbf81ce578cc1&id=695f1e85c3>.



*Jones Center staff during gopher tortoise surveys in southern Georgia.*



## 2009 GTC State Reports

### Georgia con't

Further, the gopher tortoise was a featured animal in the Georgia Conservancy's Great Georgia Photo Swap contest aimed at increasing awareness of Georgia DNR-WRD's Wildlife Action Plan. <http://www.georgiaconservancy.org/index.php?page=gopher-tortoise>.

An account of gopher tortoise was created during this period for posting on the Protected Wildlife of Georgia webpage of GA DNR-WRD's website: [http://georgiawildlife.dnr.state.ga.us/assets/documents/gnhp/gopherus\\_polyphemus.pdf](http://georgiawildlife.dnr.state.ga.us/assets/documents/gnhp/gopherus_polyphemus.pdf)

Georgia DNR is working with the Atlanta Botanical Gardens, Ga TNC, John Maerz (UGA), and the Jones Ecological Research Center on a gopher frog restocking project at Williams Bluffs Preserve. In 2009, 700 metamorphs and 279 late-stage tadpoles were released at a breeding pond.

**Research:** The following research projects are underway in Georgia:

Jessica Gonynor (University of Georgia, Southeastern Cooperative Wildlife Disease Study and Warnell School of Forestry and Natural Resources) is examining gopher tortoise population health and disease ecology in Georgia.

Javan Bauder (Project Orianna) is studying the thermal ecology of eastern indigo snakes to determine how changes to the longleaf pine ecosystem have altered their thermal environment. He is focusing on structural changes in forest vegetation caused by fire suppression and plantation forestry. This is a multifaceted study involving both field and laboratory components. These experiments will help determine the consequences of the body and environmental temperatures observed in the field on indigo snake behavior and physiology, including their metabolism, growth, and egg development. In addition to providing lacking data on the thermal ecology of indigo snakes, these data will be used to determine the suitability of potential reintroduction sites based on the presence and abundance of suitable thermal habitat, particularly thermally suitable overwintering habitat.

Mitch Lockhart's lab (Valdosta State) continues to work at both Reed Bingham State Park (RBSP) and Moody Air Force Base, Georgia. At RBSP, Mitch and Chet Powell (Ga DNR) released approximately 90 brooded hatchlings in October. This marks the second year of this ongoing project and more than 180 PIT-tagged hatchlings have been released to date. They continue to monitor this site 3-5 times per month to attempt to recapture marked tortoises and plan to continue this project indefinitely. With next year's hatchlings, they also hope to perform some behavior experiments prior to release. They are in the fifth year of remote RFID monitoring of adult gopher tortoises at Moody AFB and are currently analyzing volumes of data in hopes of better defining movement and habitat use of tortoises from this military installation. Dr. Colleen McDonough is studying the predatory behavior of armadillos to determine patterns during gopher tortoise nesting season and Dr. Lockhart also has a grad student, Christine Chessler, who is doing behavioral studies on the hatchlings themselves.

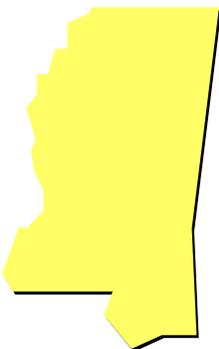
## 2009 GTC State Reports

**Louisiana****Beau Gregory**

The Louisiana Department of Wildlife and Fisheries is working on a USFWS funded project to survey utility ROWs (photos below) throughout the gopher tortoise's range in Louisiana. Most of the focus in 2009 was on planning, mapping, and prioritizing ROWs; however, we were able to get a few miles surveyed. One ROW in particular showed evidence of reproduction and contained approximately twice as many burrows as the previous survey in 1997.

No new populations of Florida harvester ants have been discovered. They are still known from only one location in the state.

There were no tortoise translocations in 2009.

**Mississippi****Tom Mann**

My assessment of the status of the gopher tortoise in Mississippi is one of continuing overall decline. Given the petition to the U.S. Fish and Wildlife Service (USFWS) to list tortoises throughout the remainder of their range, it might be useful to provide those in other states with a brief overview of the effects of listing, as experienced in MS. Federal listing of the tortoise as a threatened species in 1987 has been no panacea for dwindling tortoise populations, though in my opinion it has doubtless slowed the rate of the decline of the species, in part by forcing engagement among the USFWS, the U.S. Forest Service, and the Mississippi National Guard with respect to management of tortoise habitat on federal land, and between the USFWS and the Mississippi Department of Environmental Quality (MDEQ) with respect to mitigation for development within tortoise habitat (development facilitated by a post-Katrina infusion of funds from the Federal Department of Housing and Urban Development to MDEQ in coastal counties). This interaction would be impossible at the state level, where the law protects the species, but not its habitat.

Federal listing (coupled with state listing—but federal infractions can carry a much stiffer penalty) has surely also contributed to a reduction in human take of this species. As evidence of this claim I offer the following

## 2009 GTC State Reports

## Mississippi cont'd

observations from fieldwork over the past two years, during which I have surveyed roughly 200 sandhills (the great majority on private land) while seeking populations of Florida harvester ants, old-field mice, tortoises, Florida rosemary, and other now uncommon sandhill-associated species. Most of the sandhills still have tortoises, though the populations are generally small enough to be vulnerable to quick liquidation by a few diligent pullers. Yet I have seen little evidence of local extirpation even in degraded habitat. Furthermore, the presence of staked and flagged burrows intentionally bypassed during the implementation of industrial forestry techniques indicates that some private firms are attempting to live by the letter of protective regulations.



*Tortoise burrow on dump site east of Buckatunna, MS, where the tortoises may be learning bad habits. The site was discovered by Terry Vandeventer. Over the years, he's found almost every rare sandhill species of interest to us except black pine snakes. He caught a brace of mating coachwhips BENEATH a mattress this year. .*

The gopher tortoise is clearly not approaching recovery in MS; the Gopher Tortoise Recovery Plan defines recovery as attainment of a burrow density of 5 burrows/ha for a period of 30 years on priority soils on the DeSoto National Forest (DNF) and attainment of burrow densities of 3 burrows/ha on priority soils on private lands. During the 2007 survey of burrows on priority soils on the DNF, an overall burrow density of 0.68/ha was found. The 7 priority soil units with the largest tortoise populations and the best percentage of juveniles and subadults had an overall burrow density of 1.5/ha. Overall survey results indicating population stabilization and a modest increase in recruitment are a largely a function of more favorable tortoise demography on these 7 units, and in no way reflect the general condition of tortoise populations on the DNF. Note that Wester's 2004 report on the status of the tortoise at Camp Shelby described a 33% decline in adult tortoises between 1995 and 2003/04. Most priority soil patches on the DNF either support no tortoises or only adults.

As noted in previous state reports, threats to the tortoise in MS include fire suppression; near-absence of seasonally appropriate fire; predation of eggs and/or small juvenile tortoise by the

## 2009 GTC State Reports

### Mississippi cont'd

non-native fire ant and armadillos, and subsidized native predators; habitat disturbance, and/or removal of apex predators; habitat conversion to industrial forests; landscape-scale application herbicides on industrial forest lands during site prep, and, increasingly, on powerline and pipeline corridors for suppression of trees and brush; suburban/urban development; roads; sand pits; agriculture; invasion of habitat by cogongrass; and by human predation.

A significant new threat to tortoises in MS follows from the edict by Secretary of State Delbert Hosemann that timber rotation intervals on 16<sup>th</sup> Section Lands (revenues from which are by law used for support of local school districts) will be shortened to 35 years. The new rotation length may force a shift to faster growing loblolly pine, and thus less-frequent burning, and may lead to a general deterioration of habitat quality.

#### Tortoise Research

**Headstarting Project-** Matt Hinderliter (TNC, Camp Shelby Tortoise Biologist) Camp Shelby Field Office (CSFO), Camp Shelby Joint Forces Training Center (CSJFTC). This is the fourth year of the head-starting project, the purpose of which is provide a better understanding of the survivorship and behavior of the younger age classes. In May 2009, 19 nests with a total of 86 eggs were protected. Late in incubation, eggs were removed and placed in an incubator. Of the 68 eggs moved (excluding those found to be rotten), 44 hatched (64.7%; representing 51.2% of the total clutches).

Two of the original 10 head-started tortoises (released as yearlings in 2007) are still being radio-tracked. In September 2008, 10 two-year-old, 15 yearling, and 20 hatchling tortoises were released into the field with radio-transmitters. To date, 7 of the two-year-olds, 2 of the yearlings, and 2 of the hatchlings are still being tracked. Reasons for not tracking include transmitters falling off or failing, mortality due to falling into stump holes, predation by fire ants, mammals, and snakes, and unknown health issues (wasting). This fall, an additional 5 three-year-old, 7 two-year-old, 19 yearling, and 19 hatchling tortoises will be released into the field with transmitters. Current residents of the head-start pen are 5 three-year-olds, 36 two-year olds, 52 yearlings, and 24 hatchlings.

**Genetic population structure-** Rachel Wallace (University of New Orleans). This project is examining the influence of habitat variables on gene flow in tortoises. Eight populations in MS were examined. Overall heterozygosity was found to be lower than that in the eastern portion of the range but higher than that measured in LA. Genetic differentiation among MS populations was not significant; all populations west of the Mobile and Tombigbee Rivers were assigned to a single panmictic group. However, some analyses did show two separate groups east and west of the Leaf River.

Josh Ennen and Dr. Carl Qualls (University of Southern Mississippi). The goal of this study was to more fully sample across the western portion of the range (i.e., west of the Tombigbee and Mobile rivers) by including populations from MS and western Alabama, in addition to Florida, to reassess the phylogeography of *G. polyphemus*. Previous molecular work indicated distinct population assemblages across the range. Preliminary findings (i.e., mitochondrial gene - ND4) are mostly congruent with the previous studies and suggest the existence of three assemblages (Western, Eastern, and Central Florida).

Dr. Carl P. Qualls, Joshua Ennen, Jennifer Lamb, and Thomas Smith (University of Southern Mississippi). This study includes the investigation of possible consequences of reduced genetic di-

## 2009 GTC State Reports

### Mississippi cont'd

versity on fitness of tortoise hatchlings. Tortoise populations in the DNF exhibit significantly lower allelic diversity than studied eastern populations. Reduced genetic diversity can negatively impact reproductive success and the fitness of resulting offspring. In addition, it has been speculated that ingestion by hatchlings of fecal matter of adult tortoises may be important to establish appropriate gut flora. Hatchling tortoises from these low-variability populations were reared in captivity to assess their activity levels, thermoregulatory behavior, digestion rate, and growth rates. One group of hatchlings was inoculated with gut microflora by including fresh fecal material from wild adults in their food, while a control group received no inoculant. Growth did not differ among the inoculated and uninoculated groups, but growth varied more than four-fold among individuals. Slower growing individuals had more rapid gut passage, defecated more frequently, spent more time in the burrow, and basked less frequently.

### Surveys

**DeSoto National Forest (DNF) priority soil tortoise surveys-** In 2008 Mark Bailey, Jeff Holmes, and crew (Conservation Southeast) completed the third 100% survey of tortoise burrows on approximately 9,300 acres of priority soils in the DNF (excluding Camp Shelby). Data from this survey were compared to those from previous surveys of DNF priority soils done in 1995 and 2002.

The tortoise population appears to be declining on priority soils on the northern portion of the DeSoto Ranger District (DRD--formerly the Black Creek District) but evidence suggests that recruitment is occurring at a greater rate than before. Previously a decline was indicated for the Chickasawhay Ranger District (CRD), but the 2007 data indicate that priority soils of the CRD and the DRD-south formerly the Biloxi District) may have stable populations (i.e., no statistical increase or decrease) relative to 1995 levels. Population densities remain extremely low except on the very best sites, however, and "stable" should not be misconstrued as "healthy." Also, since 1995, tortoises have disappeared completely from 18 sites: 11 on the DRD and 7 on the CRD.

**Survey of gopher tortoises on private lands in Mississippi-** Vicki Underwood, Dr. Holly Ober, and Dr. Debbie Miller (University of Florida). This survey was designed to determine the status of gopher tortoises and their habitat on private lands in MS; landowner interest in conservation of tortoises, interest in technical and possibly financial assistance regarding application of land management practices compatible with tortoises; and interest in consideration as a tortoise relocation site. Initially, the survey was restricted to Marion, Jackson, and Wayne Counties.

A total of 2,584 survey forms were mailed, and 536 responses were received; 134 recipients indicated an interest in receiving additional information on tortoises; 135 were willing to permit site visits, and 82 were willing to receive relocated tortoises. Response rates were similar among the three counties. Ten landowners from each county were randomly selected for site visits. Evidence of tortoises was observed on 1 out of 10 properties visited in Jackson County, 1 out of 10 properties in Marion County, and 5 out of 10 properties in Wayne County.

## 2009 GTC State Reports

### Mississippi cont'd

#### Habitat Management

**DeSoto National Forest (DNF)-DeSoto Ranger District (DRD) (information provided by Diane Tyrone, DRD biologist)-** A record 112,000 acres of prescribed burning was completed (largely dormant season burning). Herbicide was applied on 500 acres of tortoise habitat on priority soil to control woody encroachment. The DNF received from Mark Bailey the report: "Status of the Gopher Tortoise on the Priority Soils of De Soto National Forest, Mississippi 2007-08."

**Chickasawhay Ranger District (CRD) (information provided by Dave Berens)-** 33190 acres (22% of the CRD) was burned; 7513 acres (23% of the prescribed burn area) of which were burned early in the growing season. Five of the 72 priority soil sites were burned during the growing season. The CRD uses portions of timber sales receipts to improve tortoise and RCW habitat through selective thinning and/or herbicide application where hardwoods or brush are excessively dense and are able to use such funding for stand improvements at sites other than those being harvested. Under this program: -532 acres of pine and hardwood overstory thinning was completed on priority soils and nearby suitable soils; 1960 acres of midstory reduction treatments (hack and squirt with herbicide) were completed; an additional 200 acres of midstory reduction was accomplished manually with chainsaws; 1100 acres of first thinnings were completed; and 65 acres of cogongrass were treated.

#### Relocations

**Black Creek Development Project (Lamar County)-** In April 2009, under Phase II of the Black Creek Development Project, nine tortoises were moved to the Elledge relocation site in Lamar County. In July 2009 two additional tortoises were captured and moved to the relocation site. Tracking of the 12 tortoises moved during Phase I of the project continued in 2009. Three of the tortoises are suspected to have left the relocation site.

**Gopher tortoise conservation banking (listed range) –** Shauna Ginger, biologist, Jackson, MS Field Office, USFWS. The USFWS's recovery plan for the gopher tortoise establishes short- and long-term criteria involving public and private lands. One mechanism for assisting the goal of creating self-sustaining gopher tortoise populations on private lands is to establish conservation banks that can serve as mitigation sites for loss of habitat as well as relocation sites for the tortoises themselves. In February 2009, the Service issued *Guidelines for the Establishment, Management, and Operation of Gopher Tortoise Conservation Banks* in the listed range (portions of LA, MS, and AL). On September 16, 2009, the first conservation bank was established by Westervelt Ecological Services in Greene County, MS. The bank totals approximately 1200 acres and is capable of supporting approximately 370 tortoises.

#### Tortoise Rehabilitation

Dr. James Askew and Dr. Karen Rushing are thanked for their long-term services in rehabilitative care of several tortoises injured on roads in 2009 and previous years. Note that one of Dr. Rushing's patients, an URTD-positive tortoise (but asymptomatic), was featured in the January 2009 issue of the National Geographic.

## 2009 GTC Awards

**J. Larry Landers Student Research Award****Bob Herrington**

Clipart provided by D.A. Steen

The GTC Research Advisory Committee selected the following student research projects for funding this year. I would like to thank all of the students for their interest in the Gopher Tortoise Council and wish them the best with their projects. I would also like to extend my deepest thanks to Ms. Joan Berish and Dr. Bill Birkhead for their help and guidance in evaluating the proposals.

*The following projects will be funded in 2009:*

**Thomas W. Hentges**, University of South Florida, Integrated Biology Department, Tampa, FL. Is the gopher tortoise (*Gopherus polyphemus*) compatible with cows? \$1,000

**Aaron Holbrook**, University of Southern Mississippi, Hattiesburg, MS. Stress levels in female gopher tortoises and their eggs from low & high impact areas. \$1,000

**Jessica Gonynor**, University of Georgia, Warnell School of Forestry and Natural Resources and the Southeastern Cooperative Wildlife Disease Study. Gopher Tortoise Population Health and Disease Ecology in Georgia. \$1,000

**Anthony Lau** (UF) – University of Florida, Department of Wildlife Ecology and Conservation, Gainesville, FL. Home range and movement patterns of Gopher Tortoises in Coastal Sand Dune Habitat. \$1,000

**GTC Annual Elections**

The GTC membership elected Dave Steen (former newsletter editor and website manager) as the Co-Chair for 2010-2012. Jessica Gonynor and Lora Smith were elected as the web site manager and newsletter editor, respectively. Jess also volunteered to serve as the Georgia State Representative. Chris Jenkins and Jayme Waldron have volunteered to lead the GTC's Upland Snake Conservation Initiative.

Special thanks to our outgoing Co-Chair, Terry Norton (photo on left), for his service to the Council.

## 2009 GTC Awards

**Auffenberg and Franz Conservation Award****Boyd Blihovde**

The Auffenberg and Franz Conservation Award is given to those who have made significant contributions to gopher tortoises or other upland species and habitats in the southeastern U.S. This year's award was presented to Tom Kaplan and Orienne Recanati-Kaplan. Tom Kaplan spent his childhood catching snakes in South Florida. He received his Doctorate from Oxford University and is the founder and chairman of Panthera, a wild cat conservation organization. At the request of his daughter, Orienne Recanati-Kaplan, he recently founded Project Orienne, an organization dedicated to the conservation of indigo snakes, gopher tortoises, and their habitat. Through Project Orienne, he has sponsored meetings bringing together indigo snake and land conservation experts to help develop strategies for saving the species. Project Orienne has developed working relationships with the US Forest Service, the Nature Conservancy, the National Fish and Wildlife Foundation, and other state and private partners to secure, improve and restore habitat. They are developing the Orienne Center for Indigo Snake Conservation in Florida to serve as a breeding facility from which snakes will be released into areas where they are locally extinct. Project Orienne is supporting indigo snake research and is sponsoring a range-wide inventory and monitoring program for indigo snakes as well as a small grant program through regional wildlife conservation organizations, and is working with university researchers at Auburn University, University of Georgia, and the University of Florida to accomplish indigo snake conservation. The Auffenberg and Franz Conservation Award includes a monetary award of \$300. At Dr. Kaplan's suggestion, GTC will use these funds for a new student travel award program in 2010.

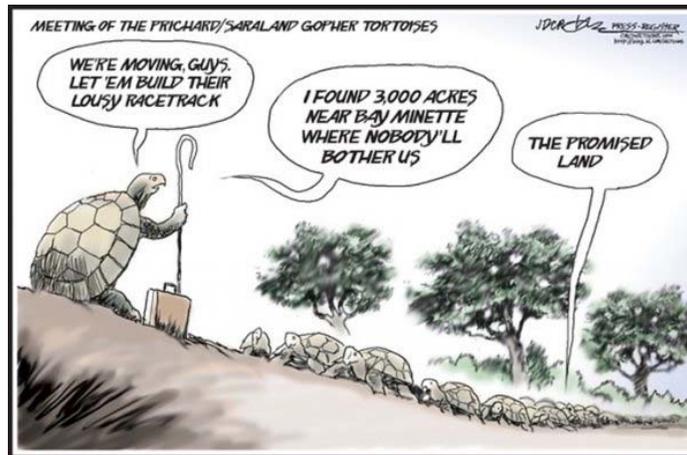


*Dirk Stevenson accepting the Auffenberg and Franz Conservation Award from Boyd Blihovde on behalf of Tom Kaplan and Orienne Recanati-Kaplan.*

**Donna J. Heinrich Environmental Education Award****Laura Wewerka**

The Friends of the Enchanted Forest was awarded a grant to purchase supplies for three educational programs (Gopher Tortoise Investigation, Gopher Tortoise Outreach Program and Gopher Tortoise Cart).

Fort White Middle School/High School received an award to purchase materials for an educational project entitled "Restore the Longleaf Pine Forest and Preserve the Upland Sandhill Ecosystem at Ichetucknee Springs State Park."



## Recent Research Publications

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