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**Notes From a Co-Chair****J. Mitch Lockhart**

Greetings all! I have finally recovered (almost) from the October, 2006 meeting and eagerly anticipate the coming meeting in October, 2007 that Margaret Gunzburger will be hosting in Milton, Florida (see below). What an interesting time I have had as co-chair of the Gopher Tortoise Council. In my first "notes" I explained to all of you my hesitation at accepting this role due to the pending addition of triplets to my family. Many of you were able to see them in Valdosta, and I assure all of you they are becoming very mobile 15-month-olds. I am certainly glad I agreed to take the role of co-chair as I have become much more learned about various aspects of gopher tortoise biology and conservation than I ever could have imagined. Many of you are familiar with the vast array of topics that are involved with studying the gopher tortoise.

My initial interest was piqued by the disease aspects ongoing with gophers, however, I quickly became involved in basic biology and ecological considerations in tortoise biology. This is why this species is somewhat unique in biology, not only are you studying the animal itself, but indirectly, you are also studying 400 plus commensals. Many of you may be focused on single aspects of tortoise biology, others study multiple topics, some involved with private interests, public servants, professors, and policy makers. Interestingly, this species brings together a tremendous array of researchers with various specialties under one umbrella, all with a common goal, i.e. the wellness of this species. The Florida Tortoise Management Plan, while yet to be implemented, may well serve as a starting point or blueprint for recovery of this species range-wide should they reach more stringent federal protection guidelines. Cheers to all of those who tackled that task! A good summer to all, and I look forward to seeing you in October in Florida!

**Fall Meeting Announcement****Margaret Gunzburger**

I am pleased to announce the 29th Annual meeting of the Gopher Tortoise Council is scheduled for October 11-14, 2007 at Adventures Unlimited, a private retreat facility north of Milton, Florida, in the western Florida Panhandle. All meeting sessions, meals, and socials will be at this site, and lodging is available on-site in cabins and campsites.

The meeting will begin Thursday night with the business meeting dinner. Friday's special session "Real World Solutions for Conservation" will highlight the application of scientific research, unique approaches, and new partnerships to solving conservation challenges. On Saturday, the meeting program continues with contributed presentations on any aspect of the ecology and conservation of gopher tortoises and other components of the longleaf pine ecosystem. On Sunday several field trip opportunities will allow us to explore northwest Florida's beautiful natural areas. For details regarding presentations, registration or lodging, please visit our website [www.gophertortoisecouncil.org](http://www.gophertortoisecouncil.org).

## CONTRIBUTED ARTICLES

## Sharing Land with Rattlesnakes

David Steen and Lora Smith



Eastern Diamondback Rattlesnake

Rattlesnakes are arguably among the most recognizable venomous snakes and have a long and storied history within the United States. The following quote from Benjamin Franklin underscores the awe and fascination inspired by rattlesnakes: "She never begins an attack, nor, when once engaged, ever surrenders: She is therefore an emblem of magnanimity and true courage...she never wounds 'till she has generously given notice, even to her enemy, and cautioned him against the danger of treading on her." These snakes, which are found only in North and South America, are also the subject of much fear and misunderstanding.

Although they play an important role in the environment, rattlesnakes are likely best known for their venomous bite. These snakes are among the top predators in the habitats where they may be found, influencing populations of rodents and other mammals. Rattlesnakes feed on pests such as rats and mice, which have the potential to spread disease and damage crops and stores of food. One adult rattlesnake can eat 20-30 rodents in one year.

Some species of venomous snakes are unique to the Southeast. The eastern diamondback, *Crotalus adamanteus*, is the largest species of rattlesnake in the world and it is known primarily from five southeastern states (South Carolina, Georgia, Florida, Alabama, and Mississippi), as well as southern North Carolina and eastern Louisiana.

*"When you see snakes in their natural setting, such as the woods, please respect their role in the environment and observe from a safe distance."*

As it starts to warm up here in the southeast, rattlesnakes may begin emerging from their winter refuges and come into contact with humans on a more regular basis. Considering the time of year, we felt it might be beneficial to discuss how to minimize conflict with these venomous snakes.

Killing venomous snakes is dangerous. In most cases, if you're close enough to kill the snake, you're close enough to be bitten. It is safer to deter snakes from ever inhabiting your yard in the first place.

Keep your lawn mowed and free of brush piles and debris such as wood piles. Most snakes will feel exposed and vulnerable in open areas and avoid them. Trim hedges and bushes so that they do not reach the ground, this eliminates potential hiding places for snakes. Although there are some products marketed as snake repellents, their effectiveness has not been established outdoors. Rather than using chemicals on your property, it is probably more effective to ensure that your yard does not look like snake habitat.

When you see snakes in their natural setting, such as the woods, please respect their role in the environment and observe from a safe distance. Canebrake rattlesnakes are most likely to be observed in hardwoods, especially close to aquatic habitats such as creeks. In our region, diamondbacks prefer upland habitats that are relatively dry and can be found in most large blocks of undisturbed land.

The most important guideline when attempting to minimize conflict between rattlesnakes and people is to keep your distance. Don't put your hands (or feet) where you can't see them.

A snake that is not being harassed is not likely to bite you. Most venomous snake bites occur when a person is attempting to capture or kill a snake. Think before you attempt to handle or

disturb a rattlesnake because a bite can be dangerous and costly.

Are you working outside in habitats that snakes may prefer? Don't wear sandals if you think that you may be stepping in spots that rattlesnakes may reside. Leather boots are appropriate or you may feel comfortable wearing snake chaps. Teach your children how to identify and avoid venomous snakes. Pay particular attention to the pattern and coloration of the various species as well as the triangular shaped head that rattlesnakes possess. Copperheads, *Agkistrodon contortrix*, and cottonmouths, *Agkistrodon piscivorus*, are two additional venomous snakes that can be found in southwest Georgia. Although these snakes do not have rattles, they can be identified as venomous by the shape of their head and color patterns.



Canebrake Rattlesnake

Remember that the venomous coral snake, which also occurs in the southeast, looks unique. The coral snake does not have a triangular head but has red, yellow and black bands with the red and yellow bands touching. Make sure children understand that it is not safe to handle a snake if they cannot positively identify it. Good resources for snake identification are included below. Emphasize how to appreciate wildlife from a distance and supervise outdoor activities.

Each year about 8,000 people in the United States are bitten by venomous snakes. However, between 1960 and 1990, less than 13 people died in a single year from these bites (less than one half of 1%). Although the danger of being bitten is often overstated, all venomous snake bites should be examined by a medical professional.

If you are bitten by a venomous snake, stay calm and obtain immediate, professional medical attention. If you frequently work outside, you may find it beneficial to create a snake bite plan that details what to do if you, or others, are bitten along with the phone number of the nearest hospital emergency room. Consult a medical professional to help you create this plan. Keep in mind there are many myths regarding how to treat a snakebite; don't attempt to treat it yourself.

For a brochure including the above information, contact the editor. Author bios can be found in the previous issue.

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*“Although the danger of being bitten is often overstated, all venomous snake bites should be examined by a medical professional.”*

**This space could be yours! Please consider submitting a summary of some of your recent research as a Contributed Article.**

## GENERAL ANNOUNCEMENTS AND PRESS RELEASES

### Indigo Snake Location Request

Margaret Gunzburger

In collaboration with the USFWS, I am conducting a research project evaluating the current status of the Eastern Indigo Snake, *Drymarchon corais*, in the Florida panhandle and adjacent Alabama and Georgia. A critical component of the data collection of this project is to summarize all recent (1990-2007) observations of this species by reliable observers.

I will then attempt to revisit the site of all recent observations to conduct habitat analysis and assess the current habitat suitability for the Eastern Indigo Snake.

If you have a recent sighting of an Eastern Indigo Snake in this area, please consider submitting information to me ([gunzburger@nokuse.org](mailto:gunzburger@nokuse.org)). Any valid sighting is important, even without a voucher specimen or if you can't remember the exact date or locality. If you request, the exact locality data you submit will not be published in the report. The data I am requesting for all recent sightings is:

1. Observer name
2. Address
3. Phone number
4. Email address
5. Date of sighting
6. State
7. County
8. Locality (please include specific directions, such as "dead on road, Walton Co Hwy 3280, 0.5 miles south of the intersection with US Hwy 20")
9. Protected area name (if applicable)
10. UTM or Lat/Long
11. Habitat description
12. Voucher photo or specimen?
13. If you have no voucher photo or specimen, please provide a detailed description of the snake with particular emphasis on diagnostic characteristics
14. Comments and notes



Indigo snake. Photo courtesy of Dirk Stevenson

### American Crocodiles Status Shift

USFWS Press Release

The U.S. Fish and Wildlife Service recently announced that recovery efforts are making it possible to reclassify the American Crocodile, *Crocodylus acutus*, in Florida from endangered to threatened under the Endangered Species Act.

“Crocodiles were a part of Florida’s history for hundreds of years until human activities such as urban development, agricultural conversion, and over-hunting decimated their populations,” said Sam D. Hamilton, the Service’s Southeast Regional Director. “However, in the past 30 years, we have made great strides in protecting this species and conserving its habitat. Today, we can celebrate their comeback as a result of the recovery efforts by numerous dedicated professionals who are helping sustain a vital part of Florida’s natural and cultural history.”

The Service’s final reclassification decision comes after the completion of its 5-year review required under the ESA for all endangered and threatened species. An endangered species is defined as being in danger of extinction within the foreseeable future. A threatened classification means a species

could become endangered. Reclassifying a species from endangered to the less-critical threatened designation is often reflective of recovery efforts reducing imminent threats and allowing populations to increase.

The American crocodile is being reclassified in southern Florida, its only habitat within the United States. The crocodile will remain endangered where it occurs in other countries. The American crocodile in Florida was originally listed as an endangered species in 1975. In 1976, the Florida population was estimated to be between 200 and 300 individuals. Today, the population of American crocodiles in Florida has grown to an estimated 1,400 to 2,000 individuals, not including hatchlings.

In order to reclassify the American crocodile from endangered to threatened, the recovery plan requires a sustained breeding population of 60 females. About 95 percent of the remaining crocodile habitat in southern Florida has been acquired by federal, state, and county agencies. Hamilton gave special recognition to Florida Power and Light, Everglades National Park and the Crocodile Lake National Wildlife Refuge for their role in protecting crocodiles. However, Hamilton noted that several threats to crocodiles remain, including habitat degradation, nest depredation, and increased encounters between crocodiles and people. The Service will continue to work with its partners to manage these threats.

Federal agencies will still ensure that the activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of this species. In addition, American crocodiles are still protected from illegal take (meaning to harass, harm, and pursue, hunt, shoot, wound, kill trap, capture, or collect; or to attempt any of these), import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such crocodiles taken illegally.



## Safe Harbor for RCW in Alabama

## USFWS Press Release

The Alabama Department of Conservation and Natural Resources (ADCNR) and the (USFWS) today announced the initiation of a statewide conservation program for the red-cockaded woodpecker (RCW), *Picoides borealis*. The Safe Harbor Program provides a mechanism through which private landowners can agree to manage their lands in a manner that benefits a protected species. In return, they receive an assurance that they will not suffer from increased regulatory requirements should more of the protected species occupy their land.

“This program is a good example of partnerships between government agencies and private landowners,” said M. Barnett Lawley, commissioner of conservation for the Alabama Department of Conservation and Natural Resources. “By working together, both landowners and endangered species like the red-cockaded woodpecker will benefit from the Safe Harbor program.”

ADCNR signed the agreement with USFWS in January 2007. Since then, officials from the two agencies have been finalizing details and working with landowners to prepare to enroll participants. Campbell Lanier III signed on as the first enrollee in the Alabama program. Lanier’s property includes Se-hoy Plantation, where the ceremony was held, and Enon Plantation, also near Hurtsboro.

Lanier has been active in protecting wildlife habitat for many years, and was named Conservationist of the Year by the Alabama Wildlife Federation in 2004. “Enrolling in Safe Harbor was an easy decision for me once I had all the facts,” Lanier said. “In a landscape managed for quail, aesthetics, and timber, managing for woodpeckers is something I was already doing. After researching the program, I realized that managing for an endangered species was not something to fear, but something I was already

doing.”

“It’s a win-win situation,” said Sam Hamilton, regional director for the USFWS. “Private landowners are integral partners in fish and wildlife conservation. RCW recovery goals cannot be met without commitments from private landowners. Safe Harbor is a prime example of how collaborative conservation can benefit our trust resources.”

Alabama is the eighth state to implement a statewide agreement for the red-cockaded woodpecker. Across the Southeast, Safe Harbor agreements have provided opportunities for 268 private landowners to enroll 621,035 acres in the program. Acreage enrolled in the program accounts for 613 RCW groups, including 57 new Safe Harbor RCW groups that have been created.

“Landowners receive regulatory certainty, and retain management flexibility and complete control over their land, while protected species benefit from high quality habitats maintained on private land,” said Eric Spadgenske, USFWS private lands biologist.”

The program is strictly voluntary. Landowners can enroll their property if they have currently occupied, suitable, or potentially suitable RCW habitat, provided they agree to provide a net conservation benefit to the species. Net conservation benefits can be provided through activities such as prescribed burning and managing pine timber on longer rotations.

## Maryland Diamondbacks (Terrapins) Protected

Reuters-Jon Hurdle

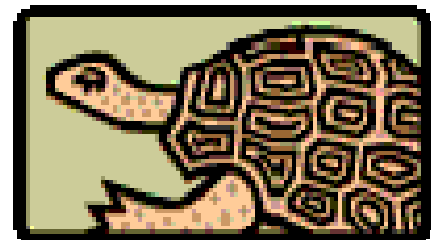
The Diamondback Terrapin, a turtle species that lives on the U.S. east coast, is under siege from Asian gourmets and American developers, but now officials and lawmakers are coming to its rescue. Scientists in the Maryland Department of Natural Resources this week proposed to ban capturing the reptile from the Chesapeake Bay, where thousands are snatched every year destined for China and other Asian countries where they are commonly made into soup.

The moratorium, expected to take effect from June 18, would ban the terrapin harvest indefinitely and help to reverse a predicted continuing decline in its population, said officials. Separately, Maryland lawmakers are also debating two bills that would also ban capturing the species, whose shell grows up to nine inches in length.

Around 11,000 terrapins were trapped in 2006 compared with 4,000 in the previous three years, but the real numbers are believed to be higher, said Gina Hunt, assistant director of the Fisheries Service in Maryland's Department of Natural Resources. The species, which is named for the diamond pattern on top of its shell, is sensitive to small mortality increases because it takes between eight and 13 years for them to reach sexual maturity, and they only lay around 40 eggs a year, said Willem Roosenburg, a biology professor at Ohio University.

But the moratorium alone will not ensure the turtle's future, Hunt said. Loss of habitat from coastal development, including the elimination of beaches where terrapins lay their eggs, contribute to its decline.

They are also threatened by predators such as raccoons, which prevent about 95 percent of young terrapins from reaching breeding maturity, as well as recreational crabbers, who unintentionally catch them in crab traps where they are unable to breathe. Hunt said the proposed moratorium was a "first step" in a series designed to save the terrapin. "It's not just about the commercial harvest," said Hunt. "Whether or not you stop shipments to Asia, the terrapin is still in trouble."



## Invasive Snake Found in Georgia

One of the world's most diminutive snakes has made its way into Georgia, becoming the first non-native snake species to establish a population in the state. Biologists from the Georgia Department of Natural Resources, Wildlife Resources Division (WRD) confirmed the presence of Brahminy blind snakes at a site in Albany, Ga. The nonvenomous Brahminy blind snake is native to Southeast Asia, and has been present in Florida for years. The burrowing snakes, which grow to a maximum length of seven inches, are often unwittingly transported in potted plants or in shipments of soil and sand. "Unlike many invasive species, we don't expect this snake to cause significant ecological problems in Georgia," said WRD Wildlife Biologist John Jensen. "We will keep records of any other locations where the snake is found to monitor its progress."

Albany residents Eric McGuire and his son Kyle McGuire found one individual of the species in 2005 and reported it to the local WRD office. "We have seen the snakes on several occasions while planting in our yard," Eric McGuire said. "I decided to contact the Wildlife Resources Division because I didn't recognize the species." The recent findings indicate that the blind snakes have established a population, having survived at least two winters in the area. "The McGuires have been instrumental in helping WRD locate this species," said Jensen. "We encourage Georgia residents to be on the lookout to report invasive species."

The Brahminy is the only snake in the eastern United States that is parthenogenic – reproducing via self-fertilization – and all individuals of the species are females. The harmless snakes may resemble earthworms, but earthworms have segmented bodies showing visible rings. Blind snakes are darker, smooth and uniform in thickness.

The Brahminy blind snake prefers loose, sandy soils like those found across the coastal plain of South Georgia. The clay and rocky terrain of the Piedmont could limit the snake's range if it begins to spread across the state. The snakes feed primarily on eggs and larvae of ants and termites.

While the Brahminy blind snake may not pose a significant threat to Georgia's ecosystems, its discovery underscores the broadening problem of invasive species in the state. "Invasive species in general are a major threat to Georgia's ecosystems, because they compete with native species for food resources and habitat," said Jensen.

Humans often introduce harmful non-native species to an area by releasing exotic pets such as giant African snails, a popular choice for home aquariums. Pests like the pond-choking hydrilla weed and the voracious plant-eating channeled apple snail can be transported on boats and trailers. Boat owners should wash the hull and trailer before moving their vessel to a different body of water.

Residents who think they have found a Brahminy blind snake should call (478) 994-1438 or send a picture to:

Georgia DNR, Wildlife Resources Division  
Attn. John Jensen  
116 Rum Creek Drive  
Forsyth, GA 31029

## GA-DNR Press Release



Brahminy blind snake. Photo courtesy of John Jensen

## *Newsletter of The Gopher Tortoise Council*

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## **The Tortoise Burrow**

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<http://www.gophertortoisecouncil.org>

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