

Alabama
Partners in Amphibian and Reptile Conservation
2011 Meeting Program

Camp McDowell, Nauvoo



About Our Meeting

Welcome to the third annual meeting of the Alabama Chapter of Partners in Amphibian and Reptile Conservation (ALAPARC) at Camp McDowell Nauvoo, Alabama. Maps of the Camp are provided at the back of this program. All talks will occur in Randall Commons and all meals will be served in the Stough Lodge Dining Room. The poster session and socials will occur in Stough Lodge.

Camp McDowell

Accommodations

Upon arrival, check in at the lobby of Stough Lodge. All room assignments will be in Stough Lodge and Stough Dorms. Use the campus map (provided at the back of this program) to locate the different buildings. Parking is permitted in marked parking lots including in front of Stough Lodge.

All bedding will be provided for you in addition to towels and soap.

Meals

All meals will be served in the Stough Lodge Dining Room. Vegetarian options will be available. Due to multiple groups, some lines may be inevitable. Please feel free to leisurely make your way to the Dining Room.

Internet Access

Free wireless internet connections are available throughout the camp.

Sustainability

Please consider bringing your own coffee mugs and beer steins to our meeting so that use of disposable cups will be minimized. Containers for recycling aluminum cans are located throughout the campus.

SCHEDULE

Friday September 30th, 2011

Time	Event/Title	Presenter
12:00	<i>Lunch</i>	
1:30	Herp Outing to the Sipsey Wilderness	
4:30	Return from Herp Outing	
6:00	<i>Dinner</i>	
7:00	Introduction	
7:10	Update on the Eastern Indigo Snake Reintroduction Project	Jim Godwin
7:25	Eastern Indigo Snakes in Alabama: Habitat and Management	Sierra Stiles
7:40	Eastern Indigo Snakes in Alabama: Survival and Home Range	Jimmy Stiles
7:55	A Short Film on the Diamondback Terrapin in Alabama	Ken Marion
8:30	Poster Session/Social/Silent Auction	

Saturday October 1st, 2011

Time	Event/Title	Presenter
8:00	<i>Breakfast</i>	
9:30	Herp Outing in the Bankhead National Forest	
12:00	<i>Picnic Lunch at Brushy Lake</i>	
2:30	Return from Herp Outing	
4:00	SEPARC/PARC Update	JJ Apodaca
4:15	ALAPARC Education and Outreach Initiatives Update	Wally Smith
4:30	Restoration of Reptile Assemblages in Fire-suppressed Longleaf Pine Sandhills	David Steen
4:45	Gopher and Crawfish Frog Initiative	Mark Bailey
5:00	Comparative Metabolic Rate and Assimilation between an Endemic Rattlesnake and an Invasive Boa: Implications for Invasive Species Success	Jeffrey Goessling
5:15	Herpetofauna and Large, Infrequent Forest Disturbances: Observations on Wetland Creation and Anuran Populations	Wally Smith

from a Tornado-Impacted Ecosystem

5:30	Landscape Level Influences of Terrestrial Snake Occupancy within the Southeastern United States	David Steen
5:45	Upcoming New Herp Books	Craig Guyer Mark Bailey
6:00	<i>Dinner</i>	
7:30	Recent Recovery Accomplishments for the Threatened Red Hills Salamander	Jodie Smithem
7:45	Red Hills Salamander Informal Discussion	Jodie Smithem
8:30	Poster Presentation/Social/Silent Auction	

Sunday October 2nd, 2011

Time	Event/Title
8:00	<i>Breakfast</i>

SCHEDULE DETAIL

FRIDAY

12:00 Lunch

1:30 Herp Outing to the Sipsey Wilderness

6:00 Dinner

7:00 Introduction

7:10

Jim Godwin (jcg0001@auburn.edu), Alabama Natural Heritage Program, Environmental Institute, Auburn University. *Update on the Eastern Indigo Snake Reintroduction Project*

The eastern indigo snake has been absent from southern Alabama for approximately 55 years. Attempts to reintroduce the species during the mid-1970s to mid-1980s were unsuccessful. In 2007 the idea of a reintroduction program was revived. In 2008, 2009, 2010, and 2011 gravid female eastern indigo snakes were brought into the lab at Auburn University and held until eggs were laid. Young from these snakes are being reared in captivity as stock for a release and reintroduction project in

Conecuh National Forest. In June 2010, 17 snakes were released. All snakes were approximately 2 years of age and were implanted with a radio transmitter and PIT tag. A second release in May 2011 with 31 snakes took place. Twenty-one individuals of this cohort were implanted with transmitters. Results from the radio telemetry studies will be used to assess the success of the project.

Project background and progress, exclusive of radio telemetry, will be discussed during this presentation. Topics to be touched upon include the role of prescribed fire, collaborations with state, federal, and private organizations, and results of using wild caught gravid females as a source for snakes for the reintroduction effort.

7:25

Sierra Stiles (stiles@auburn.edu), Auburn University. *Eastern Indigo Snakes in Alabama: Habitat and Management*

Conecuh National Forest (CNF) is the location of a release site for an ongoing project repatriating Eastern Indigo Snakes (*Drymarchon couperi*) in southern Alabama. Over the past 20 years, prescribed burning and other management focused on restoring the longleaf pine ecosystem have resulted in vast improvements to habitat quality on CNF. Identifying and maintaining habitat features that provide necessary resources for indigos on CNF is paramount to the success of the current repatriation effort. This talk will discuss preliminary observations of habitat use by repatriated snakes and discuss how prescribed burning may influence movement patterns.

7:40

Jimmy Stiles (stileja@auburn.edu), Auburn University. *Eastern Indigo Snakes in Alabama: Survival and Home Range*

Since June 2010, 48 Eastern Indigo Snakes (*Drymarchon couperi*) have been released into Conecuh National Forest. In 2010 17 snakes were released and in May of 2011 31 snakes were released for the Indigo reintroduction program. This talk will focus on the survival and movements of these snakes. Overall the survival of these snakes has been encouraging for the success of this reintroduction program. During the last two years some of the released snakes have established home ranges while others have emigrated out of the home ranges of the other snakes. Ultimately the success of the program depends on whether or not male snake home ranges will overlap with female snakes so that reproduction can occur. This talk will discuss this along with other movement patterns exhibited by the released snakes.

7:55

Ingrid Pfau, Ken Marion (kmarion@uab.edu), **Thane Wibbels, Andy Coleman**, University of Alabama at Birmingham, and **John Dindo**, Dauphin Island Sea Lab. *A Short Film on the Diamondback Terrapin in Alabama.*

The film to be presented was part of a senior project for and individually-designed major in wildlife cinematography. The artistically-done film highlights the decline of

the Diamondback Terrapin in Alabama and the effort to restore it to a more stable population size. Elderly fishermen are interviewed to give a perspective on historical population levels. The film, as a CD/DVD, will be used for educational outreach and will also be distributed to appropriate individuals in various state and government agencies.

8:30 Poster Session/Social

Poster Abstracts

Kayla Bieser (kbieser@uab.edu), **Thane Wibbels**, Department of Biology University of Alabama Birmingham. *Expression Analysis of a Potential Male Sex Determining Factor in a Turtle with Temperature-Dependent Sex Determination.*

Many reptiles possess temperature-dependent sex determination (TSD), in which the incubation temperature of the egg determines the sex of the hatchling. A number of mammalian and avian sex determining genes are present in reptiles, but none have been verified to be the sex determining switch. DMRT1 is a transcription factor that regulates target genes triggering testis formation. In birds, the Z-linked gene DMRT1 has been implicated as the male sex determining gene. Knockdown expression of DMRT1 resulted in genetic males becoming sex reversed. In the red-eared slider turtle, *Trachemys scripta*, DMRT1 shows sexually dimorphic expression prior to and during the temperature sensitive period. DMRT1 expression is up-regulated at male-producing temperatures, but remains low throughout female-producing temperatures. To further study the role of DMRT1 in TSD reptiles, *T. scripta* embryos were incubated at male and female producing temperatures. Additionally, embryos were sex reversed from female-to-male with an aromatase inhibitor (Letrozole) and from male-to-female with 17 β -estradiol. Adrenal-kidney-gonad complexes were dissected from the embryos at developmental stages 15, 17, 19, 21, and 23 and qPCR was performed. The results are consistent with an increase in DMRT1 expression at male producing temperatures and during female to male sex reversal. These results provide an insight into the potential role of DMRT1 as a male sex determining factor during TSD in *T. scripta*. Funding provided by Sigma-Xi Grants-in-Aid of Research.

Jamie Burchill (jburchill@troy.edu), Department of Biological and Environmental Sciences, Troy University. *Oral Microbiota of Captive Bred Corn Snakes (*Pantherophis guttata*).*

Due to its generally docile nature, the non-venomous corn snake (*Pantherophis guttata*) remains an excellent and popular choice as a pet snake. The last resort for most snakes is to bite an attacker. When provoked, the corn snake has teeth, and can potentially bite. A bite from a corn snake can draw blood, but typically does not require anything more than a simple cleaning with soap and water. Wound infection is a known complication after snakebites and provides an excellent medium for bacterial growth. Aerobic bacterial cultures of the oral cavity were

performed in eight captive bred corn snakes in order to determine if there are any potential pathogens that could possibly be infectious transmitted to humans following a bite. It has been speculated that the normal oral flora of a snake should reflect the fecal flora of the prey species. All of the participating corn snakes were fed live mice the day before being exposed to culturing activities. Preliminary results indicate that the oral cavities of captive bred corn snakes contain large communities of both gram positive and gram negative bacteria, which suggest that further analysis of the microbiota may be useful to the pet trade industry.

Jessica A. Delo (Jdelo@bellsouth.net), **Jennifer E. Layton**, Samford University, and **Thane Wibbels**, The University of Alabama at Birmingham. *Genetic Implications of Relocating Loggerhead Sea Turtle Eggs from the Alabama Coast in Response to the Deepwater Horizon Oil Spill.*

The loggerhead sea turtle (*Caretta caretta*) is a marine turtle that is found in temperate waters worldwide. Loggerheads nest over the broadest geographical range of any sea turtle species. The greatest concentration of loggerhead nesting is along the southeastern coast of North America and in the Gulf of Mexico. The current project is part of an ongoing study evaluating the genetic implications of the relocation of all loggerhead eggs from Alabama in response to the Deepwater Horizon Oil Spill. Specifically, this study investigates whether or not the movement of eggs from the Alabama coast to the Atlantic coast of Florida could be altering the genetic composition of the loggerhead population in the southeastern United States. Over the past 3 years we have been collecting tissue samples from hatchling loggerheads in Alabama as part of a collaborative study with the Bon Secour National Wildlife Refuge. DNA sequence analysis of the 2007 tissues were conducted this summer on the mitochondrial D-loop control region of these tissues and the preliminary results will be compared to previously published data on loggerhead sea turtles nesting along the mid-Atlantic coast of Florida where the hatchlings were released.

Julia Guyton (jaguyton@bsc.edu), Birmingham-Southern College, and **Jenny Layton**, Samford University. *Herpetological Biodiversity Study of Red Mountain Park.*

The goal of this study was to investigate the abundance and temporal distribution of reptile and amphibian species in Red Mountain Park. Red Mountain Park is situated on a 1,200-acre piece of land in the southwest corner of Birmingham. The area where the park now sits was heavily mined for iron ore from the early 1860s until the last mine closed a century later. A network of cover boards and PVC pipe tree frog shelters were set up throughout the park grounds and checked a few times a week during the months of June, July, and August as a part of a seasonal animal inventory. All animals found were recorded according to species, abundance, date, time, and location. Amphibian breeding sites in the park were identified and

monitored during these months. A vernal pond was sampled frequently and amphibian species were collected for identification and for future collaborative studies to test for chytrid fungus. Several species of amphibians were documented to carry out their life histories on the park property. This project established an ongoing herpetological biodiversity study at Red Mountain Park that will continue in subsequent seasons and give the park management, staff, and the public valuable knowledge about the types of animals living in the park. This information is important for the park to know as they continue development processes that may have impacts on biodiversity within the park. Additionally, the finding from our study will be reported to the Alabama Amphibian Network. As the park is developed, we plan to involve the public in our herpetological biodiversity survey as part of educational outreach for Red Mountain Park.

Zachery L. Napier (zlnapier@gmail.com), and **Megan E. Gibbons** Department of Biology Birmingham-Southern College. *The Distribution of the Amphibian Chytrid Fungus *Batrachochytrium dendrobatidis* across North-Central Alabama.*

A pathogenic fungus known as *Batrachochytrium dendrobatidis* or Bd has been credited with significant declines and extinctions of amphibian populations across the world. More than 200 species are now considered extinct due to the disease associated with Bd. This disease (Chytridiomycosis) targets the amphibians' keratinized layers of epidermis in adult and metamorphs, and other structures such as tooth rows and jaw sheaths in larvae and tadpoles. We surveyed five different ponds in north central Alabama from June 2010 to April 2011, and analyzed the inhabiting amphibian communities for Bd. Amphibians from the families Ambystomatidae, Salamandridae, Plethodontidae, Hylidae, Microhylidae, and Ranidae were sampled. All samples were tested for Bd by swabbing individuals, amplifying DNA (polymerase chain reaction), and gel electrophoresis. We found amphibians positive for Bd zoospores at two sites in Birmingham. Positive samples consisted exclusively of juvenile amphibians. This data will be used in a larger research project with the goal of identifying the locations of Bd throughout the North-Central portion of Alabama.

David A. Steen (davidasteen@gmail.com), Auburn University and J.W. Jones Ecological Research Center, **Dirk J. Stevenson**, The Orianne Society, **Jeff C. Beane**, North Carolina Museum of Natural Sciences, **Matthew J. Aresco**, Nokuse Plantation, **James C. Godwin**, Alabama Natural Heritage Program, **Sean P. Graham**, Auburn University, **Lora L. Smith** and **J. M. Linehan**, J. W. Jones Ecological Research Center, **D. Craig Rudolph** and **Josh B. Pierce**, United States Forest Service, **James R. Lee**, The Nature Conservancy, **Beau B. Gregory**, Louisiana Department of Wildlife and Fisheries, **John Jensen**, Georgia Department of Natural Resources, **Sierra H. Stiles** and **James A. Stiles**, Auburn University, **Nathan H. Nazdrowicz**, University of Delaware, and **Craig Guyer**, Auburn University. *Terrestrial Movements of the Red-bellied Mudpuppy (*Farancia abacura*) and Rainbow Snake (*F. erythrogramma*).*

Snakes within the genus *Farancia* are highly wetland-associated but we know little about their natural history. Studying the terrestrial movements of these animals addresses an information gap regarding their biology while generating information relevant to their management and conservation. We reviewed unpublished field notes and snake-trap capture data for observations related to extensive (>25 m) terrestrial movements by *Farancia* spp. and quantified distance to the nearest wetland boundary for observations submitted to the Carolina Herp Atlas, an online database of amphibian and reptile sightings. Cumulatively, our data demonstrate significant terrestrial movements by both species and suggest these movements may occur with some regularity. An intact landscape to accommodate these movements is likely an important component to the life history of these wetland-associated snakes.

SATURDAY

8:00 Breakfast

9:30 Herp Outing in the Bankhead National Forest

12:00 Picnic Lunch at Brushy Lake

2:30 Return from Herp Outing

4:00

JJ Apodaca (japodaca@bio.fsu.edu), Florida State University. *A Run Down of Current SEPARC Activities.*

4:15

Walter H. Smith (whsmith1@crimson.ua.edu), University of Alabama. *ALAPARC Education and Outreach Initiatives Update*

ALAPARC's educational and outreach initiatives have seen a successful year throughout 2011 in the form of several new ideas and partnerships coming to fruition. Our most successful project to date – the Alabama Amphibian Network – has involved over 4,500 Alabama students and citizens with hands-on educational experiences involving our state's herpetofauna. This project has also spawned one novel natural history finding that is currently in press in the peer-reviewed literature. Additional initiatives to be discussed will include expanding ALAPARC's outreach provider database (which has produced several outreach programs statewide this year) and a forthcoming partnership with the IUCN, the Smithsonian Institution, and several other conservation groups involving the integration of our citizen science photo pool into the Global Reptile BioBlitz program, which will be instituted next year. As with previous meetings, input and suggestions for new initiatives (or for the improvement of existing ones) are always welcomed.

4:30

David A. Steen (davidasteen@gmail.com), Auburn University and Joseph W. Jones Ecological Research Center, **Lora L. Smith, L. Mike Conner**, Joseph W. Jones Ecological Research Center and **C. Guyer**, Auburn University. *Restoration of reptile assemblages in fire-suppressed longleaf pine sandhills.*

The once-extensive longleaf pine, *Pinus palustris*, ecosystem of the southeastern United States has been reduced to a fraction of its historic extent. A fire-adapted system, many remaining fragments have been fire-suppressed and invaded by hardwood trees, particularly oaks (*Quercus* spp.). This change in species composition alters the habitat and is to the detriment of wildlife assemblages associated with longleaf pine forests. Fire surrogates and prescribed burning have been suggested as potential management strategies to restore fire-suppressed and hardwood-invaded longleaf pine forests; due to the unique effects of fire, it is generally suggested that prescribed burning should follow application of any hardwood removal treatment. To determine whether fire surrogates followed by prescribed burning were effective restoration strategies when attempting to restore reptile populations and assemblages, we sampled for these animals within 16 experimental sites and four reference sites. Experimental sites were initially subjected to either mechanical hardwood removal followed by fire, herbicide application followed by fire, prescribed burning alone, or remained in a fire-suppressed state (i.e., controls). Following initial treatment, all sites experienced over a decade of prescribed burning on an approximately two-year interval. Reptile assemblages at treatment sites became indistinguishable from those on reference sites following introduction of prescribed burning alone; fire surrogates did not immediately provide an observed benefit. At the conclusion of the study, reptile assemblages at all sites were equivalent to those on reference sites except for those on sites treated with herbicide, suggesting herbicide application was relatively ineffective at restoring reptile assemblages. A mark-recapture study of the six-lined racerunner, *Aspidoscelis sexlineatus*, also identified prescribed burning as an important restoration strategy. Initially, sites treated with prescribed burning alone, as well as sites treated with mechanical hardwood removal followed by fire, contained *A. sexlineatus* populations numerically equivalent to those on reference sites. Over time, populations at all sites became numerically equivalent to those on reference sites. Overall, recovery of reptile populations and assemblages in fire-suppressed longleaf pine sandhills is possible and prescribed burning over a long-time period is generally sufficient to achieve this result. In general, there was little added benefit or need to employ fire surrogates prior to prescribed burning.

4:45

Mark Bailey (baileycse@gmail.com), Conservation Southeast. *Gopher and Crawfish Frog Initiative.*

The ALAPARC Gopher Frog Initiative, started in 2009, is being revived for the 2012 breeding season as the Gopher and Crawfish Frog Initiative. Objectives include monitoring existing breeding sites, confirming historic breeding sites, and locating

new breeding sites. Although most work will likely be with *Lithobates capito*, a special effort will be made to locate *L. sevosus* in southwestern Alabama, and *L. areolata* searches may be conducted in western Alabama. *Lithobates sevosus* has not been documented in Alabama in about 90 years, and while *L. areolata* has never been found, it exists within 10 miles of the Mississippi line, and one recent anecdotal report needs further investigation.

5:00

Jeffrey M. Goessling (goessling@auburn.edu), **William I. Lutterschmidt**, Sam Houston State University, **Howard K. Reinert**, The College of New Jersey, and **R. Andrew Odum**, The Toledo Zoological Society. *Comparative metabolic rate and assimilation between an endemic rattlesnake and an invasive boa: implications for invasive species success.*

Islands are often limited in resource availability and niche space. Thus, islands represent ideal models for studying the ecological relationships between native and invasive species. We investigated a potential mechanism by which invasive species may demonstrate a competitive advantage over native species. We examined the comparative energetics between an endemic rattlesnake (*Crotalus durissus unicolor*) and an invasive boa (*Boa constrictor constrictor*) on the island of Aruba. Differences in metabolic rate were tested across three treatments (rest, digestive-lizard, and digestive-mouse) and assimilation efficiency across two treatments (digestive-lizard and digestive-mouse); we also examined relative digestive tract morphology to identify possible correlates with potential energetic differences. We found both an effect of species and treatment on the metabolic rate of snakes (repeated two-way ANOVA: effect of species $P < 0.001$; effect of treatment $P = 0.005$), with boas having a lower metabolic rate than rattlesnakes. Using calorimetry, we found that boas have a higher assimilation efficiency than rattlesnakes with both food types (lizard and mouse; two-way ANOVA: $P = 0.003$). The analysis of relative digestive tract morphology showed no differences between species. Our results suggest that *B. c. constrictor* may be more energetically conservative than *C. d. unicolor* and we therefore discuss how physiological efficiency may be a mechanism by which *B. c. constrictor* has been able to rapidly expand its range and population on Aruba.

5:15

Walter H. Smith (whsmith1@crimson.ua.edu) and **G. Milton Ward**, University of Alabama. *Herpetofauna and large, infrequent forest disturbances: observations on wetland creation and anuran populations from a tornado-impacted ecosystem.*

Large, infrequent forest disturbances have been broadly hypothesized to impact wildlife populations in an adverse fashion. However, due to the largely stochastic nature of these events, remarkably few datasets currently exist that are capable of comparing the pre- and post-disturbance status of wildlife populations and their habitat. On April 27, 2011, a region of the Talladega National Forest (Oakmulgee District) being used in a long-term study of anuran breeding populations was directly impacted by a violent, EF-3 scale tornado spawned from a mesocyclonic

storm system. This storm mobilized over 4 million ft³ of timber in the Oakmulgee District alone, in many cases stripping vegetation to bare topsoil over wide areas. Using post-disturbance surveys and high-resolution datasets produced by the National Oceanic and Atmospheric Administration, we provide evidence of anuran mortality and spatial patterns of wetland creation in response to debris scouring produced by this mesocyclone. Conservative estimates suggest that hylids deposited over 2,000 eggs in small, isolated scour pools created by this disturbance event in a 1 km region previously lacking any known breeding populations of anurans over a three-year period. Furthermore, spatially-explicit analyses indicate that the pattern of wetland creation across this region was nonrandom, with scour pools occurring in regions where wind and terrain vectors exhibited maximum resistance. These results suggest that, while indeed inducing wildlife mortality, large and infrequent forest disturbance events may also open new opportunities for anuran breeding through mechanisms that have previously gone unnoticed.

5:30

David A. Steen (davidasteen@gmail.com), Auburn University and J.W. Jones Ecological Research Center, **Christopher J. W. McClure**, Auburn University, **Jean C. Brock**, J. W. Jones Ecological Research Center, **D. Craig Rudolph** and **Josh B. Pierce**, United States Forest Service, **James R. Lee**, The Nature Conservancy, **W. Jeffrey Humphries**, North Carolina Wildlife Resources Commission, **Beau B. Gregory**, Louisiana Department of Wildlife and Fisheries, **William B. Sutton**, University of Tennessee, **Lora L. Smith**, J. W. Jones Ecological Research Center, **Danna L. Baxley**, Kentucky Department of Fish and Wildlife Resources, **Dirk J. Stevenson**, The Orianna Society, and **Craig Guyer**, Auburn University. *Landscape level influences of terrestrial snake occupancy within the southeastern United States.*

Habitat loss and fragmentation are thought the primary drivers of species extirpations but for many species we have little information regarding specific habitats that influence occupancy. Snakes are of conservation concern throughout North America but effective management and conservation is hindered by a lack of basic natural history information as well as few large-scale studies designed to assess general population trends. To address this information gap, we compiled detection/non-detection data for 13 large terrestrial species from 449 traps located across the southeastern United States and characterized the land cover surrounding each trap at multiple spatial scales (250, 500, and 1,000 meter buffers). We used occupancy modeling, while accounting for heterogeneity in detection probability, to identify habitat variables that were influential in determining the presence of a particular species. We evaluated 12 competing models for each species, representing various hypotheses pertaining to important habitat features for terrestrial snakes. Overall, considerable interspecific variation existed in important habitat variables and relevant scales. For example, timber rattlesnakes, *Crotalus horridus*, and kingsnakes, *Lampropeltis getula*, were negatively associated with evergreen forests whereas Louisiana pine snake, *Pituophis ruthveni*, occupancy increased with increasing coverage of this forest type. Some species were associated with grassland and scrub/shrub (e.g., Slowinski's cornsnake, *Elaphe slowinskii*)

while others, (e.g., black racers, *Coluber constrictor*, and copperheads, *Agkistrodon contortrix*) were associated with forested habitats. Although species may persist in varied landscapes other than those we identified as important, our data were collected in relatively undeveloped areas. Thus, our findings may be relevant when formulating conservation plans or restoration goals. Maintaining or restoring landscapes that are most consistent with the ancestral habitat preferences of terrestrial snake assemblages will require a diverse habitat matrix over large scales.

5:45

Craig Guyer (guyercr@auburn.edu), Auburn University, **Mark Bailey** (baileycse@gmail.com), Conservation Southeast. *Upcoming New Herp Books.*

Thirty-six years after the publication of Dr. Robert Mount's 1975 classic *The Reptiles and Amphibians of Alabama*, the book is being revised by Dr. Craig Guyer, Dr. Mount, and Mark Bailey as a 2-volume set titled *Reptiles of Alabama* and *Amphibians of Alabama*, to be published by the University of Alabama Press. Completion of the reptile volume is anticipated in late 2011 with the amphibian volume following in 2012. Distribution maps and illustrations are still being prepared, and it is not too late to submit photos for consideration. A wish list of images will be made available at the meeting.

6:00 Dinner

7:30

Jodie L. Smithem (Jodie_Smithem@fws.gov), U.S. Fish and Wildlife Service. *Recent Recovery Accomplishments for the Threatened Red Hills Salamander*

The Red Hills region of Alabama is a unique ecosystem that contains plants and animals found nowhere else in the world. One such animal is the Red Hills salamander, *Phaeognathus hubrichti*. The Red Hills salamander is entirely confined to the Red Hills of Alabama, found primarily in mature, undisturbed mixed hardwood forests on steep slopes and moist ravines of the Tallahatta and Hatchetigbee geologic formations. It is the official state amphibian of Alabama and is federally listed as a threatened species. Its conservation and recovery are a top priority for the Alabama Ecological Services Field Office. This presentation will highlight recent recovery efforts taken by Federal, State, and local governments; private landowners and companies; academia; and non-profit organizations to protect and conserve this unique species. These efforts include land acquisitions, outreach activities, and research projects. With the continued collaboration of private and public partners and the increased drive to recover this important species, the Red Hills salamander and the habitat it depends on can be enjoyed by many future generations.

7:45

Red Hills Salamander Informal Discussion

8:30 Poster Session/Social

SUNDAY

8:00 Breakfast

ALAPARC would like to thank the following organizations for supporting our meeting:

Our socials are being sponsored by the Back Forty Beer Co. based out of Gadsden, AL. (<http://www.backfortybeer.com/>). They are providing their Naked Pig Pale Ale and Truck Stop Honey Brown Ale for our drinking enjoyment.

Coffee for our meeting is being provided by FinerGrind Coffee Roasters, an Alabama-based company (<http://finergrind.com/index.html>). From their website: Artisanal Roaster of Fine Specialty Coffee*

*Specialty Coffee (spesh'-uh l-tee kof'-ee)-noun 1. Coffee that scores 80 points or above when cupped, possesses a distinctive character in the cup, and has no defects. 2. Coffee beans with unique flavor profiles that result from the altitude, climate, and soil composition where they are grown, as well as the processing techniques applied after harvest. 3. The only coffee roasted by FinerGrind Coffee Roasters.

ALAPARC scholarship initiative:

At this year's meeting we will be starting a new initiative to raise funds to support a scholarship. The scholarship will be awarded to an Alabama senior high school student who writes the best essay about the importance of Alabama's reptiles and/or wildlife and why they shouldn't be exploited. It will be our small way to encourage the next generation of conservationists in Alabama. If you would like to contribute to the fund you can make a contribution to the "ALAPARC Scholarship Fund" via PayPal on ALAPARC's website. Additionally, all funds raised from this year's silent auction will go directly to the scholarship.

ALAPARC would like to thank the following silent auction contributors:

Whit Gibbons
Larry Davenport
Mike Howell
Avondale Brewing Company
DS Art and Don Stewart
Shelleigh Buckingham

About Our Chapter

Alabama PARC is chaired by Kayla Bieser and Sean Graham and is a chapter within Southeast PARC (SEPARC) co-chaired by JJ Apodaca and Chris Jenkins. For more information about SEPARC visit www.separc.org. ALAPARC's website is

www.alaparc.org. National PARC's website is www.parcplace.org.

Directions to Camp McDowell

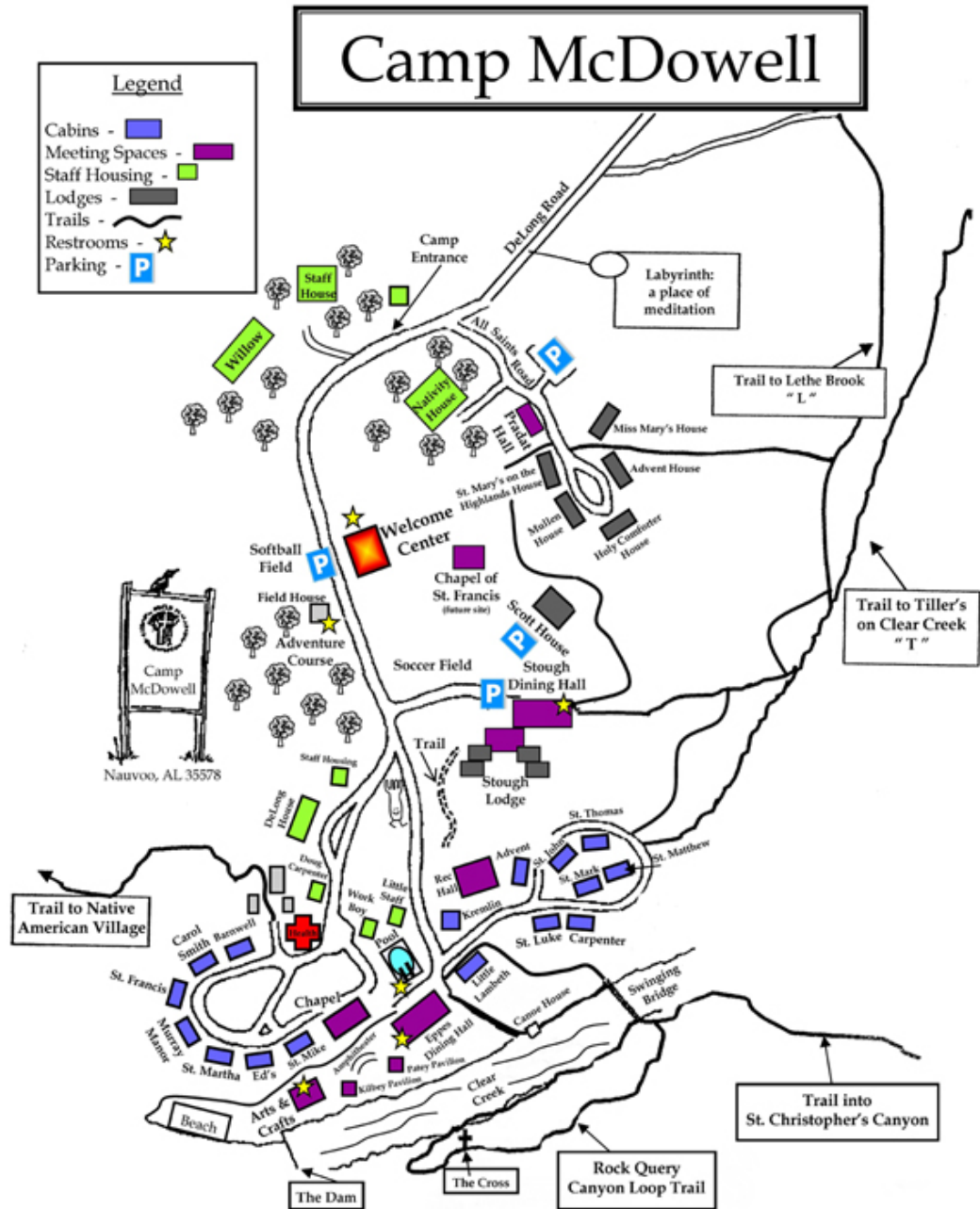
Birmingham and Montgomery - Take I-65 North in Birmingham. Take exit 264 and turn left onto Daniel Payne Drive going west. Go approx. 1 mile and then turn right on Coalburg Road. Then turn left onto I-22/78 (Corridor X) towards Jasper. Take Exit 63 and turn right onto 269 North into Jasper. Turn right at second light onto 18th St. and an immediate left onto 9th Ave. which will turn into HWY 195. Take HWY 195 approx. 15 miles to mile marker 13 and turn right into Camp McDowell.

Huntsville - Take I-65 South to Cullman; Take U.S. 278 West to Double Springs. Take Highway 195 South to Camp McDowell, about 10 miles (at the 13 mile marker).

The Shoals - Take Highway 43 South from Florence to Russellville; Take 243 from Russellville until that road ends then take Highway 195 South to Double Springs; continue on Highway 195 South, about 10 miles to Camp McDowell (13 mile marker).

Tuscaloosa - Take Highway 69 North to Jasper. Take Highway 195 North to Camp McDowell, about 15 miles (13 mile marker).

Map of Camp McDowell



* Not To Scale