ALABAMA PARTNERS IN AMPHIBIAN AND REPTILE CONSERVATION

ALAPARC NEWSLETTER

Summer 2010
Vol. 2, No. 2

ALAPARC
Alabama Chapter of Partners in Amphibian and Reptile Conservation

In this issue

A note from the Co-Chairs

This summer, ALAPARC members commemorated the discovery of a species, and were disappointed by efforts to find another—possibly an indication of its end in Alabama. In June, Mark Bailey organized a celebration of the 50th anniversary of the discovery of Alabama's endemic Red Hills salamander (*Phaeognathus hubrichti*). In 1960 Leslie Hubricht, a malacologist, found a very long, very strange salamander while field collecting off U.S. Hwy 31 in Butler County. Eventually, this single, poorly preserved specimen was described as a new genus and species by Richard Highton. Efforts to locate additional specimens by Ohio State University and University of Alabama are now legendary, and tales of the adventure can be sought in the excellent first hand account written by Alabama native Whit Gibbons in his book, Their Blood Runs Cold. The anniversary event was a success, with representatives from both OSU and UA in attendance. A field trip to the type locality was included, and war stories about total numbers found in one night are rumored to still echo from the sides of Gator Pond. You can read Mark Bailey's first hand account **here**.

Speaking of efforts to find large salamanders, efforts were focused this spring and summer to locate live hellbenders in northern Alabama. At the time Red Hills salamanders were discovered, hellbenders were collected in streams near Florence, Alabama by Dr. Bob Mount's Auburn University herpetology classes. One particular class in the spring of 1968 collected eight individuals in a single day. To determine the current status of the species, ALAPARC's Hellbender Initiative volunteers revisited these same streams and scoured at least a dozen other north Alabama creeks for a total of ~100 person hours. Auburn University biologists hosted several biologists from the University of Georgia to ignite a competitive spirit reminiscent of the Ohio State vs. University of Alabama Red Hills salamander expeditions. This bioblitz competition—focused solely on finding hellbenders—resulted in a tie between the Tigers and the Bulldogs. 0 to 0, no hellbenders found.

In The Reptiles and Amphibians of Alabama, published over thirty five years ago, Dr. Mount noted, "Several streams…have been polluted, impounded, or otherwise modified to the extent…that they are incapable of supporting hellbender populations. A continuation of this trend ultimately may eliminate the hellbender from Alabama." This prophecy has likely become an unfortunate reality. It is possible future efforts to locate Alabama hellbenders may succeed in finding some old survivor. However, it is extremely unlikely a breeding population exists, and the species probably has no long term future in our state.

These salamanders—the Red Hills salamander and the Hellbender—reflect two ends of an unfortunate extreme. The Red Hills salamander, although federally threatened, is still locally

common and active research focuses on its biology and conservation needs. The hellbender, although still secure in some areas of the eastern U.S., has become exceedingly rare in this state, and the first attempt to determine its status here came not from an agency or grant, but from the dedication of a few ALAPARC individuals who couldn't let such a situation stand.

As the story of one species in Alabama may be coming to an end, the future of another has just been given a kick start. This summer a partnership between many individuals and organizations lead to a release of 18 indigo snakes into Conecuh National Forest, a species thought extirpated from Alabama for decades. You can read more about this exciting effort in the Outdoor Alabama press release provided in this issue and one of our first hand accounts **here**. We're also happy to report Jimmy Stiles has agreed to provide updates on the radio-telemetry of these snakes on **ALAPARC's blog**.

Also in this issue is information related to our 2010 meeting. We hope to follow up on the success of last year's meeting by diversifying the type of presentations and including workshops. Although we have once again succeeded in organizing a very low cost meeting, you may notice prices have increased slightly from last year. This is due to a couple factors: 1) last year our meeting was subsidized by a generous donation from Project Orianne and 2) last year we didn't charge for registration. Over the course of the year, we noticed it would be useful to have funds on hand to pay for meeting socials, hosting our website, and printing educational materials. For this reason we have added a modest $10 registration fee to all registration packages. We hope you agree with us this small increase in costs will go a long way in helping ALAPARC further our mission.

We are happy to announce we have a candidate for ALAPARC co-chair. Kayla Bieser, of the University of Alabama-Birmingham and Alabama Reptile Rescue Sanctuary, has stepped up to the plate and we look forward to voting her in during our annual meeting. Learn about Kayla and her vision for ALAPARC in this issue. As far as which one of us will be stepping down, an epic battle of Rock-Paper-Scissors should decide our fate.

Finally, and as always, ALAPARC is not an institutional entity, we are simply a network of individuals interested in the same goals. Contact us and get involved in your state chapter, volunteer for co-chair, suggest a new officer position, or just let us know if you'd like to take part in our current efforts. We look forward to hearing from you.

David Steen and Sean Graham
Co-Chairs, ALAPARC

A note from potential Co-Chair, Kayla Bieser

I grew up in the Midwest and attended the University of St. Thomas in St. Paul, MN and Purdue University in Fort Wayne, IN where I obtained my BA and MS in Biology. While at Purdue, my interest in herpetology and conservation was piqued while working with leatherback sea turtles in Costa Rica. I am currently a Ph.D. student at the University of Alabama Birmingham (UAB) researching temperature-dependent sex determination (TSD). My research interests are in the molecular physiology underlying TSD, its potential consequences for turtle conservation, and non-lethal methods for sexing hatchling turtles. Since moving to Birmingham, my husband, Nick, and I have been involved with the Herpetological Society at UAB and are on the Board of Directors for the Alabama Reptile Rescue Sanctuary (ARRS), a local non-profit group.

As co-chair of ALAPARC I would like to expand the organization's influence in Alabama and regionally. I would like to work at increasing the participation and education of the general public as well as increasing the cooperation of conservation minded organizations. The ALAPARC website and facebook page can be great and easy tools to expanding our influence. I look forward to my future role in serving ALAPARC.

Kayla Bieser

Fall 2010 Meeting

November 5-7, 2010
Solon Dixon Forestry Education Center
Andalusia, Alabama

Join us by lunch on Friday to listen in on a panel discussion regarding potential ramifications of a federal listing for the gopher tortoise in Alabama and stick around that weekend as we honor an Alabama herpetology pioneer, and for presentations concerning conservation and research in the state, and workshops on how citizens can collect natural history information to

contribute to our understanding of amphibians and reptiles. Mixers will be on Friday and Saturday evenings where amphibian and reptile conservation can be discussed over beverages of your choice (included with registration). Both nights will present unique entertainment options.

Meeting registration is now open! Go to the **ALAPARC website** to register now. Also, don't forget to submit your abstract for a poster or oral presentation. Instructions and guidelines for abstracts are also available online. **The deadline for both registration and abstract submission is Oct. 15, 2010**. We're excited about the meeting and hope to see you there!

Education/Outreach News

Alabama Amphibian Network

Photo of Wood Frog *(Rana sylvatica)* courtesy Sean Graham

The Alabama Amphibian Network - a statewide citizen science partnership between ALAPARC, the University of Alabama, Legacy Partners in Environmental Education, and seven environmental education centers across Alabama – was launched in late July. The network is designed to improve amphibian education curriculum at EE centers across Alabama while providing herpetologists with valuable baseline data on the status and distribution of amphibian populations throughout the state. Partnering EE centers are using arrays of coverboards and PVC treefrog shelters to engage K-12 students in amphibian monitoring and to educate them about amphibian ecology and basic scientific methods. ALAPARC will be providing web space for the project, as well as publicity for the network. A press release was submitted to media statewide in late August.

Partners in the network to date include: Camp McDowell (Nauvoo), The University of Alabama Arboretum (Tuscaloosa), Little River Canyon Field School (Ft. Payne), Birmingham Botanical Gardens (Mountain Brook), Alabama Nature Center (Millbrook), Turtle Point Science Center (Flomaton), and Ruffner Mountain Nature Center (Irondale). Staff at each EE center have begun using sampling arrays in their education programs, and early updates from the project indicate that

over 1000 students have already taken part in the network at partnering EE centers. Check the ALAPARC website for future updates involving this project.

Online Species Profiles

In 2010, ALAPARC has partnered with the Alabama Department of Conservation and Natural Resources to publish 12 new online species profiles on the Outdoor Alabama website. Species profiles on this site are meant to provide easily digestible information for the public regarding Alabama's amphibian and reptile diversity and are an invaluable means for improving public awareness in the state. Many species on the site are still lacking info, however, so we're still looking for volunteers to help flesh out the webpage. If you're interested, browse the amphibian and reptile pages on the **ALDCNR website** to see which species are lacking a profile. Putting a profile together is easy and takes little time (especially if you're an expert on a particular species), and it's a great way to both flesh out your CV and contribute substantially to outreach in the state. Contact Wally Smith (whsmith1@crimson.ua.edu) for more details.

ALAPARC Flickr Account

ALAPARC now has a group on Flickr! If you maintain a Flickr account, you can join the group and contribute your photos of Alabama herps to showcase our state's incredible diversity of organisms and their habitats. Be sure to join, and spread the word to your friends! You can find the group at: http://www.flickr.com/groups/1401032@N24/

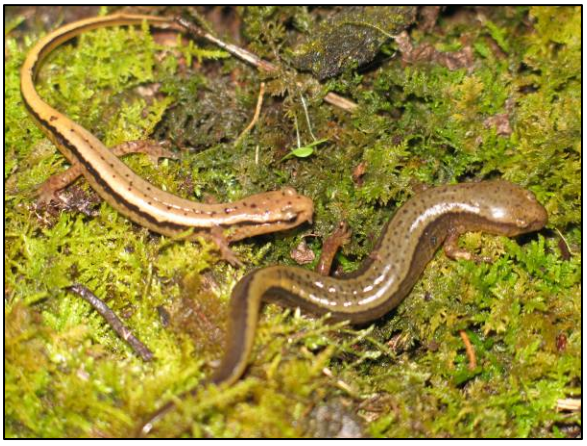


Photo of *Eurycea cirrigera* and *Eurycea aquatica* courtesy Sean Graham

Alabama Herps in the News

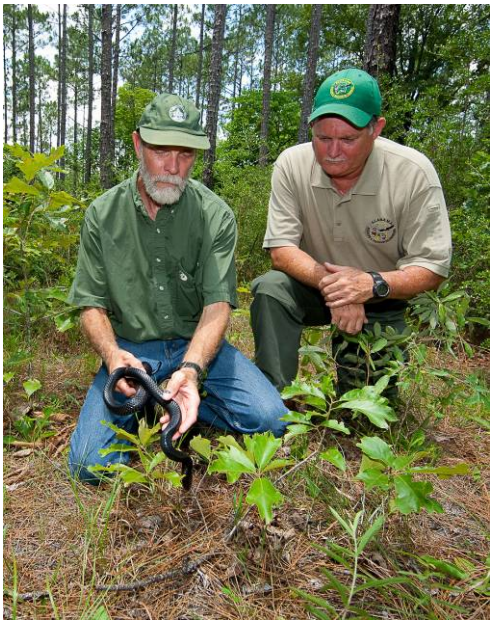
Indigo Snake Release

Below is the press release from Outdoor Alabama, found online **here**.

Conservationists Release Indigo Snakes to Re-establish Alabama Population of Threatened Species

June 16, 2010

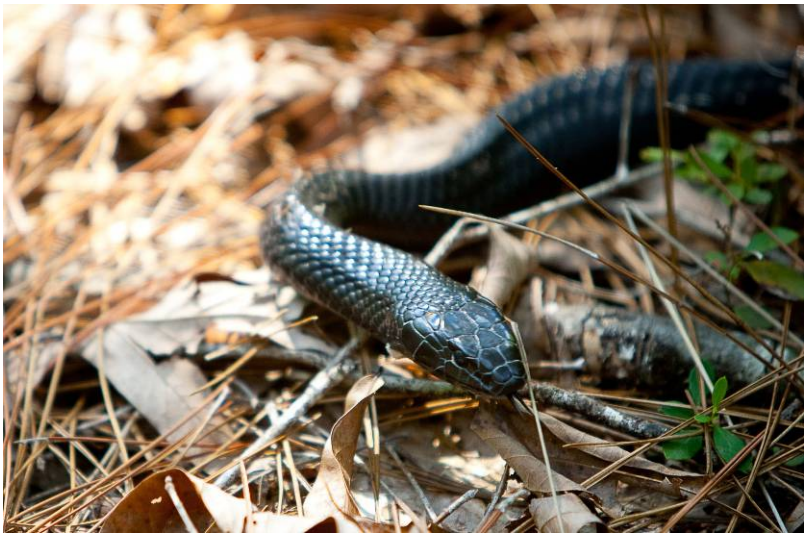
Alabama conservationists are one step closer to re-establishing a population of the Threatened Eastern indigo snake with the release of 18 juveniles into the wild today. The snakes were released on the Conecuh National Forest, which contains longleaf pine habitat suitable for the snake's survival and potential expansion.



Alabama Natural Heritage Program Zoologist Jim Godwin and Alabama Wildlife and Freshwater Fisheries Non-game Biologist Mark Sasser release an Eastern indigo snake into the wild.

The release is just one part of a multi-year project and the beginning of what Alabama Division of Wildlife and Freshwater Fisheries (WFF) biologists hope will be a new start for the snake's survival in the state. Historically, the Eastern indigo snake lived throughout Florida, the coastal plain of southern Georgia, extreme south Alabama and extreme southeast Mississippi. Today the indigo snake survives in peninsular Florida and southeast Georgia, and persists in the Florida panhandle in low numbers. In all likelihood, it has been extirpated from Alabama and Mississippi. In 1978 it was listed as "Threatened" by the U.S. Fish and Wildlife Service under the Endangered Species Act.

Some may wonder why an increase in this snake's population is beneficial for the environment. According to Alabama Natural Heritage Program Zoologist Jim Godwin, a healthy population of Eastern indigo snakes in a longleaf pine forest setting is an indication of an ecologically functional forest. "The loss of this snake from Alabama and other areas is the loss of a significant part of the biodiversity of the forest. To return the Eastern indigo snake to the south Alabama landscape is to restore a piece of the natural history of the state," he said.



A partnership of state, federal and private organizations is working together to re-establish a population of Eastern indigo snakes in Alabama.

Several different state, federal and private organizations have contributed to the project that makes the release possible. Five years ago, nongame wildlife biologists with WFF began research on the Eastern indigo snake. After two years of field surveys, no evidence of indigo snakes was found in Alabama. In 2007, the project was expanded by WFF through a contract with Auburn University to start an Indigo snake reintroduction project. This was made possible by a grant through the State Wildlife Grants Program and private contributions from Project Orianne. The State Wildlife Grants Program was established by Congress as a funding source to identify and focus management on species in greatest need of conservation. This program is administered by the U.S. Fish and Wildlife Service.

WFF Division Director Corky Pugh says this project puts emphasis on a part of the division the public might not know about. "Most people associate the Division of Wildlife and Freshwater Fisheries with hunting and fishing related activities," he said. "However, our Division is responsible for all wildlife resources."

Project Orianne is a wildlife conservation organization dedicated to the range-wide conservation of the Eastern indigo snake and its habitats. The Kaplan family founded the organization when the daughter (Orianne) developed a fondness for the Eastern indigo snake and wanted to help. Project Orianne uses a comprehensive approach to conserving the Eastern indigo snake including captive breeding, reintroduction, land protection, management and restoration, inventory, monitoring and research programs.

"We are fully dedicated to the restoration of eastern indigo snake populations in Alabama," said Chris Jenkins, executive director of Project Orianne. "We envision a landscape in south Alabama where indigo snakes hunt the longleaf pine forests for rattlesnakes and rodents and people appreciate these resources that allow them to maintain their cultural connection to the land and their rural way of life."

The 18 snakes released today were bred in captivity from wild-caught snakes from Georgia through the cooperation of Georgia Department of Natural Resources and Fort Stewart. The snakes were raised at Auburn University and the Atlanta Zoo during their early life stages.

Each captive-raised snake with this project has been implanted with a Passive Integrated Transponder (PIT tag) for permanent identification as well as a radio transmitter to track them and assess their survivorship. Auburn University will be monitoring the snakes to track their movements and survival.

The Alabama Department of Conservation and Natural Resources promotes wise stewardship, management and enjoyment of Alabama's natural resources through five divisions: Marine Police, Marine Resources, State Lands, State Parks, and Wildlife and Freshwater Fisheries.

Alabama PARC (www.alaparc.org) is chaired by David Steen and Sean Graham and is a chapter within Southeast PARC (SEPARC) co-chaired by Chris Jenkins and Gabrielle Graeter. For more information about SE PARC visit www.separc.org. For more information about PARC, visit www.parcplace.org.