

Spring 2007

Rock Eagle 4-H Center, Environmental Education Program



# Under the Rock



## From the Coordinator's Desk:



The **10** Top Reasons to Take a Field Study to Rock Eagle

10. Rock Eagle's classes are correlated to Georgia's Performance Standards.
9. Rock Eagle is a great place to reconnect with nature.
8. Get a chance to see your students in a different environment.
7. Let your students see you in a different environment.
6. Reach all your student's learning styles.
5. Learning comes alive in a classroom without walls.
4. Get away from computers and cell phones.
3. Bond with your class during a shared experience
2. Rock Eagle is fun!
1. Give your students a learning experience they (and you) will always remember

Greetings from Rock Eagle:

If have visited Rock Eagle you know there are many more reasons to share a field study with your students. If you would like more information or help planning your study please contact us at (706) 484-2834. To schedule your field study please contact Terri Camp at (706) 484-2868 or e-mail at [tcamp@uga.edu](mailto:tcamp@uga.edu). Here are a few items of interest and to aid in planning your trip:

April 13-14<sup>th</sup> Rock Eagle is offering a Girl Scout weekend. It is open to Brownies, Juniors and Cadets and geared toward earning badges. Please contact Donna Stewart at 706-484-2862 or [donnast@uga.edu](mailto:donnast@uga.edu) for more information and registration forms.

All of the trip planner information is now on-line at [www.rockeagle4h.org](http://www.rockeagle4h.org). Please click on environmental education and follow the menu. We are no longer sending paper copies.

T-shirt prices are still \$12.00 for the Rock Eagle shirts (\$13.00 for xlg). Contact us in advance to place an entire class order.

All cabins now sleep 20 human beings. We figure our program cost on full cabins, so please use every bed space (without mixing boys and girls). Schools can rent extra cabins for \$205.00 per cottage.

We look forward to working with your group in the near future.

Sincerely,

Donna Stewart  
Program Coordinator

# Meet the Staff



**Carrie Anderson** (South Carolina), **Brian Bentley** (Georgia), **Jennifery Boyd** (Georgia), **Becky Collins** (Florida), **Megan Connor** (Georgia), **Nevena Crawford** (Georgia), **Grant Crumbaugh** (Indiana), **John Dalupang** (Phillipines), **Rick Espelage** (Ohio), **Mandy Evers** (Wisconsin), **Derek Ferguson** (Georgia), **Jon Kravitz** (Pennsylvania), **Michelle McClendon** (Georgia), **Brian McKnight** (Georgia), **Jennifer Munson** (Oregon), **Paul Pickard Jr.** (Wisconsin), **Jacqui Pearson** (England), **Kara Raymond** (Wisconsin), **Ted Roumell** (Michigan), **Luke Schiller** (Minnesota), **Kelly Jo Scott** (Wisconsin), **Corrine Steever** (Minniesota), **Donna Stewart** (West Virginia), **Craig Turner** (Virginia), **Crystal Weaver** (Georgia)

## At Your Fingertips

By John Dalupang

Looking for resources on Threatened and Endangered Species? Here are some suggestions:

### Online Resources

#### **US Forestry and Wildlife Service Endangered Species Education Portal**

<http://www.fws.gov/endangered/education/>  
The U.S. Fish and Wildlife Service's endangered and threatened species program works to build and maintain partnerships, promote good science, and adopt an ecosystem approach to management. This site offers resources for both teachers and kids. The Kids' Corner (<http://www.fws.gov/endangered/kids/index.html>) has online activities that students can work on.

#### **The Rarest Information on Endangered Species Around**

<http://www.endangeredspecie.com/>

This website acts like a portal to other available endangered species resources on the web. Within the website itself, there is information on a number of topics such like existing laws on endangered species, ways people can help, and endangered species in various US states. There are also links to Kids' and Teachers' pages. The site is being maintained by Lauren Kurpis.

#### **The World Wildlife Fund**

<http://www.panda.org/>

The World Wide Fund for Nature (WWF) is an international organization for the conservation, research and restoration of the natural environment. The organization supports a factual, science-based approach to environmental conservation.

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# Catch a Fire: The Longleaf Pine- Wiregrass Community

By Brian McKnight

Georgia is host to many diverse ecosystems, many of which are in decline. The Longleaf Pine-Wiregrass Community is by no means an exception. One of the most endangered habitats in Georgia, this habitat is just a shadow of its former self. The Longleaf Pine-Wiregrass Community's former range stretched from Virginia, following southern coastal states, all the way to Texas. It is estimated that this ecosystem once inhabited 90 million acres. It is now a fragmented system, scattered throughout the southeast, occupying only several thousand acres.

The Longleaf Pine-Wiregrass Community is characterized predominantly by sandy soils and the longleaf pine, a hardy fire resistant tree, identified by its long needles and a straight, slender trunk. Occurring along the coastal plains of the southeast, fire is a natural and necessary event of this community. Fire clears the understory of the forest, allowing new growth to

flourish and animals to thrive. Many flora and fauna exist within these boundaries, each unique and specialized for life in the Longleaf Pine-Wiregrass Community. The gopher tortoise and the Eastern indigo snake are two species of animal that have been listed as threatened species. The gopher tortoise, a large terrestrial turtle, digs large burrows for shelter, and is considered a keystone species (a species that other animals depend on for survival). The gopher tortoise and the indigo snake, North America's longest snake are finding their habitat vanishing and their species in peril.

Reasons for the departure of the Longleaf Pine-Wiregrass Community are few, but monumental. Negligent, aggressive logging tactics, repression of natural fires, and agricultural and suburban development are the main contributors to the loss of such an important environment. Governmental agencies, such as the U.S. Fish and Wildlife Service, are working to restore these habitats through protection and restoration. With their help and the education of the public, this fragile, necessary ecosystem holds hope within its sands.



Longleaf Pine-Wiregrass Community



Rock Eagle's gopher tortoise, Digger



Eastern indigo snake

# You don't know me, but I'm an Endangered Species...

By Jen Boyd



**Jen:** Today we are going to talk to an endangered species that you might not have heard about, the **American Burrowing Beetle** (*Nicrophorus americanus*). Hopefully, we will be able to shed some light on how this little guy found his way onto the Endangered Species List. Here he is now, and we will get started. Thank you for coming to talk to us today.

**ABB:** Not a problem, I like talking to people. I don't get to do it very often. Life as a beetle is pretty rough.

**Jen:** Really. How so?

**ABB:** Well, not many people want beetles around. Besides, there are not many of us left.

**Jen:** Please tell us about how that happened.

**ABB:** Well, you really can't narrow it down to one main reason. There are often many factors on how a species finds itself in this type of situation. For us the problems are habitat fragmentation, competition with vertebrate scavengers, destruction of the old-growth deciduous forest, electric services in rural areas, and decreasing populations of small birds and mammals.

**Jen:** Birds and mammals?

**ABB:** Yes, we use them for raising our larvae (our babies).

**Jen:** How so?

**ABB:** The beetle parents will use dead birds and mammals to feed their young before they change into adults (metamorphosis).

**Jen:** Cool! But all of these factors are affecting you on a grand scale?

**ABB:** Pretty much. At one time, we populated 32 states and parts of Canada, but not any more.

**Jen:** I was told that the American Burrowing Beetle was placed on the list in 1989. Has anything improved since then?

**ABB:** No, our populations are still rapidly declining. However, there are continuing efforts to reintroduce us into Ohio and Massachusetts. Currently, we are only found in six states. So, this effort is a big deal to us.

**Jen:** What are some ways that people can help at home?

**ABB:** Watch out for your lights at night! Artificial lights decrease nocturnally active insects (which we are active at night) in developed areas. Plus be careful with those pesticides! Some will kill all bugs, not just the pesky ones!

**Jen:** Well, thank you very much for coming and talking with us today. Good luck, and hopefully things will get better for you.

**ABB:** Thanks for inviting me. I will let you know if things improve for us.

Resources:

[http://www.agfc.state.ar.us/critters/endangered\\_species\\_p2.html](http://www.agfc.state.ar.us/critters/endangered_species_p2.html).

[http://www.michigan.gov/dnr/0,1607,7-153-10370\\_12145\\_12204-32983--,00.html](http://www.michigan.gov/dnr/0,1607,7-153-10370_12145_12204-32983--,00.html).

<http://www.thewildones.org/Animals/buryBtl.html>.

<http://www-museum.unl.edu/research/entomology/endanger.htm>.

## A Huge Thanks

We would sincerely like to thank all of the Administration, Dining Hall, House Keeping, Maintenance, and Technology staff for their hard work and help in making the Environmental Education Program a success. The Environmental Education Program would not be able to function without all of the other departments at Rock Eagle.

### **The 2006 IUCN Red List of Threatened Species**

<http://www.iucnredlist.org/>

This website is put together by the International Union for Conservation of Nature and Natural Resources. It's considered as the world's most comprehensive inventory of the global conservation status of plant and animal species. Furthermore, the IUCN Red List is often recognized as the most authoritative guide to the status of biological diversity. It's a good place to check the status of your favorite threatened or endangered species.

#### Movie

### **The Medicine Man (1992)**

Sean Connery plays the role of an eccentric doctor who is looking for a cure for cancer in the Amazon jungle. Unfortunately, part of the jungle where he is working has been acquired by a logging company and is being bulldozed. The movie also shows beautiful landscapes of a rainforest. Rated PG-13 in the USA.

There is a cornucopia of teaching and research resources on endangered species available on the internet and in the local libraries. Just do a basic search on popular search engines and voila, a handful of suggestions will come up. As for any research project, do check the accuracy and reliability of your sources. Peer reviewed journals and publications such as Nature™, Wildlife Conservation™ and those coming from universities and organizations such as the Audubon and National Geographic societies will give you the most recent information about wildlife, endangered and threatened species research.

Disclaimer: Any views, choices, and suggestions expressed in this article are those of the author and may not necessarily reflect the views or choices of the Rock Eagle Environmental Education Program or its parent organization, The University of Georgia Cooperative Extension Service.

# Georgia's Endangered

By Ted Roumell

Georgia has a total of 63 threatened or endangered species: 38 animals and 25 plants. Threatened species are species that are likely to become endangered within the near future throughout most of, if not all of, its range. Endangered species are plants or animals whose ability to survive and reproduce has been greatly jeopardized by human activities. Once a species is added to the endangered species list several precautions are taken to protect and preserve any remaining organisms and their habitats. Migratory birds, many freshwater fish and mussels, the bald eagle, wood stork and gopher tortoise are just a few animals needing protection.

The gopher tortoise, Georgia's state reptile, is threatened. Gopher tortoises are keystone species to the southeast region of the United States, providing habitat for up to 350 other species throughout its burrows (including venomous snakes). The practice of pouring gasoline down the burrows and lighting them in hopes of killing any rattlers is still legal in Georgia. The longleaf pine forests, which these tortoises prefer, are also being cut down to make way for more suburban housing and shopping centers. However, many people have become aware of this animal's situation and are becoming more and more concerned. The Gopher Tortoise Council was formed in 1978 by a group of southeastern biologists and concerned citizens to protect, conserve and facilitate public educational programs (visit [www.gophertortoisecouncil.org](http://www.gophertortoisecouncil.org) for more information).

The US Fish and Wildlife Service and many marine and land management organizations work very closely with the Georgia Department of Natural Resources to ensure a healthy recovery for all species on these lists. However, it is still a large task to monitor these animals and to fund their programs. Universities and private land owners are also called upon to aid in habitat protection and to encourage a full recovery. The biodiversity of our planet is extremely rich, help keep the wealth.

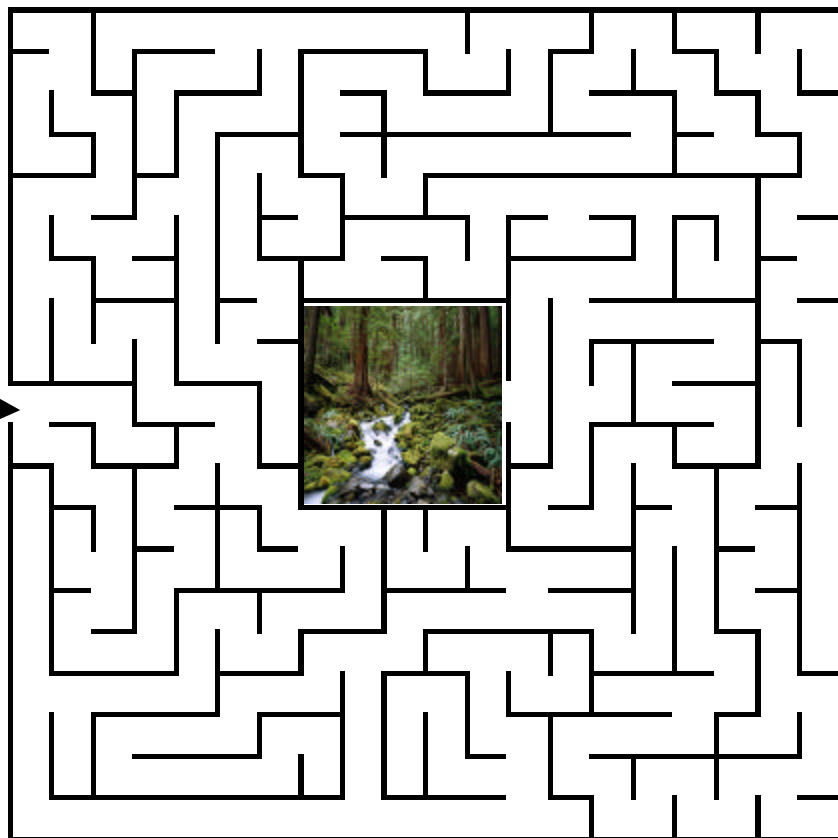
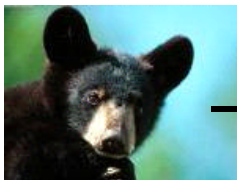
# Mazing Your Way Through a Habitat

By Mandy Evers

Habitat fragmentation literally makes life a maze for many species. While habitat fragmentation (the breaking up of an organisms preferred habitat) is a natural occurrence, human activity has caused it to occur on a larger scale and more rapidly. A fragmented habitat makes it difficult for an organism to move to a new area, to migrate, and to find food and water sources. When a habitat is broken up it becomes a series of many smaller habitats that can not support as much life. The interior habitat is reduced and edge habitat is increased. Many animals, such as rodents, thrive in edge habitats; however, other animals, such as black bears and red-shouldered hawks prefer interior habitats. The lack of interior

habitat causes a decrease in biodiversity (the number of species in an area) because edge species increase while interior species decrease or disappear completely.

Sarah the Black Bear lives in a large undisturbed forest. The forest provides various berries and nuts for Sarah and her family. A small stream provides fish to eat and water to drink. However, Sarah's home is also an ideal place for people to live. One by one, people move in and Sarah's habitat becomes smaller and smaller. Because Sarah's habitat becomes so fragmented, her and her family need to journey to a new habitat. Help Sarah find her way through her old fragmented habitat to a new home in the interior that provides the resources and space Sarah and her family need to survive.



# Against All Odds

By Jacqui Pearson

It had taken the thirty-five year old loggerhead turtle many days to swim to the Georgia coast from her feeding grounds out in the deep waters of the Atlantic Ocean. It was the first week of June and she was ready to lay her first ever batch of eggs. For the first time in her life she was going back to the beach where she was born.

The turtle hung around the shallow waters as she waited for night fall. Laying her eggs at night would reduce the danger of predators for both herself and her precious eggs. She climbed the beach to beyond the tide line (otherwise her nest would flood) and dug a hole with her back flippers. Then she laid 121 eggs. The loggerhead then carefully covered the nest with sand before she headed back towards the ocean.

She was nervous about leaving her children, to leave them to fend for themselves. There were so many things that could happen to them. Naturally there were predators, they would be a threat for all of her childrens' lives; it was the way of things. But then she stopped and looked back at the human lights along the beach. Loggerhead hatchlings use the moon to direct themselves to the ocean. Would these human lights lead her children in the wrong direction? And if they reached the ocean, would the fishermen accidentally catch them in their nets? The loggerhead also knew that some humans highly valued parts of her species, like the shell, so caught her fellow turtles on purpose.

The mother loggerhead made her way slowly back to the ocean. She was worried about the many man-made and natural threats that awaited her children when they hatched in 60 days. But she also knew that there were humans who wanted to help protect her species; that care for them and want to find out more about them. People who help injured animals, or help straggling hatchlings. And she also knew about turtles being used to teach humans about her



Photo by Jason Scott

species. Perhaps one of my children will become one of those, she thought as her face hit the waves.

On that same beach, some sixty days later, tiny loggerhead turtles began to emerge from the sand and began their journey across the sand towards the ocean, using the moon as their guide. A few were left in the nest; they found it too difficult to climb over the shells of their siblings towards the night. These stragglers were rescued by humans just before a storm was coming that would drown the young loggerheads. One of the stragglers was brought here, to Rock Eagle. Cabretto, our Loggerhead sea turtle, helps us to educate people about this endangered species. He will be educating young people until he is old enough to be released back into the ocean.



Photo by Jason Scott

# Visit a 4-H Center Near You!

## Burton 4-H Center on Tybee Island



For information, contact:  
David Weber  
912/786-5531  
tybee4h@uga.edu

## Wahsega 4-H Center



For information, contact:  
Jenny Kvapil  
706/864-2050  
wahsega@uga.edu

## Jekyll Island 4-H Center



For information, contact:  
Melanie Biersmith  
912/635-4117  
melmel@uga.edu

## Forston 4-H Center



For information, contact:  
Susie Greer  
770/946-3276  
fortsonsmith@bellsouth.net

## Let your littles ones discover the wonders of Rock Eagle!

Rock Eagle's Discovery Program as an academic field study for Pre-K through 2nd grade. The goal of the Discovery Program is to provide fun, educational learning experiences for younger students. Typical field studies include two one-hour classes, followed by time to explore the Natural History Museum and gift shop. Classes topics include Georgia History, Exploration, and Animal Kingdom. Call Becky Collins at 706/484-2836 or e-mail [beckyg@uga.edu](mailto:beckyg@uga.edu).

## Rock Eagle 4-H Center

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Cooperative Extension Service  
350 Rock Eagle Road  
Eatonton, GA 31024  
Phone: 706/484-2834  
Fax: 706/484-2888  
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