



**Georgia 4-H Camping...
Summer Camp Re-Cap**

Georgia 4-H completed the 2001 camp season with 9265 campers, reaching the 90% capacity average for the summer.

Truitt-Fulton/ Junior Camp-reached 93% with 1057. Rock Eagle exceeded 91% with 5241 campers. Jekyll reached 89% with 1118. Tybee attained 90% with 785, and Wahsega reached 84% with 1064 campers.

Thanks to the many dedicated agents, volunteer leaders and wonderful counselors for making 2001 one of the best seasons ever!



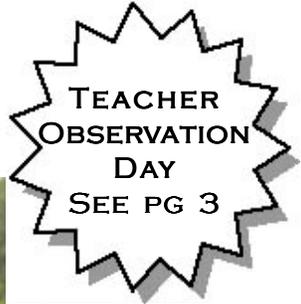
New Lake Lab Underway!

New construction at Rock Eagle has resulted from the Pledged for Life Campaign. Two Lake Ecology Labs courtesy of the Woodruff Foundation are being built, and a Wildlife Ecology Center was started in late July (next to Krannert). These facilities will greatly enhance the Environmental Education Program and 4-H Camping Program. Construction will soon begin on two additional Environmental Education staff houses in Area IV (made possible by the Tull Foundation), a pavilion on the nature trail at the Scott Site (courtesy of the Watson-Brown Foundation), and Phase I of the Georgia EMC Pavilion (Senior). Come see us grow!

Gearing Up for Fall!



Matt, Steve, Rick, Joel & Lillian



The Environmental Education Program at Rock Eagle currently has five full-time staff members. Steve Dorsch is the Program Coordinator and holds a B.S. degree from UGA in Forest Resources. Joel Walker, Assistant Coordinator of the program, has a B.S. in Natural Resources Management from Colorado State University. Rick Espelage and Matt Hammons are Educational Program Specialists. Rick holds a B.A. in Fine Arts from Mount St. Joseph College in Cincinnati, Ohio, and has extensive experience with the program. Matt has a B.S. in Outdoor Education from Georgia College and State University. He serves as a ropes course specialist at Rock Eagle and consults for the ropes program at Wahsega 4-H Center in Dahlonga, GA. Lillian McKnight is a State Extension Program Assistant with the program.

The Environmental Education Program at Rock Eagle hires seasonal staff twice a year. If interested in working with the program, call (706) 484-2862 for details, or check out our website

www.rockeagle4h.org

Seasonal teaching staff hails from all over!

- | | | |
|-----------------|-------------------|------------------------|
| Becky Goldberg | Orlando, FL | BS Wildlife Ecology |
| Wick Prichard | Tennille, GA | BA History |
| Kristi Bruce | Clermont, FL | BS Biology |
| Becky Smith | Orlando, FL | BS Science Ed |
| Lisa Beatty | Frederick, MD | BA Biology |
| Andy Southgate | Calhoun, GA | BS Outdoor Ed |
| Jennifer Conley | Baton Rouge, LA | BS Env Mangmt Sysms |
| Jenny Carpenter | State College, PA | BS Nat. Res. Economics |
| Shawneen Dallyn | Alberta, Canada | BS Env Studies |
| Salesh Kapur | England / Intern | Countryside Mangmt |
| Thomas Thayer | England/ Intern | Geography |
| Kristen Coker | Rome, GA/ Intern | Outdoor Education |
| Liz Daniel | Jackson, GA | BS Education |

Who's Who @ the Rock

Andy Smith

Head of Building Maintenance



If there is one person who is always on the go at Rock Eagle, it is Andy Smith. Andy is the Head of Building Maintenance and is responsible for making sure the entire infrastructure of Rock Eagle is in good working order. He also oversees all security at Rock Eagle and coordinates new construction on the center. It is new construction which has kept him particularly busy over the last few years.

Andy has been working at Rock Eagle since May 1989. Prior to that he worked for a construction firm in Conyers which sent him all over the U.S. overseeing projects. He was born in a 940 sq. ft. farmhouse in Roddy, GA (Dodge County).

Raised on a farm with seven people living under one roof, he found out quickly what hard work was. His family never took a family vacation.

Andy is the middle of five children. All of his siblings and his mother are currently living in Georgia. Andy and his wife Glenda live at Rock Eagle. He has one son, Ashley, who recently graduated from Georgia College and State University and is now employed by SKC in Covington, GA. Andy's favorite part of being on staff at Rock Eagle is working alongside some very dedicated individuals who pull together in times of crisis.

**Rock Eagle serving Sunday Lunch September 9 - November 18
from 11:30 am - 1:30 pm. \$8.00 Adults, \$4.00 children**

Landmark History

The **Barkuloo-Rich Building** was dedicated in 1970 during State 4-H Council. Funding was provided by the Rich Foundation. The original building had one classroom and a covered pavilion area on each side of the building.

In 1989 Mrs. Patricia Nunn Barkuloo, Tift County Extension Agent at the time, made renovation of Barkuloo-Rich possible. The two pavilions on each end were enclosed as classrooms. In the late 1990's wheelchair accessible restrooms were added. Mrs. Barkuloo continues to be one of the most avid supporters of the Georgia 4-H Program. She has



Barkuloo-Rich Building

returned to Lochapka, AL, to be near her alma mater, Auburn University. The Barkuloo Rich Building is a favorite of guests at Rock Eagle because of the picturesque view of the lake and its ideal teaching environment.

Georgia 4-H Centers &
Environmental
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Monday - Friday

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Tybee Island 4-H Center
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912/786-5534
tybee4h@uga.edu

Tidelands Nature Center
100 S. Riverview Drive
Jekyll Island, GA 31527
912/635-5032
tideland@uga.edu



Fall Foliage FAQs

By: Joel Walker
Environmental Education

If interested in teaching or volunteering with the 4-H Environmental Education Program, please contact us.



What is the science behind the autumn colors? How and why do leaves change color? Although scientists are far from having it all figured out, they have uncovered a significant amount of information about fall colors. Let's take a closer look at this annual phenomenon.

We first need to look at the leaves themselves. Leaves are the food factories of trees - the site of photosynthesis. Leaves contain a green pigment called **chlorophyll** which traps the sun's energy. Sunlight absorbed by chlorophyll supplies the energy a tree needs to transform carbon dioxide and water into oxygen and carbohydrates. The oxygen is given off by the tree, and the carbohydrates are used by the tree for growth and maintenance.

Bright sunlight causes chlorophyll to break down, so a tree must continue to produce new chlorophyll all summer long to replenish what is being lost. As long as chlorophyll is abundant in the leaf, the leaf remains green. As autumn approaches, things begin to change. Temperatures begin to fall and the length of the day becomes shorter. In response to these changes (particularly the diminishing daylight), a hormone is released in the tree which slows the nutrient flow to each leaf.

About the same time, something called an **abscission layer** develops where the leaf joins the twig. The abscission layer is a corky membrane which gradually severs the tissues that keep nutrients flowing to the leaf. Because the nutrient flow is reduced, production of chlorophyll in the leaf declines. Now the production of new chlorophyll cannot keep up with the destruction of chlorophyll caused by the bright sunlight. This causes the leaf to begin losing its green color.

In addition to chlorophyll, most leaves contain some yellow and orange pigments called **carotenoids**. Carotenoids give color to things like carrots, corn, daffodils, egg yolks, rutabagas, buttercups, and bananas. The carotenoids in tree leaves are masked all summer long by the green of chlorophyll; but as chlorophyll levels begin to decline in autumn, carotenoids are now "unmasked" and show up as the yellows and oranges we see in autumn leaves.

The different shades of red we see in the fall come from yet another group of pigments which are NOT present in the leaf all summer long. As the abscission layer is cutting off the flow of materials to the leaf, sugars being produced inside the

leaf are not able to move out as easily. As the concentration of sugar in the leaf increases, the sugar reacts to form reddish pigments called **anthocyanins**. Anthocyanins give color to cranberries, red apples, purple grapes, blueberries, cherries, strawberries, and plums. Low nighttime temperatures and bright sunny days promote the production of anthocyanins. Dry weather, by increasing the sugar concentration in leaf sap, also increases anthocyanins. The combination of these three conditions provide for the brightest reds and purples, giving leaf-watchers ideal vistas.

Not all trees go through these processes in the autumn. Evergreens like pines, spruces, firs, and cedars are adapted to harsh winters. They retain their needle and scale-like leaves all year long. These leaves are covered with a heavy wax and have fluid inside which resists freezing. Most broad-leaved trees in the United States like oaks, hickories, maples, and dogwoods have tender, vulnerable leaves which cannot withstand winter. These **deciduous** trees drop their leaves each fall and provide us with many "ooohs" and "ahhhhs" before doing so.



**Join us for Fall Teacher Observation Day
September 27, 9am -3 pm. RSVP name, school &
county via e-mail to reagle@uga.edu or call for
additional information!**





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The University of Georgia and Fort Valley State University, the U.S. Department of Agriculture and counties of the state cooperating. The Cooperative Extension Service offers educational programs, assistance and materials to all people without regard to race, color, national origin, age, sex or disability. An equal opportunity/affirmative action organization committed to a diverse work force.

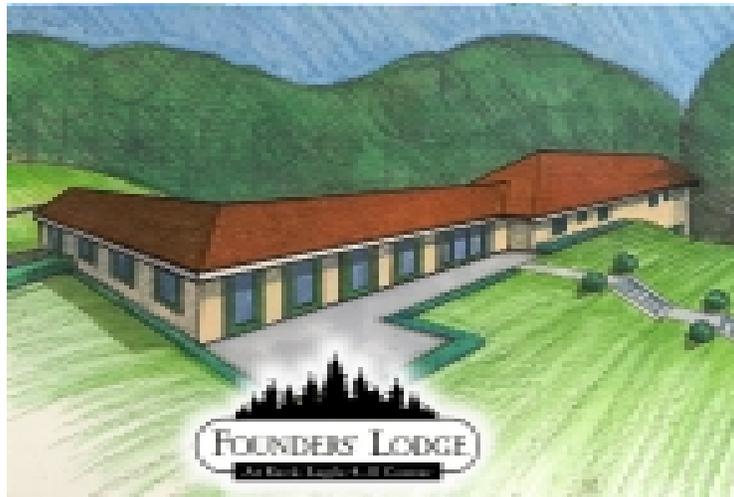
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As the nation's largest provider of residential environmental education, we welcome the opportunity to serve additional schools. Please call to book your school!



Coming Soon...Projected Grand Opening Winter 2002!

Foundation to begin Annual Fund

The Georgia 4-H Foundation's 2001-2002 Annual Fund will begin this fall. Contributions received through this year's annual fund will be used to cover operating expenses of the 4-H Foundation and provide support to the many 4-H projects which public funds cannot cover. Gifts are tax-deductible. Donors will be recognized in the annual report of Georgia 4-H, the Georgia Cloverleaf. We invite you to be a part of the 2001-2002 4-H Annual Fund and help strengthen Georgia's greatest youth development program. For more information contact Development Coordinator Jill Walton at 706/542-8914, e-mail jwalton@uga.edu or visit our website listed below.