Baatany 2011 Summer Update:
— Jamey Donaldson

The 4th Annual Herding of the Goats Onto the Balds took place Wednesday, June 22. As usual, we express our thanks to the many volunteers who helped with special mention to the Chargers/Rechargers Hiking Club who made our herding days part of their normal schedule.

Thirty-six goats and two dogs made the trek across the balds, but only 34 goats made it to the paddock. Once again, #902 Walkabout Goat hung a left on Round Bald and went into the Rhododendron thicket and my buddy G-man got caught up in the confusion. There were a few reports of a goat or two seen along the Appalachian Trail (AT) near Carvers Gap during the first several days but no reports since then. Last year #902 did the same thing and showed up 20 days later wanting to be let into the paddock with the other goats. So who knows, maybe they will slip back into the herd on the way off the mountain and G-man might have some interesting tales of adventure with his rather wild and crazy aunt.

We started out close to the AT-Grassy Ridge Trail fork and made the climb up the NC side where we put in the first new paddock since 2009 on the southwest side of the Grassy Ridge Trail, and have since crossed the AT and turned back toward Jane Bald and the descent into what I call Sisters Saddle. At this point in the project, with the baseline data and 3 years of goat browse data, I think we are about to start browsing the control transects. All the rare Green Alders are within the control plots with zero in the browse plots.

The Green Alder on Roan is itself an enigma, and is probably the best Pleistocene relict example on the mountain. Roan has the only Green Alder south of Pennsylvania and the terminal moraine (the southern limit of the last continental glaciers) but even the Pennsylvania plants are disjunct from its main range which matches the Canadian Shield very well including the southern edge of Greenland where it lives next door to glaciers. So what is it doing on Roan, 300 miles from the closest plants and 500 miles from its main range? Why did it disappear everywhere else this far south? Even more odd, perhaps, is that when there is a bunch of Green Alder in one spot on Roan it forms the unique Southern Appalachian Alder Bald which is strictly endemic to Roan Mountain. The Post-Pleistocene Megaherbivore Theory seems to apply to the Green Alder and Alder Bald as well as it does for the Grassy Balds... expect to hear more about this in the future.

The 4th Annual Herding of the Goats Off the Balds is set for Wednesday, September 14, meeting at Carvers Gap around 8:00 a.m. (We need to move the goats before the heat sets in). Check our blog for updates: http://baatanygoatproject.blogspot.com/.
THANKS SO MUCH to all the Kids Rally volunteers! Your participation and assistance with the Xtreme Roan Adventures was essential to making it a success!!! Over a hundred happy kids and parents got a sample of many new outdoor experiences!

One mom commented that her little girl came to the Xtreme Roan Adventures with “bug-phobia”. And, after a session with Kris Light and learning about insects, she was catching bugs and carrying them around to show!

Every attendee that I talked with was very pleased about the day and wanted information about the other nature rallies. So chalk the day up as a positive impact on getting more kids outside and exploring and learning about nature!

You may not be aware, but there were some new activities offered this year. On Friday evening a notable number of kids attended Kris Light’s Night Moth Program and several camped at the group campground. These were a success! The plan is to offer evening activities and group camping on site again next year! And, it was a treat to include something new to Saturday’s program list this year (Skins and Skulls, Plaster Casting, etc.)!

If you have any suggestions on what can be done to improve any component of the rally, please send them to Ken and Nora. Don’t hesitate; your feedback is very helpful for enhancing this annual nature experience for these kids.

Thank you again for to everyone who helped make the Xtreme Roan Adventures a success! We are looking forward to next year’s rally!

—Ken Turner and Nora Schubert
The Roan Mountain area preserves a spectacular series of igneous, sedimentary and metamorphic rocks that provide a window into almost 2 billion years of Earth history. The oldest rocks on Roan Mountain are found in the Carver’s Gap Gneiss and are about 1815 million years old. These rocks are metamorphic in nature and record an event that submitted older igneous rocks to high pressures and temperatures. Over the millennia Roan Mountain and the surrounding area has experienced multiple tectonic events that preserve at least two complete Wilson Cycles. A Wilson Cycle is initiated by the collapse of a major ocean basin that produces an orogeny or mountain building event. If the process continues continents eventually collide to form a supercontinent. After some time the supercontinent rifts apart and a new ocean forms only to collapse and repeat the whole cycle.

The Roan Mountain area records the existence of an ancient ocean basin that collapsed about 1100 million years ago during an event called the Grenville Orogeny. During this orogeny Laurentia (North America) collided with continental blocks that now occur in South America, Africa, Australia and Antarctica. The Grenville Orogeny produced an enormous mountain range that would have run roughly parallel to the present day Appalachian Mountain chain and formed a supercontinent called Rodinia.

Approximately 750 million years ago Rodinia rifted apart and a new ocean called the Iapetus formed along the east coast of Laurentia. This rifting event is recorded by the volcanic and sedimentary rocks found on Mount Rogers and in the sedimentary rocks preserved in road cuts near Hampton. Large amounts of sandstone, limestone and shale were deposited in the shallow seas that occupied the Roan Mountain area at this time.

Around 500 million years ago the Iapetus Ocean began to collapse in a series of orogenies that caused Laurentia (North America) to collide with Baltic (Europe), Africa and South America. This activity culminated in the formation of a new supercontinent called Pangea approximately 300 million years ago. The force of the collision pushed large amounts of basement granites and metamorphic rocks and most of the overlying sedimentary rocks to the northwest. These rocks were deformed in a series of huge folds and faults that created the Appalachian Mountains. Many of these folds and faults are all well exposed along 19E from Roan Mountain to Bluff City.

Erosion has dominated the Roan Mountain area since the Appalachians formed and they are now just a shadow of their former glory. Minor earthquakes continue to occur along these old faults as erosion takes the weight off the overlying rock sheets and they readjust to the reduced pressure. Present day erosion is responsible for many of the caves and sinkholes we have in the area and for formation of the Gray Fossil Site.

Dr. Mick Whitelaw serves as Assistant Chair for the Department of Geosciences at ETSU, is a member of the Don Sundquist Center for Excellence in Paleontology and serves as the site geologist for the Gray Fossil Site. Mick’s program, *The Geologic History of Roan Mountain*, will be presented on Saturday, Sept. 10th, at 7:30 p.m. at the RMSP Convention Center.
**Friends of Roan Mountain**

Our annual meeting of the Friends of Roan Mountain will be held during the Fall Naturalists' Rally on Saturday, September 10th at 5:45 p.m. prior to the evening meal. At the meeting you will receive information regarding the activities, projects and finances of the organization. The election of board members will also take place.

The following slate of names has been nominated by the board for this year’s election: Pam Baldwin, Gary Barrigar, Jerry Greer, Ken Turner, and Anne Whittemore. Nominations from the floor may be made at the meeting.

Board meetings are scheduled as needed, generally a few weeks prior to the rallies. Any member of FORM is welcome to attend a board meeting or submit an item for the board’s consideration by contacting the Friends of Roan Mountain president, Gary Barrigar, 423-543-7576.

The annual meeting also provides an opportunity for the membership to give their input concerning the policies and activities of FORM. Any member wishing to submit an item for the agenda of the annual meeting may do so by contacting Gary Barrigar.
The Southern Appalachian Highlands Conservancy (SAHC) has been a partner of Friends of Roan Mountain for many years. Our many partnership efforts include the ongoing management of the Roan grassy balds. The Highlands of Roan have been a priority area for SAHC’s land conservation efforts as well as for habitat stewardship since the organization was incorporated in 1974. Just recently, SAHC partnered with The Nature Conservancy (TNC) to protect another 207 acres in the Greater Highlands of Roan.

This tract, Little Yellow Mountain, located in North Carolina’s Mitchell and Avery counties, is an important piece of the nationally significant Roan Mountain Massif Natural Heritage Area, one of the most biologically diverse areas in the Southern Appalachians. Seventy-six rare species of plants and animals are found there. As recently as a few years ago, much of it was slated for development. Protection work on Little Yellow Mountain began in 2007 when SAHC purchased 430 acres. Since then both conservancies have bought tracts on the mountaintop, SAHC and TNC recently closing on Hawk Mountain Farm, a 207-acre portion that rises to the summit from the west side of the mountain. Now the summit of that 5,504-foot peak is totally protected, ensuring that the entire mountain top will forever remain free of development. This most recent land purchase required private fundraising, internal loans and a loan from The Conservation Fund. “No project is truly complete until the loans are paid off,” adds Carl Silverstein, SAHC’s Executive Director, “but getting the top of the mountain secured for protection is worthy of a big celebration.” Eventually, all of the property will become part of Yellow Mountain State Natural Area, which will allow future generations to enjoy this amazing place.

Today, we celebrate both the protection of the summit of Little Yellow Mountain and the successful completion of the twentieth annual Grassy Ridge Mow-off, a full weekend of camping, good company, good food, and — most importantly — good balds restoration efforts. The Mow-off is a favorite volunteer opportunity for SAHC and FORM members and occurs every July. Activities involve mowing blackberries with steel-bladed weed whackers, cutting shrubs and small trees with long-handled lopping shears and hand-saws, and moving cut shrubs to the balds’ edge. Over the years, tremendous strides have been made to return Grassy Ridge to its historical boundary, releasing many Gray’s lilies to their open habitat along the way.

Mark your calendars for next year’s Mow-off, to be held July 13-15! There are also several other opportunities to volunteer for Roan restoration activities throughout the summer and fall months. For more information on the Grassy Ridge Mow-off or other Roan volunteer opportunities, contact Judy Murray at roanwoman@aol.com.

You can also learn more about goat-powered land management techniques on August 13, when SAHC will lead a guided hike to view the goats of the Baa-tany Project on Roan Mountain. For more details or to register visit our website at http://www.appalachian.org/news/hikes.html.

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The Roan Mountain Summer 2011 Butterfly Count

We had a nice day, somehow avoiding the scattered showers that were apparently ending just before we arrived at various locations. Butterfly numbers were a little low, but we’ve seen lower, and the Aphrodite Fritillaries put on a decent show in the Rhododendron Gardens. A word of warning, though...if you go to the Gardens, beware of the rockwork curbs in the grass, they can be sharp-edged enough to blow out an automobile tire! Heartfelt thanks from Dianne and I to Brookie Potter and Charles Moore for assisting with the tire change.

July 23, 2011. Ten observers in 1 party. Total party-hours 5.5; total party-miles on foot; Observers: D. Draper, C. Gutierrez, R. Gutierrez, Don Holt (910 Smalling Rd., Johnson City, TN, 37601; dnldhlt@aol.com), F. Lamberts, C. Moore, B. Potter, J. Potter, N. Schubert, K. Stroud.

Species observed: Pipevine Swallowtail 60, E. Tiger Sw. 12, Spicebush Sw. 1, Cabbage White 20, Clouded Sulphur 3, Orange Su. 15, E. Tailed-Blue 29, ‘Summer’ Spring Azure 5, Gr. Spangled Fritillary 2, Aphrodite Fr. 178, Meadow Fr. 22, Pearl Crescent 17, E. Comma 1, Red Admiral 1, Com. Buckeye 2, Viceroy 2, Monarch 1, Silver-spotted Skipper 24, Least Sk. 8, Sachem 1. Total 20 species, 404 individuals

—Submitted by Don Holt

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Eastern Tiger Swallowtail
Deadline for Rally Meal Reservations – All dinner and lunch meals must be prepaid. If you plan to eat the catered dinner or purchase a bag lunch at the rally, you must send your check in advance. The deadline is Tuesday, Sept. 6th. The reservation form can be found in the brochure or on our website. Mail your check and reservation form to Nancy Barrigar, 708 Allen Avenue, Elizabethton, TN 37643. We greatly appreciate your cooperation in helping us plan accurately!

Parking at the Rally – Remember, the parking location for all field trips will be in the field below the cabins.

Mark Your Calendar!

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<tr>
<td>Spring</td>
<td>First Friday - Sunday in May</td>
<td>May 6-8, 2012</td>
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<td>Youth</td>
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<td>Fall</td>
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If you would like to opt out of receiving a paper copy of our newsletter and instead read the color version online, send an email to:

nbarrigar@friendsofroanmtn.org

LINK TO THE 2011 FALL ROAN MOUNTAIN NATURALISTS’ RALLY BROCHURE AND REGISTRATION FORM HERE:

http://www.friendsofroanmtn.org/Fall%20Rally%20Brochure%2011.pdf

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