

Chestnut Mast



Newsletter of the Carolinas Chapter of The American Chestnut Foundation

Volume 5, Issue 2

Dedicated to Restoration of American Chestnut in the Carolinas

Harvest 2003

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Mark Your Calendar!

November 1st

The Fall Meeting will be held at USDA Forest Service's Bent Creek Experiment Station near Asheville, NC.

Details on page 7.

2003 Summer Pollinations

We were fortunate this summer to have the services of three interns funded by a grant from the National Forest Foundation (www.natlforests.org). Mallory Eils, a Clemson University student, focused her work in upper South Carolina, while Steven Slack and Forrest Edens, both from Warren Wilson College, focused on western North Carolina.

Northwest NC Region: Thanks to the work of Louis Acker, Allie Funk, George Koen, Nancy Seals, and other volunteers in the northwestern region, many flowering American chestnut trees had been located in the area — some of them so tall that they required a lift or bucket truck to pollinate. We were able to pollinate four chestnut trees and one chinkapin. One of these, on Louis and Allie's farm, was 12 inches in diameter and 40 feet tall, requiring the services of a tree climber. Another tree on Peak Road in western Ashe County was pollinated with a rented lift. For two other trees, 14-foot ladders were tall enough to reach the flowers.

West-Central NC Region: Mark Rogers continued his excellent work clearing around and fertilizing native American chestnut trees along Forest Service Road 97 on Lickstone Ridge south of Canton, NC. Because we had targeted those trees for pollination last year and were pressed for time, we were not able to do any additional pollinations on these trees this year. However, they will again be prime candidates for pollination next year.

Jack Whisnant alerted us to a tall surviving tree in Haywood County just west of Waynesville. The heavy rains in early June prevented us from getting to this tree in time this year, but it will be one of our targets for next year. We estimate we could get over 100 pollinations on this one tree alone.

Frank Hollifield of Little Switzerland has trees around a clearing on his property that will also be target trees for our pollinations next year.

Southwest NC Region: Jack Johnston and Paul Vonk found a group of flowering American chestnut trees along a forest service road to Goat Bald in western Macon County. We were able to pollinate both these trees and ones previously located by Joe James on Wayah Bald.

Upper SC Region: Joe James along with National Forest Foundation intern Mallory Eils pollinated several trees in upper South Carolina, including ones at the Greenville Reservoir and on Glassy Mountain near Pickens, SC. Joe and Mallory were featured on a Greenville, SC, TV segment about their work.

Paul Sisco,
Chapter Treasurer
TACF Regional Science Coordinator

More photos, page 3



(l-r) NFF Interns Forrest Edens, Mallory Eils, and Steven Slack with Dr. Fred Hebard during their visit to the Meadowview Research Farms on August 8, 2003.



THE AMERICAN CHESTNUT FOUNDATION

**Carolininas Chapter
The American Chestnut
Foundation**

www.carolininas-tacf.org
carolininas@acf.org

Board of Directors

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Steve Barilovits, III
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Hugh Irwin
Jack Johnston
K.O. Summerville
Don Surette
Bob Wilson

Newsletter Editors

Jane & John Frampton
chestnutmast@bellsouth.net
919-662-1753

**Southern Appalachian
Regional Office**

One Oak Plaza, Suite 308
Asheville, NC 28801
828-281-0047 (Phone)
828-253-5373 (Fax)

President's Message

Building Participation, Member Involvement, and Financial Support



Let me begin by saying 4 very important and empowering words to you. **"This is your Chapter!"** How successful our Chapter will be in the future will depend upon the participation,

involvement, and financial support from our members. We receive in direct proportion to what we put into any activity. If as individuals or as a group we refuse to contribute time and money to the Carolininas' Chapter, we can not expect to receive very much from the chapter. We are trying very hard to offer our members the opportunity to learn more about American chestnut restoration efforts here in the southern Appalachian range. We do this by having membership meetings, putting up our chapter display at conferences, giving chestnut presentations, putting on workshops, conducting pollination/breeding activities, listing our accomplishments in The Mast, and producing an annual report.

"We receive in direct proportion to what we put into any activity."

Our board of directors met on August 2, 2003, to develop a limited number of attainable goals to accomplish during the remainder of the year. The consensus from the group was for CC-TACF to place a greater commitment toward publicity and outreach events and to establish an endowment to serve as a vehicle for the chapter to receive financial contributions. I really feel that our chapter is one of the strongest chapters in the TACF chapter network and we continue to gain momentum each year. Our current membership was at an all time high of 563 members as of July 2003. Our renewed efforts to focus more on membership have been paying big dividends.

In encouraging potential and current members to join, participate, or volunteer with our organization, several objections are voiced: (1) they receive nothing for their membership, (2) they don't have the time and (3) they cannot afford it. The truth is we are all busy these days, some more than others. Time is generally found for what we want to

do, be it golfing, bowling, or watching TV. You can be part of an organization trying to bring back the American chestnut to our eastern forests. This is happening now! This really is an exciting time for our Carolininas' Chapter and TACF. I hope you will enjoy reading all about our chapter activities in your newsletter and will want to get more involved. We need your participation and continued support!

Before You Renew – Did You Know?

When you choose to renew your membership you have the option to make an additional gift to the state chapter. We hope that many of you will circle the NC/SC gift option or designate any extra money above your regular membership to specifically go to the Carolininas' Chapter.

Undesignated funds will go directly to National TACF. Our operating budget is projected to be a little less than \$10,000 while National is currently above 1 million. So you can see where a sizable donation would have the greatest benefit, and that is to

your local chapter. It costs money to deliver great programs. We want all our members to renew at the \$40 regular level or higher. Of this \$40, the Carolininas' Chapter is given \$15. We do not get any dues money from members paying less than the \$40 regular member level and we do not get any money from large donations or contributions that are not designated.

Even if you choose to be a gold, bronze, or silver leaf member, you can still help the local chapter. This is where many of the field projects, presentations, and workshops are given. You can do your part by sending an extra contribution that is specifically designated for use by your local chapter and by choosing to renew your membership each year. All it takes is one generous gift to continue to build something special and lasting for future generations to get involved with. You can make a difference!

Ron Myers, Chapter President



Announcing the Carolininas Chapter's E-Mail List!!! Join Now!!!

Keep updated on meetings, mother tree selections, breeding efforts and other chapter happenings. Simply send an e-mail to paul@acf.org and include 'CC-TACF e-mail list' in the subject line.



Forrest Edens and Steven Slack pollinate a tree in central Ashe County.



A 45-foot lift is used to pollinate a tree on Peak Road in western Ashe County.



Mike Riley deftly climbs tree at the farm of Louis Acker and Allie Funk in Ashe County.



Jack Johnston, Forrest Edens, Paul Vonk and Steve Slack at Goat Bald in Macon County.



Sailing out on the Greenville, SC, Reservoir to pollinate American chestnut trees.

...And this just in...

September 27 and 28 a crew from SaltRun Productions of Atlanta filmed in the Carolinas for a chestnut program on the Turner South network's "The Natural South." They also filmed with Hill Craddock in the Chattanooga area. The 30-minute show is scheduled to air in February. Pictured at Saturday's filming at the Highlands Nature Center is Dr. Bob Zahner of Highlands, NC, being interviewed. Bob, who recently turned 80, was the first Director of the Center after it opened in 1940, and was a professor of Forest Physiology at Clemson before his retirement. Also pictured are, from right, Allen Facemire, SaltRun Productions, Director/Director of Photography; Kip Grosenick, Robin Hood Video Productions-Producer; Scott Satterfield-2nd camera and Walter James-audio person.



Book Review

Mount Mitchell & the Black Mountains *An Environmental History of the Highest Peaks in Eastern America*

by Timothy Silver

Recently, while planning a field trip for a Christmas tree research and extension conference, I was in the gift shop at Mount Mitchell State Park and ran across Dr. Timothy Silver's newly published book, *Mount Mitchell & the Black Mountains, An Environmental History of the Highest Peaks in Eastern America*. I immediately purchased a copy and as time permitted, eagerly read this well-written account of the natural history of the area. I have found this book a wonderful source of information since it addresses aspects of so many of my personal and professional interests including: Fraser fir, chestnuts, forestry and the Southern Appalachians.

The author is well suited to address the book's subject since: 1) his German ancestors migrated into the area from Pennsylvania in the nineteenth century, 2) he has been recreating in the Black Mountains since childhood and 3) he is currently a professor of history at Appalachian State University, Boone, NC.

Although the book begins with a brief account of geologic history of the area, it primarily focuses on the dynamic interactions between man and the natural world starting with the Native Americans and ending with present times. One of the many stories that Silver chronicles is the dispute over who was the first to measure the mountain's elevation between University of North Carolina professor, Elisha Mitchell, who fell to his death near the mountain given his name, and Congressman Thomas Clingman. Other tales recounted include that of renowned hunter, scout and storyteller, Big Tom Wilson; the

rapid and severe logging of the spruce-fir forests in the early part of the 20th century; the planting of exotic forest species; the impact of chestnut blight; the birth and development of the state park; the destruction of Fraser fir by the introduced balsam woolly adelgid and the impacts of acidic deposition and other air pollutants on the region.

Interspersed among the environmental history is a travelogue of the author's visits to the Black Mountains to hike, camp and fish. These vignettes are all italicized and can easily be omitted while reading the book. However, they do help provide the reader with a mood and sense of the area and in doing so, pique a deeper interest in understanding the region's past and also afford the reader with a more personal perspective of the author.

Chestnut enthusiasts will find of particular interest, two sections of the book (pages 155-162 and 202-206) that describe the impact of chestnut blight in the Black Mountains. Silver's account of chestnut blight begins with the first known occurrence of the disease in North Carolina during the summer of 1913 on Japanese chestnuts (*Castanea crenata*) in a tree farm and nursery operation near the Piedmont town of Pomona (Guilford County). These infected trees were quickly destroyed thanks to instructions from North Carolina's first state forester, John Simcox Holmes. Although the blight reappeared in Guilford County in 1915, Silver suggests that chestnut occurrence in the Piedmont was too sporadic to have rapidly spread the blight westward into the mountains.

Silver submits that the blight most likely entered the Black Mountains from the north as it marched down the Appalachians. Prior to 1913 the blight readily jumped a mile-wide swath in Pennsylvania where chestnuts had

been eradicated to contain its spread. Between 1913 and 1915, the blight swept through Virginia at an estimated rate of twenty-four miles per year. Silver surmises that the blight first appeared on the lower slopes of the Blacks sometime between 1917 and 1920 probably in proximity to valley towns or logging railroads. From there, it spread up the ridges to the upper limits of chestnut's range. By 1925, 10 percent of the chestnuts in Yancey County and 20 percent in Buncombe County showed blight symptoms. Further, 80 percent of the chestnuts in the Black Mountains were predicted to become infected by 1930 with losses of valuable chestnut wood in Yancey County alone predicted at 200,000 board feet.

The book goes on to describe the enormous efforts that occurred during the 1920s through 1950s to salvage chestnut in the Southern Appalachians, including the

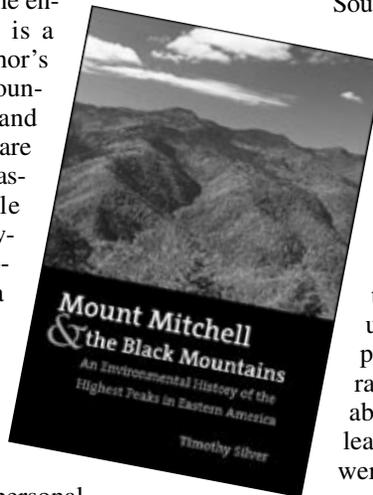
Blacks. In North Carolina, the largest benefactor of these efforts was Champion Fibre's mill in Canton that, at peak capacity, consumed 275 cords of chestnut wood daily. The company had developed a procedure that allowed tannin to be extracted from chestnut chips so that the wood fiber could also be utilized. Thus, the company prospered from abundant and cheap raw material from which two valuable products, tannic acid to tan leather, and pulp for paper products, were derived.

Silver goes on to speculate that the large-scale salvage operations may have been a mistake primarily because they eliminated the chestnut gene pool from which blight resistance could be developed through natural selection¹. He also points out that the removal of chestnut probably resulted in less desirable species regenerating in large clearings at lower elevations and a shortage of wildlife during the 1920s due to loss of food and habitat.

My one disappointment with Silver's chestnut blight account was the abrupt ending. The restoration efforts of the American Chestnut Foundation and our Carolinas Chapter were completely overlooked. Hopefully, our progress in the future will be too obvious to be omitted in future editions of this book.

Everyone interested in chestnut restoration will find this book interesting. Perhaps of greater importance than its accounting of the story of the chestnut blight, is its broader perspective

Continued on page 5



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on the historical efforts of man to use the mountain environment usually without proper care or anticipation of the long-term effects. In the final chapter, the author reflects on this process and puts forth the recommendation that we make nature an equal partner in our future Black Mountain endeavors. This is sage advice to keep in mind as we move forward in our chestnut restoration efforts.

John Frampton

¹ *I personally disagree with this premise given that the massive number of surviving chestnut stump sprouts have failed to produce significant resistance after almost 100 years. - JF*



Members in the news

Joe James' chestnut project was featured in an article from Monday, July 21, 2003 Greenville (SC) News. It can be found at www.greenvilleonline.com/news/2003/07/21/20030721110492.htm. In case the article has been archived, type "chestnut tree" in the search window.



Note of Passings

The CC-TACF received the sad news of the passing of a cherished member of CC-TACF and TACF, **Henry Henkel Rhyne, Sr.** He was a member since 1998 and would have turned 91 in November. A brief story of Henry's memories on chestnut was printed in the Spring 2003 JACF (Vol. XVI, No. 2, p.20) entitled "Thoughts of Long Ago."

Ron Myers reminisces, "I remember talking to him on the phone and he wanted to make sure we checked out some trees in Ashe county or talk to some of his old friends in the region on the whereabouts of some trees. He still had a passion to talk chestnuts. He will be dearly missed by family and friends."

Jay Rogers, father of Mark Rogers, died September 18, 2003. Jay attended the first meeting of the Carolinas protochapter at the NC Arboretum, where he entertained the audience with stories of chestnuts before the blight. Jay, who worked for Champion Paper for many years, kept his interest in chestnut into his final days, telling people that the chestnuts would be coming back.



Big thanks to outgoing editors

Susan Wilson and Don Myers have served CC-TACF as the Chestnut Mast Newsletter Editors since its inception in 1999. Susan and Don retired after the spring Pollination Issue. They will continue to be active in the organization. The chapter wishes to thank them for the hard work and dedication it took to put out the newsletter twice a year and for serving on the Board of Directors.

Growers' Tips

Do you know where your Roundup is?

I bought some blue dye (colorant) designed to be used with Roundup when spraying large areas. It is available from Southern Agricultural Insecticides Inc., Hendersonville, NC 28793. It helps to identify plants that have already received herbicide. So, if one accidentally gets some Roundup, even a minute droplet, on a leaf, it will show. Then, if one carries a small spray bottle of plain water on one's belt, the contaminated area can be washed off, no harm done. Even when using extreme care, about 1 in 10 seedlings would have droplet contamination.

Joe James, Seneca, SC

Take this to the gene bank

Surviving chestnut sprouts in the woods tend to be shade suppressed and never flower. A property owner may choose to give the sprouts light and wait until flowering occurs, but this does little good for the purpose of breeding chestnuts if the trees cannot be reached by a ladder due to remoteness of the location.

A method of harvesting genetic material growing in remote locations is possible with nut grafting. The technique is simply to graft a dormant twig onto a sprouting chestnut. The beauty of this is that the grafts take quickly, and the resulting plants can be grown in pots until planted in the field. Using this method, chestnuts from various locations can be grown side by side under ideal conditions until the time they flower. Providing optimum sunlight and fertilizer allows for quick growth. After one growing season in pots the grafts are ready for field planting.

Nut grafting is a quick process but aftercare is the time consuming part of it. It is necessary to maintain adequate moisture levels until the leaves are growing well and hardened off to grow outside in pots.

Initial attempts with 35 nuts in March has resulted in 7 surviving grafts. All are healthy at this time. A more experienced grafter could perhaps hope for a 50% survival rate. Graft failure can be attributed to several factors that can be improved. First, some of the twigs were not inserted deep enough into the nuts. Developing callous pushed the twig away from the cut in the nut. In some instances the dormant buds on the twigs were not sufficiently developed before I went on vacation and left watering to a friend. I suspect overwatering caused rotting problems. Finally, a friendly chipmunk developed a taste for chestnuts and ate some of the grafts before they were put in a wire mesh cage. Next season I hope for a higher success rate.

Jack Johnston, Lakemont, Georgia

Chapter Board Meeting

Board members of the Carolinas Chapter met August 1-2 at the Forestry Training Facility in Gill State Forest near Crossnore. The lush deciduous setting, wood-paneled lodge and generous meals provided by the facility staff created a relaxing and convivial atmosphere for the board to conduct its business.

President Ron Myers had a wide-ranging agenda, so asked board members to help develop a limited number of specific goals that we felt could be accomplished by the end of this year. These goals are briefly summarized below. Members with an interest in a particular area are urged to contact the board member in charge of each project.

The board first reviewed membership in the Carolinas Chapter. Current membership is 563, up substantially from 475 members the previous year. The board established a membership target of 550 steady members with a new target of 600 by December 2004. The chapter will coordinate membership efforts with any national membership drives, and board members will write to lapsed members in an attempt to increase our membership retention rate. If you are interested in helping with membership activities, please contact president Ron Myers.

In the related area of publicity and outreach, the board agreed on three specific goals. First, the board will develop a list of organizations that might be interested in board presentations or exhibits. The meeting dates for these organizations will be used to develop a calendar of events that will allow board members to represent TACF at these events. Second, using the presentation already developed by board member John Frampton of N.C. State University, the chapter will develop a Carolinas Chapter-specific PowerPoint presentation to be used by chapter members for recruiting and outreach. Finally, the board set a goal of getting one article on the chapter published in a regional periodical during 2003. If you are interested in helping with publicity and outreach, please contact secretary Gene Spears.

The board decided that the major budget initiative for the remainder of the year will be to develop a chapter endowment, to be called the *Carolinas Chapter of TACF Endowment Fund* (kind of lengthy, but accurate). Initially, the endowment will be funded by money from charter memberships; we already have \$4,260 available for the fund from this source. If you are interested in helping develop this endowment, please contact K.O. Summerville.

The chapter's spring 2004 meeting will be at Crowder's Mountain State Park near Charlotte in late April or early May. If you would like to help make arrangements for this exciting event, Steve Barilovits is the board member to contact.

Saving the best for last, the board spent a considerable amount of time discussing the chapter Mother Tree Project. The board approved expanding the Mother Tree Project to include the incorporation of new lines of blight resistance (presently, TACF breeding efforts are focused on descendants from two trees, Clapper and Graves). Paul Sisco will coordinate work by the Breeding Plan Committee (Paul Sisco, Lewis Acker, K.O. Summerville and John Frampton) to flesh out the breeding plan by the first meeting in 2004. The plan will include the development of new sources of oriental resistance and include lists of historical and interesting potential new oriental sources. The committee will also produce a list of current chapter plantings and potential sites for new

plantings. If this committee's work interests you, please contact Paul Sisco.

In a volunteer organization such as The American Chestnut Foundation, nothing gets accomplished without the efforts of you the members. If you have the time and the inclination, please contact your board members and get involved.

Gene Spears, Chapter Secretary



Chapter board members at meeting in Gill State Forest near Crossnore: (front row, l to r) Ron Myers, John Frampton, Hugh Irwin, Louis Acker, (back row, l to r) Gene Spears, K.O. Summerville, Paul Sisco, Jack Johnston, Steve Barilovits, III and Don Surette. Absent board members: Joe James and Bob Wilson.



Louis Acker (right) points to a potential mother tree while accompanied by fellow board members (l to r) Steve Barilovits, IV, Steve Barilovits, III, Jack Johnston and Hugh Irwin. The group visited this surviving chestnut on Spanish Oak Rd. near Newland following the August board meeting.

Featured Chestnut Tree Hunters for 2003

Many chapter members contact us to let us know about candidate trees for pollination, and we are very grateful to all of them. A small group of chapter volunteers has been especially helpful the last couple of years, and we would like to recognize them here as our "Featured Tree Hunters for 2003."

Paul Sisco

Louis Acker and Allie Funk, Ashe County, NC.



Louis and Allie have hunted down over 20 flowering American chestnut trees in the northwestern part of the state. Louis is a geologist with the NC Dept. of Transportation, while Allie is a Professor of Sociology and Social Work at Appalachian State University in Boone.



Mark Rogers, Haywood County, NC

Mark Rogers, who works for Blue Ridge Paper Company in Canton, has been taking great care of a group of surviving American chestnut trees he discovered on Lickstone Ridge in

Haywood County, NC. Mark clears around and fertilizes the trees to promote flowering.

Joe James, Oconee County, SC

Joe James, on right, is teaching two summer interns how to recognize an American chestnut. Joe, an orthopedic surgeon in Seneca, SC, has found many good surviving trees in upper SC, northern Georgia, and southwestern NC.



Jack Johnston and Paul Vonk, Rabun County, GA

Jack Johnston and Paul Vonk, both residents of Rabun County in far NE Georgia, often work as a team in searching out American chestnut trees in north Georgia, Alabama, and southwestern NC. Here Jack stands in front of a group of trees he grafted at his house near Clayton, GA.



Paul Vonk is clearing weeds from around a surviving American chestnut tree on Goat Bald. Paul lives in Mountain City, GA.



Carolinas Chapter - TACF Meeting Announcement

When: Saturday, November 1, 2003

Where: Conference Building, USDA Forest Service's Bent Creek Experimental Station, 1577 Brevard Rd., near Asheville, NC. See the Carolinas Chapter website, www.carolinas-tacf.org, for directions or call the Carolinas Chapter office at 828.281.0047.

Lunch: Be sure to bring your own bag lunch. Soft drinks will be provided by the chapter.

Registration Fee: *Free!* The registration fee has been waived.

Agenda:

- 10:00 am - 10:30 am Welcome
- 10:30 am - 11:00 am Carolinas Chapter Updates
- 11:00 am - 11:30 am Mother Tree Program Update
- 11:30 am - 12:00 pm Featured Speaker
- 12:00 pm - 1:00 pm Lunch
- 1:00 pm - 3:00 pm Field Tour on Bent Creek Experimental Forest (visit 2 sites)
- 3:15 pm Wrap-up
- 3:30 pm - 5:00 pm Short Board Meeting
- 5:00 pm - 6:30 pm Group Dinner with Board Members, invited guests and potential board members



**Featured Speaker for 2003
Bob Patry, Avery County, NC**

Bob is an active retiree who lives during the summer at Land Harbor in Avery County. Besides doing numerous speaking engagements on behalf of the Carolinas Chapter, Bob has a hobby of making hiking canes from various woods. In the photo, he is showing his collection to Steven Slack, one of our National Forest Foundation summer interns.

Featured Grower for 2003

Brooke Haworth, Henderson County, NC

Brooke and the crew at NC State University's Mountain Horticultural Crops Research Station in Fletcher have done an outstanding job of growing seedlings of native and backcross chestnuts. Brooke enjoys a yearly canoe trip in the Boundary Waters of her native Minnesota.



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One Oak Plaza - Suite 308
Asheville, NC 28801

