

Chestnut Mast



Volume 6, Issue 2 Newsletter of the Carolinas Chapter of The American Chestnut Foundation Harvest 2004

2004 TACF National Meeting

North Carolina welcomed nearly 200 members of The American Chestnut Foundation as Asheville played host to the 21st Annual Meeting, October 29-31, 2004. About 40 members from the Carolinas Chapter attended.

During the Friday evening reception at the Holiday Inn SunSpree Resort, Marshal Case, TACF President and CEO, made brief opening remarks followed by the featured speaker for the evening, Charlotte Ross, presenting



Marshal Case, TACF President and CEO, welcomes members to the annual meeting.

The Role of the Chestnut in Appalachian Life. As a folklorist specializing in Appalachian culture, Dr. Ross wove a detailed history of the people who settled the Appalachian mountain region, pulling the audience in by posing questions as the story unfolded. She spoke of her childhood experiences as one of the last generations to witness first-hand the "old-timey" ways. As she recounted pre-blight stories of the plentiful American chestnut tree, her verbal crafting

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2004 Summer Pollination

Thanks to support from the National Fish and Wildlife Foundation, the Carolinas Chapter had the services of two summer interns. Steven Slack, a graduate of Warren Wilson College returned for a second year, providing experience for the team, while Austin Wagner of Asheville-Biltmore Technical College added his enthusiasm and love of the outdoors.

Northwest NC Region: Bob Patry of Land Harbor in Avery County, NC, alerted us to a large American chestnut tree surviving next to the parking lot of the apple barn at the Moses Cone Estate near Blowing Rock. Thanks to Bob Cherry and Chris Ulrey of the Blue Ridge Parkway for permission to pollinate the tree and to K.O. Summerville of Garner, NC, for driving up to help out on a weekend.

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. We were able to bag two of the trees with the aid of a bucket

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Steve Barilovits, IV, next to a flowering American chestnut tree at Crowders Mountain State Park.



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New CC-TACF Website Launched: www.carolinas-tacf.org

The Carolinas Chapter of The American Chestnut Foundation has a newly designed website which is dynamic and full of content. It will be a great communication tool for our members and will attract people want-

ing to join us and to help us with our activities.

The Carolinas Chapter was very fortunate in finding the right person and company to build the new website. David Stanfill, owner of SayItOnTheWeb, and his associates quickly embraced our mission to help restore the American chestnut to the forest. The work they have done for our organization reflects the cause for which the Chapter proudly stands. Stanfill and his associates truly are advocates of our cause.

When you first log onto the new site, you will see an animated introduction that captures graphically the essence of our mission

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THE AMERICAN CHESTNUT FOUNDATION

Carolinas Chapter

The American Chestnut Foundation

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President's Message

Greetings to all members and friends of the Carolinas Chapter of the American Chestnut Foundation. We, as a national organization, are doing just great! With over 5,000 members nationwide and continued advances in the breeding program there appears to be an ever brightening future for the American chestnut tree. There has never been a more exciting time to be part of such a dynamic volunteer movement than right now.

A historic event has occurred during the past year, which will have far reaching ramifications for decades to come. Our Foundation, under the direction of our very fine President and CEO, Marshal Case, has issued a Memorandum of Understanding with the U.S. Forest Service. This agreement will allow cooperative access of TACF to the vast national forest lands of the Eastern U.S. for the purpose of planting blight resistant chestnuts back into the natural range. I foresee this agreement continuing for many decades. It may even provide a precedent for other agreements affecting *Castanea dentata* or any of the other 26 hardwood species affected by foreign pests.

Increasing our membership is always a concern of the Chapter. Ask your friends to visit our newly improved website. They can join over the good ole' Internet or by use of a brochure. Also, we expect to offer multi-year memberships as an option later this year.



The board has decided to encourage regionalization of hands-on activities such as planting, pollinating, and nut gathering with an experienced member in charge of organizing and teaching. The goal is to have one or two activities a year in each member's geographic area.

Finally, I would like to mention the breeding efforts in two distinct, but related areas. First, the Meadowview program continues on schedule. Only 2,000 or so nuts were produced for planting in the seed orchard in 2004. The expected number was 5,000 but was reduced by a very late freeze after an early leaf out. These seed orchard seedlings are about 94% American and after screening for *Cryphonectria* resistance, will be used to produce the nuts to begin out-planting in the wild, perhaps in a few years.

"A historic event has occurred during the past year, which will have far reaching ramifications for decades to come."

The other disease, *Phytophthora cinnamomi*, the causal agent of root rot disease (also known as ink disease), affects the chestnut range below the Mason-Dixon line and below approximately 3,500 ft. elevation. It is 100% lethal to American chestnut, but

Asiatic chestnut species (*C. crenata* and *C. mollissima*) are largely resistant. John Frampton at N.C.State, Paul Sisco, TACF regional director, Steve Jeffers at Clemson University, and myself are working in two groups to screen our previously developed *Cryphonectria* resistant trees for resistance to the dreaded *Phytophthora*.

Thanks for your support and friendship. Come see me at my farm in Seneca and I'll give you a tour.

Joe James, Chapter President

The American Chestnut—Zippity-do-dah, Zippity yeah!!!

Remember the Disney movie, *Song of the South*, and the lyrics of the song sung by Uncle Remus? "Zippity-do-dah, zippity yeah. My, oh my, what a wonderful day!" I feel like singing that song on any day I see a flowering American chestnut tree surviving in its natural environment. I want to sing it any time I visit an orchard of backcrossed American/Chinese trees that will provide the progeny that will help restore the American chestnut as the "King of the Forest."

I am excited about the future of the American chestnut tree. The tree has done its part to struggle against the Chestnut bark blight to survive to a time when researchers, with the help of volunteers, can develop a blight resistant, 94% American chestnut tree that when replanted in the forest holds the promise of sustaining itself.

I am impressed with the enthusiasm and excitement of all who embrace the effort to restore the American chestnut. We are true stewards of the environment and have joined in an effort that will be successful in time. Our efforts may stem from our individual commitments after learning of the American chestnut story. More likely, as in my case, the effort stems from the legacy of the American chestnut tree passed down by a father, mother, grandparent, aunt or uncle. Every one of us involved in the effort to restore the American chestnut tree as the "King of the Forest," scientists, foresters, summer interns, volunteers, and others, will be able to pass on the legacy to our children and grandchildren. The history of the American chestnut tree—its survival and restoration—links our ancestors, our current generation, and future children and grandchildren. All will be proud that we helped bring back the American chestnut tree.

Doug Gillis, CC-TACF Board Member



Website

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to restore the American chestnut tree. The introduction is a call to action for people, especially first time visitors, to enter the site, learn what the Carolinas Chapter is about, and to join us in our effort and activities.

After clicking on *For more information >>>* to enter the website, you will see under the Carolinas Chapter banner the keywords; **About, Events, Resources, Join, and Contact Us.** These words can be clicked on to access the corresponding page containing additional information and links.

SayItOnTheWeb has designed and programmed the website with extensive database driven applications which enables the Chapter to place a tremendous amount of information on the pages. We will be able to easily load new information and pictures, keeping the site current. The viewer will be able to look at what he or she chooses and easily return to the *Home* page or to the *Menu* to further navigate the site. SayItOnTheWeb



has recreated our Chapter seal and logo, making both sharper and more vibrant. We will be able to use the original symbols on other electronic media and on printed material.

Inside the pages, members and visitors will find informational articles, Chapter newsletters, a calendar of events, picture albums, and links to other recommended websites. Site visitors will be able to download and print membership applications and forms for volunteering. People will be able to learn about opportunities to help with pollinating American chestnut trees, harvesting nuts,

to report the location of flowering American chestnut trees to the Chapter, to offer to donate land for growing trees, and to contribute money to help support the Chapter's work. Visitors will be able to subscribe electronically to receive announcements. Comments and questions can be sent through the **Contact Us** page. You can sign the Chapter's guestbook, providing contact information for our records, and for followup regarding interest in joining the Chapter and helping with activities.

Get online at www.carolinas-tacf.org and check out the newly designed Carolinas Chapter website. If you need help, ask a friend. If you do not have a computer, visit your local library or other facility that has Internet access. You will be very pleased with the work of SayItOnTheWeb and the new opportunities the website provides the Carolinas Chapter.

Doug Gillis, CC-TACF Board Member

Carolinas Chapter Members Hike Pilot Mountain

Steve Barilovits and Doug Gillis organized a hike on October 9 for Carolinas Chapter members. Nineteen people showed up on a very pleasant Saturday. Nine people who joined in the fun were not members of the Chapter and two were visiting the park on their vacation, saw our signs, and came along. An instructor and several students from Johnson C. Smith University in Charlotte drove up for the hike and instructional session.

The intent was to provide an outing for our Chapter members and to help them identify American chestnut. Both chestnut and chinkapin trees are growing there. Pilot Mountain State Park Superintendent, Andy Whittaker, gave a short history of the state park. Paul Sisco led a discussion about the disease history and TACF's breeding program. An informal instruction period on leaf, stem, and bur identification was held. Then we set off to look for trees. Superintendent Whittaker led us to see a 9" DBH, 50+ ft.

From the diligent work of Steve Barilovits, III, good relations with the state park system have been created. As a result of his efforts the Chapter now has a permit to

do chestnut work in all of the parks in the system. This will be very valuable in locating American chestnut breeding parent trees for the Chapter's backcross-breeding effort, especially for low elevation sources.

K O. Summerville, CC-TACF Board Member

If you would like to see more such outings offered, please let your nearest board member know or send an email to carolinas@acf.org.



Fresh air, sunshine and a perfect fall day provided the backdrop for an educational hike on Pilot Mountain.

Growers' Tips

We continue to experiment with methods for protecting chestnut seedlings from herbicides and deer. Our preferred method of weed control is: Before bud break, spray Roundup plus a pre-emergent herbicide such as Princep (Simazine) at recommended rates on label. In early July, spray Roundup again by itself. Just after Labor Day, do a final spraying with Roundup alone.

Protection against weed competition is very important — especially against grass. Fescue grass is one of the worst enemies of chestnut seedlings. However, it is very important not to get any Roundup on leaves or young bark. Chestnut seedlings have chloroplasts in their bark and are very sensitive to Roundup damage. To guard against accidental spraying, we are putting an 18" TreePro tube (www.treepro.com) around each seed at planting. Do not use a tube any taller than 18", because it will adversely affect tree growth. As the seedlings emerge

from the tubes, we surround them with 100" circumference 4' high galvanized wire fencing, available in 50' or 100' lengths from home supply stores. A 100' length roll makes 12 100" cages. To support the cages, we use plastic or hardwood stakes plus removable cable ties made by Thomas & Betts (Cat. # L-8-50R-0-D), also available from home supply stores. Four feet of fencing seems to be enough to discourage deer browsing or buck rub in our area, where food for deer is abundant and deer populations are not large. Where populations are higher, taller and more secure fencing is necessary.



Paul Sisco, Ph.D., TACF Regional Science Coordinator

Awards

The following awards were presented at the 2004 TACF national meeting in Asheville. (Wording in italics appears on award.)

Marshal Case. Rex Mann, President of the Kentucky Chapter, gave an award of recognition to Marshal Case for his work in obtaining the partnership with the USDA Forest Service.

The Georgia Chapter. The Georgia Chapter received approval to become an official TACF Chapter at the board meeting. Chapter President, Don Davis, accepted the award on behalf of the chapter. *In honor of the great commitment and strong efforts of the people of Georgia to gather and work together to preserve and restore Castanea dentata and form a new chapter of The American Chestnut Foundation within the state of Georgia.*

The Ohio Provisional Chapter. This provisional chapter is on its way to becoming an official TACF Chapter, hopefully, by next year. *In honor of the great commitment and strong efforts of the people of Ohio to gather and work together to preserve and restore Castanea dentata and form a provisional chapter of The American Chestnut Foundation within the state of Ohio.*

Burnie and Essie Burnworth of the Maryland Chapter. *In recognition of truly exceptional volunteer work, dedicated service and a strong commitment to restore the American chestnut to the eastern forest ecosystem.*

Bruce Wakeland, former Indiana Chapter President, and on the TACF Board. *TACF member since 1985. Indiana Chapter President 1998-2003. In recognition of dedicated service and a strong commitment to restore the American chestnut to the eastern forest.*

Dr. Anne Myers, of the Massachusetts Chapter. Dr. Gary Carver of Carver's Carvings presented an award of a chestnut bird carving to Dr. Myers at the meeting. A plaque has been sent to her with the following dedication: *Massachusetts Chapter Science Coordinator and Treasurer. In recognition of truly exceptional volunteer work, dedicated service and a strong commitment to restore the American chestnut to the regional forest ecosystem of Massachusetts.*

TACF National Meeting

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evoked a deep lament at just what we have lost since the blight ravaged our forests.

Saturday morning's general session opened with Marshal Case providing an update on new chapters. There are 11 chapters, soon to be 14. Georgia is the most recent having achieved "chapter-hood" in October. Other states expecting to become full-fledged chapters include Alabama, Ohio, and Virginia. There are now about 5,200 TACF members.



Dr. J. Hill Craddock presents the latest work on the Chattanooga Chestnut Tree Project to members.

Case spoke of the official Memorandum of Understanding with the USDA Forest Service, which establishes a framework for the two organizations to work together to introduce highly blight-resistant American chestnut trees into public forests within the tree's native range managed by the Forest Service. He also spoke of the agreement with Peabody Energy to test plant American chestnut seeds from TACF's Meadowview, VA, research orchards at the site of Peabody's proposed Thoroughbred Energy Campus. This campus is a planned 1,500-megawatt coal-fueled electric generating station to be located on reclaimed mine lands near Central City, KY. The American Chestnut Mined Land Reclamation Project is a five-year, \$100,000 study funded by Peabody, the world's largest private-sector coal company. Case hopes that TACF's help in cleaning up problems and helping Peabody meet their obligations will lead to more such collaboration with the utility industry.

Next, Ray Hornback, Vice Chair for Development, revealed the location of next year's national meeting as Lexington, KY. He briefly recapped Thursday's and Friday's cabinet discussions that involved encouraging member drives and possibly instituting a multi-year membership. Fundraising this past year has been the best in history, he said. Eight percent of the overall budget depends on the end-of-year campaign. Hornback then introduced Essie Burnworth, President of the Maryland Chapter, who enthusiastically recounted a promising program in Maryland called American Chestnut Scholars, which allows up to 30 students to join for a total of \$100. The program ties American chestnut into the science curriculum for grades 8-12. Students conduct real research projects, guided by teachers and Professor Donald Nuss of the University of Maryland. There are now 16 member schools in Carroll County.

Hugh Irwin, Vice Chair for Science and Carolinas Chapter member, reported on testing protocols for backcross resistance and the distribution and deployment policy. He said there is a need to develop new lines of resistance and that a new scientist will be hired for the Meadowview station. Irwin also said that in 2006 there is going to be a science review, the last one being in 1999. This review will entail an external review by outside scientists to address critical questions.

Sara Fitzsimmons presented work she is doing at Penn State University for TACF on a national breeding tracking database.

Later in the morning Bill Alexander, Biltmore Estate's Landscape and Forest Historian for



U.S. Rep. Charles Taylor, R-11th Dist. of NC, addresses members during lunch at Biltmore's Deerpark Restaurant.



26 years, gave a thorough and interesting slide presentation as a prelude for the afternoon field trip on the history of the Biltmore Estate and the birth of forestry in North Carolina.

Four concurrent workshops were held after the morning break. Dr. James Hill Craddock from the Department of Biological and Environmental Sciences, University of Tennessee at Chattanooga talked about the *Chattanooga Chestnut Tree Project*. The project involves the goal of chestnut restoration through research on biological control of chestnut blight, hypovirulence and selecting locally adapted chestnuts.

Dr. John Frampton and graduate student, Mollie Bowles, of North Carolina State University's



Elizabeth Feightner (left), San Diego, CA, and Alma Spicer, Pisgah Forest, NC, pose in the B_2F_2 planting at Biltmore Estate.

Department of Forestry, presented current research on *Genetics of Resistance to Phytophthora cinnamomi in Chestnut*.

Dr. Scott Merkle, Professor of Forestry, University of Georgia, is studying how to confer blight-resistance genes to the American chestnut through genetic engineering and tissue culture propagation.

To round out the concurrent sessions, Gary Carver, Don Stevens, and Zac Guy presented a non-scientific workshop on woodworking with chestnut.

Buses departed at 11:30 am for the Biltmore Estate, where a lunch was served during which U.S. Rep. Charles Taylor, R-11th Dist. of NC, spoke to the group. Rep. Taylor helped TACF obtain a \$250,000 appropriation from Congress. After Rep. Taylor's talk, attendees took a short walk to the B_2F_2

chestnut planting near the Deer Park restaurant. These chestnut trees were planted during the TACF national meeting in 1997. Last spring, the average height of the 87 surviving trees out of the 200 planted was 9 feet. Attendees also toured the Biltmore House and the winery for the remainder of the afternoon.

On Saturday evening, a banquet and presentation of awards was held (see sidebar, p. 4), followed by keynote speaker Donald E. Davis, author of *Where There are Mountains: An Environmental History of the Southern Appalachians*. Davis holds a doctorate in sociology and teaches at Dalton State College in Dalton, Georgia. He spoke of his childhood in Georgia, the significance of the American chestnut on the ecology and culture of Appalachia, and read moving passages from his book. Afterward, he held a book signing.

Sunday morning's technical presentation concluded the formal part of the meeting. Dr. Douglass Jacobs, Assistant Professor of Forestry at Purdue University, spoke of silvical characteristics of American chestnut and the need for more information on plantation culture prior to widespread reintroduction of chestnuts to the landscape.

Clint Neel and Joe Schibig presented their ecological studies of American chestnut in Kentucky and Tennessee and their efforts to compile data on tree characteristics, site conditions, tree health, associated species, GPS coordinates, and soil classification to aid in the understanding of the ecosystem associated with surviving chestnut sprouts.

Several members then shared stories and information, and the meeting came to a conclusion. Two optional post-conference tours were available for participants: one to the Grove Arcade Public Market in downtown Asheville and the other to Cherokee, NC.

Jane Frampton, Editor



Beth Daniels, TACF national membership director, helps Don Davis during his book signing.

A Chestnut Curriculum for Older Students

Several initiatives are now under way nationwide to use chestnut in the curriculum for older students. The Charlie Chestnut curriculum, an excellent online program developed by the New York Chapter, is aimed at elementary school kids (www.charliechestnut.org). The Maryland Chapter is now involving advanced high school science classes in an American Chestnut Scholar Program (www.mdtacf.com).

In the Carolinas, Mary Ann Asbill of Saluda, NC, has started using chestnut in her school, called the Eleanor Irene School, where she educates her sons Egan Asbill-Beck, age 7, and Patrick Asbill-Beck, age 13, plus several other students. Her son Casey, age 16, is enrolled at Asheville-Buncombe Technical College and is also participating in the study of chestnut.

The Saluda property of Mary Ann and her family is a living outdoor chestnut laboratory. Her boys have already identified 57 individual chestnut sprouts on their land, four of which are about 15 feet tall. They also have eight Chinese chestnut trees and many chinkapins. TACF's Southern Regional Office in Asheville sent the students a set of articles about chestnut in the early 1900s before the blight, while TACF's main office in Bennington, VT, mailed them a set of TACF Journals.

Mary Ann, her husband Daniel Beck, and all three of her sons have taken out individual memberships in The American Chestnut Foundation, the first time in The American Chestnut Foundation's history that all members of a family have joined. Mary Ann plans to use chestnut as a way of teaching her sons and other students biology, ecology, and history. The Asbill-Becks also have some cleared land on their Saluda property where they hope to plant and care for one of the Carolinas Chapter's BC_3 chestnut orchards.



Egan and Patrick Asbill-Beck stand next to an American chestnut.

Paul Sisco, Ph.D., TACF Regional Science Coordinator

Research Update: Phytophthora Root Rot

The *Chestnut Mast* ran an article by Mollie Bowles (Spring 2004, p. 7) outlining the history of *Phytophthora cinnamomi* and her proposed master's project with Dr. John Frampton at North Carolina State University in Raleigh. *P. cinnamomi* causes root and crown rot on American chestnut as well as on thousands of other plant species throughout the world. Phytophthora root rot often is lethal to American chestnut and often occurs where soils are poorly-drained with a high clay content, like many soils of the Piedmont region in the South.

Because Phytophthora root rot is so common in Piedmont soils, the Carolinas Chapter has made it a priority to breed American-type chestnut trees that are resistant to root rot as well as to chestnut blight. Both Chinese and Japanese chestnut trees have resistance to *P. cinnamomi*, but we do not yet know how many genes control resistance in those species. Two research projects going on in the Carolinas are designed to try to answer that question.

Research at North Carolina State University

Mollie Bowles and her advisor, Dr. John Frampton, are continuing their studies of the genetics of resistance to root rot in chestnut. Based on last summer's results, their preliminary findings were:

1. American chestnut seedlings are killed quickly by the root rot.
2. Chinese chestnut seedlings are resistant and show no symptoms after inoculation.
3. F₁ hybrids that are 50% Chinese and 50% American also are resistant to root rot.

Therefore, it appears that resistance to root rot is completely dominant. This is different from the situation with chestnut blight, where F₁ trees are only moderately resistant.

This past summer, Mollie screened a Graves BC₃ family of 96 seedlings that had been provided by the Kentucky Chapter. None of these 96 seedlings survived inoculation. She also made two crosses at Meadowview

to create BC₁ families for screening. Since the F₁ parent of these crosses should be resistant, the BC₁ families should segregate for resistance and provide data to help determine how many genes control resistance in the Chinese grandparent, 'Mahogany'. She also plans to do DNA analysis of all the

BC₁ seedlings to determine which chestnut chromosome(s) contain the resistance gene or genes from the Chinese grandparent.

Dr. Joe James of Seneca and Dr. Steve Jeffers of Clemson University

Dr. Joe James, retired orthopedic surgeon who is now President of the Carolinas Chapter, collaborated on a project this summer with Dr. Steve Jeffers, a plant pathologist at Clemson who specializes in diseases caused by Phytophthora on nursery crops and trees.

Joe and Steve screened several families of open-pollinated Clapper BC₂ trees provided by Dr. Fred Hebard at the Meadowview Research Farms. Because the seed were from open-pollinated trees, the male parent of each seedling was not

known. Overall, Joe found that about 25% of the open-pollinated BC₂ seedlings survived suggesting that the 'Clapper' BC₁ parent used at Meadowview probably had resistance to root rot.



Dr. Steve Jeffers conducts research on root rot in chestnuts.



Tubs for screening chestnut seedlings for root rot work well for Joe James.

Both projects will continue next summer, and the results will be very important to our Chapter.

Paul Sisco, Ph.D., TACF Regional Science Coordinator, Asheville, NC

Pollination *continued from page 1*

truck, but wet weather later in the season interfered with pollination and harvest. Thanks to Randy Burgess, Ted Oprean, and the staff of the Pisgah Ranger Station, USDA Forest Service, for support. One of the difficulties of chestnut pollination is that each tree needs to be successfully visited three times: once for bagging before the female flowers are receptive, once for pollination, and once for harvest.

Jack Whisnant alerted us to a tall surviving tree in the front yard of Max Kimmel in Haywood County, NC. With the assistance of David Messer and a bucket truck rented from Haynes Electric Company of Asheville, we successfully pollinated the tree, getting more than 100 nuts back even after the passage of Hurricanes Frances and Ivan!

Frank Hollifield of Little Switzerland had two American chestnut trees we were able to pollinate this summer. On a clear day, we were treated to a gorgeous view of Hawksbill Mountain and Table Rock.

Jack Webb of Mars Hill allowed us to pollinate the American chestnut tree in his side yard for the fourth year in a row. Thanks to Ashley Carter for alerting us to its location.

Taylor Barnhill and the congregation at the Church of the Holy Spirit in Mars Hill permitted us to pollinate a surviving chestnut tree in the side yard of the church. Taylor's Sunday School class also planted an American chestnut tree on Easter of this year, symbolizing the resurrection.

Chris Ulrey of the Blue Ridge Parkway and his staff also allowed us to pollinate several trees in the campground near the Pisgah Inn.

Monadnocks in the Piedmont: Monadnocks are isolated mountains rising up out of a relatively flat region. In upper SC and the Piedmont Region of NC, several of these monadnocks have surviving American chestnut sprouts on them. These include Table Rock and Kings Mountain in SC, and Crowders Mountain, South Mountain, and Pilot Mountain in NC. Steve Barilovits, III and IV, Joe James, Ron Myers, and K.O. Summerville worked on locating and setting up pollinations for trees in these unusual locations.

Southwest NC Region: Thanks to the chestnut-hunting skills of Jack Johnston of Rabun County, GA, we were alerted last year to the presence of several flowering American chestnut trees on Goat Bald, a western spur of Wayah Bald in Macon County, NC. What a gorgeous place to work!

Upper SC Region: Joe James of Seneca, SC, continued his work to pollinate trees in up-



per South Carolina. This year Joe concentrated his efforts on a planting of hybrid B₂F₂ chestnut trees on the property of Milliken and Co. in Spartanburg. Milliken Vice President Buddy Harmon and horticulturists Rachel Ruff and Stewart Winslow gave Joe great cooperation.



Summer workers at TACF's Meadowview Research Farms strip anthers from catkins of BC2 trees for shipment to chapters for pollination. The family of Ryan Smith, at left in the photo, is from the Canton, NC, area.

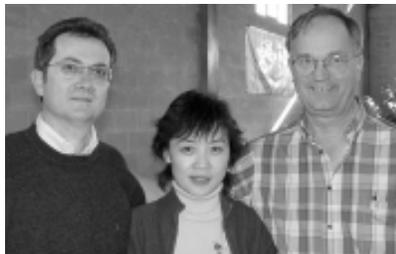
Paul Sisco, Ph.D.,
TACF Regional
Science Coordinator



Third International Chestnut Congress, Chavez, Portugal

In late October, thanks to a grant from the National Forest Foundation (www.natlforests.org), I was able to attend the 3rd International Chestnut Congress in Chavez, a town in northeastern Portugal close to the main chestnut-growing region of Portugal and Spain. The meeting included three full days of talks and posters plus an all-day field trip. Attending were chestnut scientists and growers from North and South

CASCADE project members found that *Phytophthora cambivora* was the main causal agent of the disease in eastern Europe (Greece, the Balkans) while *Phytophthora cinnamomi* was the main causal agent in western Europe (Portugal, Spain, and southern France). Both organisms were found on chestnut in Italy and parts of France.



Dr. Roberto Botta (left) of Italy, Dr. Qin Ling of China, and Dr. Paul Sisco of the Carolinas Chapter.

America, Europe, Asia, and Australia. Many of the talks were on chestnuts for human consumption, which is the main focus of chestnut growers in most of the world except in North America. The Europeans had just completed a government-sponsored 3-year project entitled CASCADE (<http://soi.cnr.it/~chestnut>), in which they had spent over two million dollars studying wild populations of European chestnuts, chestnut diseases, and the genetics of adaptive traits. Some of the topics of interest to Carolinas Chapter members were:

1. Surveys of Phytophthora on chestnut in Europe. Phytophthora root rot, also called "ink disease," is a major problem on chestnut in Europe. Surveys of the disease by

2. Studies of ring shake in chestnut. "Ring shake" is a phenomenon in trees in which the wood breaks along the annual rings either when the tree is first cut or during the wood-drying process. Dr. Patrick Fonti of Switzerland did physical analyses of trees with ring shake vs. trees without to see what features of the wood anatomy were associated with the defect. Patrick's conclusion was that there is less ring shake if chestnut trees are grown quickly under optimal conditions so that the rings are uniformly large.

3. Preservation of European chestnut germplasm. The European forest geneticists, led by Dr. Gosta Eriksson of Sweden and Dr. Fiorella Villani of Italy, have established 20 subpopulations of 50 trees each for preserving native European chestnut germplasm. The 20 subpopulations were identified by molecular and physiological characteristics. Their origins are from Turkey to Spain.

4. The next Congress in Beijing, China. There was a close vote between China and Turkey for the location of the 4th Congress, to be held in 2008. Dr. Qin Ling of the Beijing Agricultural College made the successful bid. The Congress will probably be held after the 2008 Summer Olympic Games, which will also be in Beijing.

Paul Sisco, Ph.D., TACF Regional
Science Coordinator



Chestnuts in the News

Smithsonian Magazine published a story on J. Hill Craddock and American chestnuts titled "Chestnutty" by Susan Freinkel in the September 2004 issue. Craddock is a chestnut researcher at the University of Tennessee. He recently spoke at the national TACF meeting in Asheville, NC. The article can be viewed online at www.smithsonianmag.com/smithsonian/issues04/sep04/peoplefile.html.

Chestnut Connections: Stories, Recollections and Profiles from Members

This feature shares inspiring chestnut stories and memories. Please send yours to chestnutmast@bellsouth.net.

My First Memory of the American Chestnut Doug Gillis shared this story from a friend.

Every year of my Indiana childhood, my family drove to the Smoky Mountains. With all of us packed in the RV, we started on our camping adventures. Typically this occurred in the height of fall when the mountains are colored with all sorts of golden hues.

While hiking, we stumbled upon a fully-grown American chestnut tree. Now, as a five- or six-year-old, I didn't understand the significance of this. In fact, at that time I was more interested in my friends and life in the 1980s. Dad, on the other hand, did understand. I recall him taking quite a few pictures of this tree and enjoying being in its presence.

Over the next couple of years, he claimed this as his adopted tree and our trips included a visit to "his" American chestnut tree. As a good "parent," he would check its growth and make sure the health seemed to be good. And, of course, he took more pictures. Although this was over twenty years ago, it seems like yesterday in my mind.

Through this experience, I learned about the plight of the American chestnut, and in its near disappearance. Hopefully, the American chestnut will continue creating memories for other families.

Dawn Antalick-Baker



Featured Grower for 2004

Steve Motsinger of Surry County, NC

Steve Motsinger (left) has put a lot of effort into his chestnut planting at his home in State Road, NC, near Elkin. This year alone he has battled deer, Japanese beetles, and cicadas, while carefully fertilizing his trees and spraying Roundup to control nearby weeds. Here he is pictured with Steven Slack (middle) and Austin Wagner, our summer interns for 2004.



Featured Speaker for 2004

K.O. Summerville, Wake County, NC

K.O. (left) retired from the North Carolina Forest Service some years ago and now leads an active life commuting between his home in Garner, NC, and a condo in the mountains. This year he has volunteered to make several talks on behalf of the Chapter and also serves as Vice President of the Chapter board of directors. In the photo, he and Steve Barilovits, III, of Charlotte are pictured at Pilot Mountain, where they led a fall hike for members.



THE AMERICAN CHESTNUT FOUNDATION

Chestnut Mast
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Reminder

Keep Saturday, April 23, 2005, open to attend the Carolinas Chapter meeting at Clemson University. Details later.

New members: We want to see you there!

