

The Bur

Newsletter of the Virginia chapter of the American Chestnut Foundation

SPRING 2010

VOLUME 4 NUMBER 1



Restoration Science Symposium at George Mason University Highlights Environmental Challenges and Chestnut Research Opportunities with Domestic and Foreign Partners



Dr. William MacDonald



Dr. John Scrivani



Dr. Norman Bourg



Third Secy. Luo Jun

George Mason University is in the middle of a growth spurt; but amid a host of new buildings on the Fairfax campus it still harbors a stubborn population of native chestnut sprouts on the wooded campus. These sprouts and links between GMU students and Smithsonian chestnut research plantings led Dr. Robert Jonas, head of the Department of Environmental Science and Policy to co-sponsor VATACF's annual science symposium on a multidisciplinary approach to successfully reintroduce an improved tree to the wild.

Four speakers focused on factors that may be crucial to repopulation in the heart of the original range. They drew 50 members and guests from parks and resource conservation groups who joined faculty and GMU grad students at the Johnson Center on Sunday, March 21, the first afternoon of the Spring.

Among them was forest pathologist Bill MacDonald of West Virginia University who detailed three decades worth of attempts to find viral strains that can reliably target and weaken *Cryphonectria parasitica* fungus on large numbers of chestnut in a forest setting, allowing them to survive. MacDonald has also traveled to China to consult with forest biologists there on native forest chestnut.

A look at chestnut population density and location over time using core and pollen samples and data mining from historic studies was the theme of the Virginia Office of Technology researcher Dr. John Scrivani. A former Research Director at the Virginia Department of Forestry, Scrivani is fluent in Bioinformatics and GIS studies. As a Director of the Virginia chapter, he has encouraged foresters to get the word out to owners of promising remnant sites for chestnut regeneration that could benefit from the breeding program.

Give and Get Much More

Cisco Systems founder Sandy Lerner has made a generous offer to the chapter, to spark fellow members to complete the purchase of Virginia's sixth generation B3F3 Legacy Tree.

One of her favorite British artisans recently produced a hand hammered pewter collector's spoon depicting an English oak; and Sandy was struck by the design's rugged beauty.

Knowing we all like a tangible reminder of a goal hard won, she will commission a chestnut leaf spoon limited to donors who donate \$500 toward the Virginia Legacy Tree or the Virginia Chapter's work.

A letter from the VATCF Board of Directors is on its way to you now. We hope that Sandy's vision, and the tree made possible by many hands will inspire you to respond.



Chestnuts Go To School

Teachers at local Fauquier, Fairfax, and Rappahannock County schools are very interested in bringing the science of chestnut renewal to their schools, reports Vice-President for Education Kathy Marmet.

Volunteers to plant and start chestnut stands as part of outdoor classrooms are on the rise. TACF is now seeking funding to create and distribute chestnut learning boxes to interested schools.

Here's a project where our members can get involved.

First Restoration Branch Gala To Raise Funds To Equip New Research Lab at Meadowview

Southwest Virginia friends and supporters of the American Chestnut Foundation will band together April 16 to celebrate the gift of the long awaited lab building donated by Mrs. Mary Belle Price.

The Glenn C. Price Research Lab is complete. Fittingly the first Restoration Branch event in the state will raise funds to make it functional.

The Chestnut Restoration Celebration will include a full day's activities, with guests able to tour the farm, dedicate the lab, listen to music, bid at a silent auction, feast with fellow members and friends and listen to author Barbara Kingsolver extol the many virtues of kitchen science. What better excuse for a Spring road trip. See you there

Symposium Studies Ecosystem Approach to Chestnut Restoration, from p.1

Dr. Norman Bourg, forest ecologist and program manager for the Smithsonian's Conservation Biology Institute at Front Royal, shared early results of an ongoing study to determine the best way to restore native plants and trees to forest plots overrun with exotic invaders and home grown deer. On the National Zoo site, GMU's New Century College students helped us plant a mother tree orchard to preserve the genetic variations of native chestnut threatened by deer browse.

At our request, Luo Jun, Third Secretary for Agriculture at the Chinese Embassy's Office of Science and Technology, shared with us the details of China's massive afforestation along the length of the new expressway between Shanghai and Beijing. Tens of millions of trees, shrubs and flowering plants have been installed in a 50 meter wide buffer on either side of the 1,000 mile route to combat strong winds, air pollution, and driver fatigue. He also alluded to research work by Chinese forest geneticists to improve orchard chestnuts for nut production. The Embassy smoothed the way for visits by TACF scientists in 2008 to the few remaining sites where wild forest species grow in 2008 in cooperation with Chinese forest researchers. TACF scientists have long studied the genetics of Chinese trees, the first source of blight resistance for our backcross program..

After the symposium a group of eight symposium guests and members visited five of the campus' remaining chestnuts, using an undergraduate study by Douglas Stiles. They discovered one large tree affected by blight that was not previously identified. Several hot spots for surviving chestnut have been located in Fairfax.



A planting season delayed by wet ground after record snows, got underway March 24 at Earle and Betty Martin's Stony Brook Farm in the lovely Syria Valley near Old Rag. A smooth southern slope was prepped for 260 trees March 27 by local volunteers from Rappahannock and Madison countiesAt one and a third acres, the Madison County orchard is the Virginia chapter's sixth so far in the northern half of the state.

On a windy bright Saturday 11 volunteers set in last year's backcross nuts from three new breeding lines, with randomly planted native, Chinese, and first generation cross check trees. As the orchard matures, these check trees will help staff scientists and volunteers compare habit, growth rate and blight resistance of each advanced cross with the characteristics of the original parents.

During the last week of March 29 students from Highland School in Warrenton helped adult volunteers plant 250 sprouted nuts on Rob and Betsy Porter's farm in the new Dam Orchard.

Opening new breeding territory to the south, The Nature Conservancy has dedicated one and half acres in Nelson County at their Fortune's Cove property for Charlottesville area's new Restoration Branch members to plant and care for after Easter.

The proposed prep date for Fortune's Cove is Wednesday, April 14, with planting set for Sunday April 18. Volunteers will be trained on site in the correct technique for placing and covering the nuts in prepared holes by 2010 chapter intern Katie McCune and TACF scientist Bob Paris out of Beckley, WVA.

The final orchard installation will take place at Director Mark Ohrstrom's Fauquier County farm, Old Whitewood between April 22 and 25.

In all ,we are expecting to plant 856 backcrosses from local mother trees in 2010, out of 1480 harvested. Ten lines were created. Some of the rest will go to Dr. Joe James for phytopthera root rot testing.

To protect the research orchards from predation, all of

the new plots will be enclosed by deer fences. These were found to be a necessity for the first 5 orchards planted in Floyd, Fauquier, Loudoun, Clarke and Shenandoah counties where deer abound.

Good growing seasons have pushed on the first orchards, where some two year- old trees at Mt. Zion and Roland Farms topped 30 inches by last Fall. The two orchards at UVA's State Arboretum had nearly 90 % germination success, and should be leafed out by the time we showcase them at the State Arboretum Garden Fair May 7 through 9.

Interested Tree Stewards, Master Naturalists and local VATACF members who want to help are encouraged to call or e-mail the Marshall office this week to get start times and directions for upcoming planting or enclosure schedules within your reach.

Check the vatacf.org website for orchard care opportunities in 2010 Events Calendar listings, which will be updated each month.



New Intern Hits the Ground Running

Katie McCune started the Spring planting season with zero chestnut experience, and loads of flexibility as she helped deploy orchard supplies and fill up the first 2010 orchard at Stony Brook Farm.

Katie will have no trouble up in the air this Spring as she helps chapter volunteers ready for pollination. The Tufts University graduate in Ecology studies spent the last 3 years in the cloud forests of the Southern Andes, studying condors in Argentina and Chile.

Now looking for the right graduate program to pursue, she is living in Haymarket, well positioned to travel up and down the Route 29 corridor that marks the eastern edge of American chestnut territory. And she won't get lost easily. She worked last year in Charlottesville for VATACF Board member John Scrivani at the Dept. of Forestry, helping with GIS projects. Welcome her if you drop by the Marshall office to work or take a class.

Your new e-mail addresses have saved us a \$100 in postage for this mailing, an amount we can put into mileage for our new intern, orchard supplies, training for our volunteers. You're why partners know we won't waste their time or money to achieve our mutual mission. We increasingly depend on our vatacf.org website to reach all our members and interested supporters within the state, particularly when timely updates to our Schedule of Events arises. If you can do so, tell us you want to volunteer or attend an event at vachestnut@verizon.net or call 540 364-1922 during office hours 9 - 1, Mon., Weds. & Fri.



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