Maryland Chapter

Newsletter – July 2006

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The Maryland Chapter supports the efforts of The American Chestnut Foundation to restore the American chestnut tree, identifies and preserves American chestnut survivors in Maryland and promotes educational and scientific research efforts directed at restoring American chestnut trees in Maryland.

Maryland Chapter Needs Your Help

Web Master – design and updating of web site

Membership – maintain member files/communicate with members & volunteers

Publications – help with newsletters/PR

Call Chapter President Essie Burnworth
To Volunteer (301) 762-6715

Maryland Chapter Meeting – Public Invited

Learn about American Chestnut Research By Maryland Students

- **Colleen Beall, recent Master of Science graduate of Hood College**
- **Raquel Sosnowski, 2006 graduate of Poolesville High School's Global Ecology Program**

Saturday, July 22 10:30 a.m.
Community Room of C Burr Artz Public Library at 110 East Patrick Street in Frederick

Colleen Beall is a Teacher Specialist for Middle School Science with Frederick County Public Schools. She completed a research project for her Masters Degree by studying nuts and resulting seedlings in the Maryland Chapter Orchard at Fox Haven near Jefferson, Maryland. Beall measured chestnuts planted in 2005 during their first growing season to test the effect of nut size, tree shelter size, and vegetative competition on the growth of the seedlings. Growth was measured as final seedling height and diameter, stem emergence date and the peak number of leaves on the seedling.

Raquel Sosnowski grew 240 American chestnut trees in the greenhouse at Poolesville High School for her research on the impact of soil type on growth of American chestnut seeds. She used seven different treatments to control for potentially relevant variables. One of the treatments was forest soil, which is likely to contain mycorrhizal fungi that are thought to exist in symbiotic relationships beneficial to trees. Seedlings grown by Sosnowski for the project will be transplanted to a location near the school where they will be available for future student research. Sosnowski entered her project in the Maryland Junior Science and Humanities Symposium, where she presented in March. She is one of two students selected to represent the state of Maryland at the National Youth Science Camp this summer.

Both Beall and Sosnowski worked with Hood College forest ecologist, Dr. Doug Boucher and Hood College American Chestnut Project Research Associate Robert Strasser in developing plans for their research, and both have prepared written descriptions of their research so that results can be shared with other researchers and chestnut growers.

Information about The American Chestnut Foundation's restoration efforts and the work of the Maryland Chapter will also be provided at the July 22 meeting. Light refreshments will be served.

Frederick County Public Library does not promote or endorse the views of the program sponsors or presenters.

At left, among participants in the tree planting ceremony at Green Ridge State Forest Headquarters May 26th were (l to r) Burnie Burnworth, Robert Webster, Western Region Forester Marshall Case, Executive Director, The American Chestnut Foundation (TACF), Melissa Stevens, Francis Zumbrun, Green Ridge State Forest Manager and Phil Pannill, Western Region Watershed Forester.

Columbia Tree Contributes to American Chestnut Restoration

Release prepared by Garett Taché of the Columbia Association

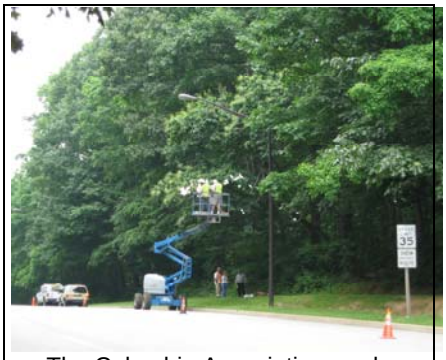
On June 26 the Maryland Chapter of The American Chestnut Foundation (TACF) and the Columbia Association cooperated to pollinate a large American chestnut tree on Harpers Farm Road in Columbia. To successfully complete the procedure, a portion of the road was blocked off and a lift was used to access 163 of the tree's flowers, which hang approximately 25 feet above the ground. "We are deeply appreciative of CA and its Open Space staff for creating this opportunity for us. None of it would have been possible without their help, especially the efforts of Jan Clark and David Campbell and his horticultural crew," said TACF Chapter President Essie Burnworth.

On June 14 the flowers were bagged by Robert Strasser, TACF Maryland Chapter Science Chair, to prevent natural pollination. On June 26 Strasser returned to apply "backcross" pollen from TACF's Meadowview Research Farm in Virginia to apply to the flowers. Once the backcross pollen was applied, the flowers were re-bagged, to remain in that state until September or October of this year. The intention is for the Columbia tree to serve as a Maryland Mother tree in the TACF American chestnut restoration effort. American chestnut trees were abundant in Maryland forests and throughout the Appalachian Mountains before being virtually wiped out by a blight fungus in the early 20th century. If the controlled pollination is successful with the Columbia tree, resulting nuts will be grown in protected orchards where they will contribute to the effort to restore the American chestnut tree to its natural range.

MDTACF's Robert Strasser and Columbia Association Horticultural Foreman Dave Campbell work together in the lift bucket to pollinate a large American chestnut tree in Columbia, Maryland.

June 2006 Pollination Effort Creates Possibility For Eleven New Maryland Lines

Maryland Chapter volunteers led by Chapter Science Chair Robert Strasser put more than 900 bags on chestnut flowers in mid-June to prevent natural pollination. Approximately twelve days later, pollen was applied to the bagged flowers with the goal of producing seed for new Maryland lines to carry out the Maryland Chapter portion of TACF's backcross breeding program. The controlled pollination process is very labor intensive. Many volunteers put in long hours carrying and moving ladders and working at the top of ladders to complete the work. Several first-time pollinators received hands on training this year and helped create the possibility of harvesting seed for eleven new Maryland lines in the fall. Many thanks to all our great volunteer helpers!!!



The Columbia Association made pollination of its big tree possible by providing a lift for both bagging and pollination. Flowers were too high to reach without a lift.

Chestnut Inoculation A Milestone for ThorpeWood Orchard

ThorpeWood staff and volunteers participated in a Chestnut Inoculation Clinic June 8th that takes the most advanced trees in ThorpeWood's American chestnut orchard to the next level of the American Chestnut Foundation's backcross breeding program.

Guided by Sara Fitzsimmons, Tree Breeding Program Coordinator for The American Chestnut Foundation, and Robert Strasser, Hood College American Chestnut Research Associate, participants followed rigorous procedures to inoculate 132 of the more than 300 trees in ThorpeWood's six-year-old orchard with the blight fungus that devastated this once dominant Appalachian tree early in the Twentieth Century.

The four-hour inoculation clinic provided hands on learning about ThorpeWoods' role in The American Chestnut Foundation effort to restore the American chestnut to our Eastern forests by breeding trees that incorporate blight resistance from Chinese chestnuts. The inoculated trees are the most advanced trees in this breeding program and are more than 90% American. Inoculation is the process of infecting trees with the blight in order to see how much resistance they have inherited from their parents. Trees that demonstrate good disease resistance will become parents of the next generation in the backcross breeding program. The inoculated trees will undergo a final evaluation in the Spring of 2007, when the best will be selected for further breeding here in Maryland and neighboring states.