

The Tree Urchin

Newsletter of the Maine Chapter of the American Chestnut Foundation

Volume 14, Issue 1

Autumn 2011

President's Report

By Glen Rea

President, Maine Chapter of the American Chestnut Foundation

A lot has happened in the Maine Chapter over the past year.

In May 2010 we planted the first two B3-F3 seedlings from our Meadowview research farms at Leonard's Mills in Bradley. These seedlings were given to the chapter by Dr. Garold Thumm, who has been a member of the Chapter for more consecutive years than any other member. Leonard's Mills was a logical location – next to the blacksmith shop. The planting was done by board members Bucky Owen and Bob Frank with help from Alan Kimball of the faculty at UMO. The trees are doing well and are approaching their third winter in Maine. Since then we have received over 20 more seeds and many of these are from members who wish to donate them to the chapter. We continue to receive seeds from our Legacy Tree at Meadowview because of the generosity of the late Slim and Helen Powell.

Our twelve breeding orchards continue to do well. This fall we will harvest our first B3-F2 seeds from Maine trees and will plant them in seed orchards next spring. The University of Maine has granted us permission to use five acres in the Penobscot Experimental Forest in Bradley, and The Penobscot County Conservation Association has generously made available land at Stetson.

This past June, we had a wonderful Restoration Gathering at the home of Rick and Beth Warren in Bangor. This was the first such event in Maine and it was highly successful due to the outstanding work of Bucky & Sue Owen and Ann Rea. We hope to have at least one of these events every year.

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Restoration Gathering a Success

The Maine Chapter held its first Restoration Gathering June 17 at the Bangor home of Rick and Beth Warren. The Gathering brought forty-three guests who enjoyed the party and learned more about the American Chestnut Foundation and its mission.

Through the Gathering we gained thirty-seven new members, and 7 memberships were renewed. The net profit from the Gathering was approximately \$12,380.00 This includes generous donations of \$5,000 from Stephen and Tabitha King in memory of Joe Floyd and \$5,000 from Sue and Bucky Owen. Both of these contributions are for development and management of the seed orchard at the Penobscot Experimental Forest.



Rick and Beth Warren.

Special thanks to Bucky and Sue Owen, Ann Rea, and Rick and Beth Warren for making this event a success.

We hope to have a Restoration Gathering in southern Maine next year. If you can volunteer to help, please contact Ann Rea at (207)945-6945 or annrea44@msn.com.

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I want to thank all of the volunteers and members of our organization for their contributions and sacrifices. It is rewarding to work with these magnificent trees and to know that in about eight years we will have Maine-grown B3-F3 seeds.

B3F3 Seed Plantings

The Chapter has received over twenty B3F3 seeds from the Meadowview Farm in Virginia to be planted in Maine. These are the first generation of blight-resistant American chestnut trees produced by TACF's back-cross breeding program. Eric Evans has done a wonderful job of nurturing these seedlings at his home in Camden.

Seedlings have been planted near the smithy at the Leonard's Mills in Bradley; at the Common Ground Fairgrounds, with our thanks to MOGFA for its support over the years; at the Bangor City Forest; at the Topsham Town Office; and on the grounds of Orono High School. Some of these seeds were donated to the Chapter by long-time members Garold Thumm, Bob BaRoss, Charlie Hudson, and Joseph Conwill, while others came from the Powell Legacy tree.



Joe Dupere, Glen Rea, Nancy Rosalie, Charlie Hudson, and Eric Evans plant two trees at Common Ground Fairgrounds.

At the Common Ground Fair this year, we were often asked, "When will blight-resistant trees be available?" It felt good to be able to say, "They're available now!"

Keep your membership current so that you can eventually receive your blight-resistant seeds! If you haven't sent in your dues within the past year, you can do so with the form in this *Tree Urchin*.

Science Committee Report

By Eric Evans

Pollination – In mid-July volunteers from the Maine Chapter of TACF pollinated five Maine American chestnut trees with pollen from selected second-back-cross trees in TACF's research farms in Meadowview, VA. This continues our work of producing third-back-cross trees for our breeding program in Maine. Arborist Didier Bonner-Ganter roped himself up into the big tree in Mariaville – at 20 miles east of Bangor it is the farthest east of any native chestnut we know of – to pollinate it for the second time (Didier did this also in 2006, but the trees we grew from those seeds have not thrived in their breeding orchard). Glen Rea made another repeat pollination – the former state champion chestnut in Orono – to increase our tree count of that line, also started in 2006. We also pollinated three new chestnuts: Glen, Nick Rockwell, and land-owner Sue Swed pollinated her tree in Wytovitlock in Aroostook County, which she planted 25 years ago; Eric Evans and Larry Totten assisted by Arborist Kyle Rosenberg of Well Tree pollinated a tree in Bowdoinham; and Eric and Aaron Grim pollinated one of the second-generation "wild" Maine chestnuts at the Viles Arboretum in Augusta. Our goal is to harvest at least 100 seeds from each of these mother trees. Then, after cold storage over the winter, we will plant some of them in our existing breeding in Unity, and others in a new breeding orchard in the town of Washington. **Here is a call for volunteers: we will need help with harvesting the seeds from these five trees in the last week of September. Call Eric (236-9635) or Glen (945-6945) if you can help.**

First Harvest of Inter-cross Seeds – In the last three years we have evaluated the blight-resistance of all of the trees in our two oldest breeding orchards, at Merryspring Park in Camden and Deer Hill Orchard in China. Starting with several hundred third-back-cross trees at each site, we have culled them down to the best 20 in each orchard. These trees all had wild Maine mothers, so they are at best only partially blight-resistant. But when they cross-pollinated each other this year, a small percentage of the new seeds got blight-resistance genes from *both* parents, so they could be highly blight-resistant.

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Next spring we will be planting all of the seeds from these intercrossovers (called B3F2) in new “seed” orchards at sites in Bradley and Stetson, and possibly two or more other towns. **Here is another call for volunteers: we will need help with harvesting the seeds from these two orchards in Camden and China in the last week of September. Call Eric (236-9635) or Glen (945-6945) if you can help.**

Blight-Resistance Evaluation – The third-back-cross trees that are now growing in our breeding orchards have varying degrees of resistance to Asian chestnut blight. The best 10% are only about half as resistant as pure Chinese chestnut trees. We evaluate blight resistance by injecting lab-grown blight fungus into the bark of each tree (we call this “inoculation”) when the trunk is at least 2” dbh (diameter at breast-height, 4.5 ft above ground)), then comparing the blight infection growth to that in pure Chinese trees over the following two years. The only orchard currently in this evaluation process is our orchard at Highmoor Farms (UMO) in Monmouth. We inoculated three of the four plots there, including 14 separate breeding lines, in June 2010. New England Regional Science Coordinator Kendra Gurney made preliminary ratings of the blight infections this June, and will return in the fall to make final selections. The selected trees will begin producing seed next year for our seed orchards, as at Merryspring and Deer Hill.

Tree Urchin Mailing

Printing and mailing the Tree Urchin is a major cost for our chapter. To reduce this expense, we would like to try using e-mail instead of regular mail to distribute the newsletter. If you have an e-mail account, please notify Ann Rea at annrea44@msn.com.

China Blog

Sara Fitzsimmons, who will be guest speaker at our annual meeting November 12, is now on a research trip to China. You can follow her blog at: http://www.personal.psu.edu/sff3/blogs/chestnuts_in_china/. This is Sara’s second trip, so she is an old China hand now.



Kyle Rosenberg pollinating the Bowdoinham tree

Volunteers Needed!

The Maine Chapter has several breeding orchards that require maintenance work on a regular basis: mowing, fertilizing, and weeding. This work is not glamorous, but it’s essential to the well-being of our trees and the continuity of our program! If you would like to help at an orchard in Monmouth, Veazie, Bradley, Unity, Morrill, or Hope, please contact Glen Rea (glenrea42@msn.com) or Eric Evans (belevans@roadrunner.com). There is no salary for this work, but seeing these trees grow is an excellent benefit package.

We also need help harvesting seeds from the five trees that were pollinated this year and the breeding orchards in Merryspring Park in Camden and Deer Hill (South China). These harvests will be during the last week of September and the first two weeks of October. The dates are not specific yet because of weather. Please contact Glen or Eric if you can volunteer. Collecting seeds is easy and fun, but bring sturdy work gloves!

Inoculating Trees

The Maine Chapter has planted and maintained hybrid trees at twelve breeding orchards, and has inoculated trees at five of those orchards. The next orchards to be inoculated will be Harold Mosher's orchard at Hope, the Veazie orchard, and the orchard in the Penobscot Experimental Forest.

Ordinarily, we think of inoculations as a way of protecting ourselves from disease, but the inoculation of Chestnut trees actually introduces chestnut blight into trees to determine whether they are blight resistant. The process involves cutting two small holes into the bark of each tree; inserting samples of blight into the holes; and sealing them long enough for the blight to do its worst. The blight damage is later evaluated by our New England science coordinator, Kendra Gurney. Trees that will not survive the blight are cut down, and the remaining trees are left to pollinate each other and produce seeds for the chapter's seed orchards. Trees in the seed orchards, in turn, will be inoculated, and the surviving trees will produce the seeds that will be distributed throughout the state.

We welcome volunteers to help with the inoculation process and, later, the cutting down of trees Kendra has determined will not survive. If you would like to help with either or both, contact Eric Evans at belevans@roadrunner.com.



Chestnut blight growing in a Petri dish.

Notes From the Treasurer

The Chapter's financial needs continue to grow with the establishment of several new orchards, which are of two different kinds: for the ongoing breeding program; and for the eventual production of blight-resistant seed once the breeding is completed. In addition, we have a gene-bank orchard at the Viles Arboretum in Augusta to preserve a stock of the genetics of Maine trees. All of these plantings require separate properties so that there is no cross-contamination of pollen. Site preparation costs vary. We find that forested sites produce much faster tree growth than old-field locations, but they are more expensive to prepare since they involve tree cutting and sometimes stumping.

Our recent fund-raiser in Bangor brought in a little over \$12,000, an impressive achievement. It also brought in 37 new members, who will be important for their expertise. The national TACF office refunds to us \$15 out of every \$40 membership fee.

Despite the recession, the Chapter is on solid financial ground for the foreseeable future.

Joseph D. Conwill, TACF-ME Treasurer.

Calendar of Events

September 26-October 16
Seed harvesting, various locations

October 21-23, 2011
TACF Annual Meeting
Buffalo, New York

November 5, 2011
Regional Chapter Meeting
Portsmouth, New Hampshire

November 12, 2011
Maine Chapter Annual Meeting
Orono, Maine

April, 2012
Seed planting at new seed orchards

June, 2012
Southern Maine Restoration Gathering
Time and place to be announced

Annual Meeting Notice!

The Maine Chapter annual meeting will be held

At 9:00 a.m.

November 12, 2011

at the Orono Senior Citizens Center

10 Birch Street,
Orono, Maine.

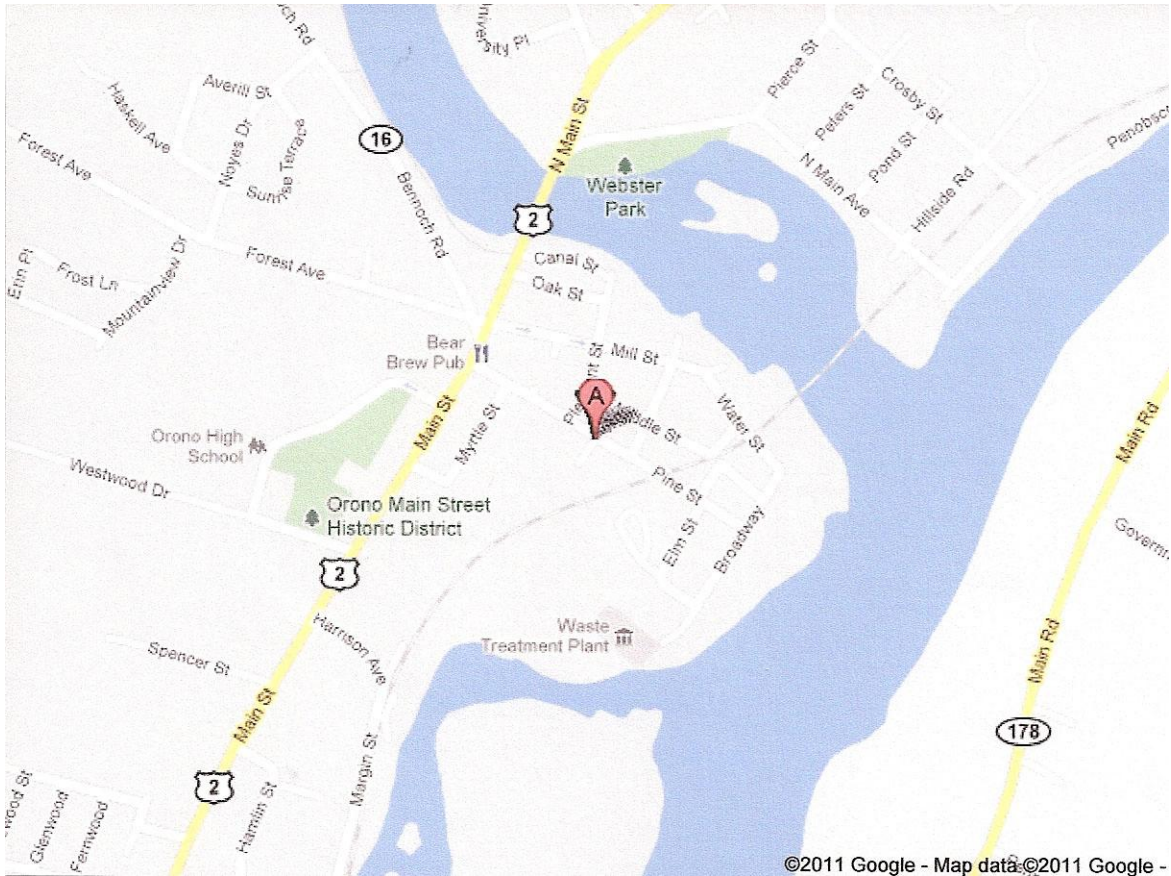
The business meeting and election of officers
will be followed by

Special Guest Speaker Sara Fitzsimmons.



Sara is the Senior Regional Science Coordinator of the American Chestnut Foundation, a Research Technologist at Pennsylvania State University, and a candidate for PhD in Forest Resources at Penn State. She visited Maine last summer to climb Mount Katahdin, and this fall she led a trip to China to research chestnut trees in the Chinese highlands. That trip will be the subject of her presentation at our meeting.

Directions to Annual Meeting



Directions from the South:

From Interstate 95 Northbound, take the exit toward Kelley Road. Go 0.2 miles. Turn right onto Kelley Road. Go 0.9 miles. Turn left onto Main Street. Go 1.3 miles. Turn right onto Pine Street. Go 0.2 miles. Take the second right onto Birch Street.

The Senior Center and Thrift Shop is a large white building beyond the new Orono Public Library.

Directions from the North:

From Interstate 95 Southbound, take exit 193 for Stillwater Avenue toward Stillwater/Orono. Go 0.3 miles. Take a slight right onto Stillwater Avenue. Go 0.8 miles. Take the 3rd left onto Forest Avenue. Go 1.6 miles. Turn right onto Main Street. Go 282 feet and turn left onto Pine Street. Go 0.2 miles and take the 2nd right onto Birch Street. The Senior Center and Thrift Shop is a white building beyond the new Orono Public Library.

Aaron Grim Joins Board

At its September meeting, the Maine Chapter Board appointed Aaron Grim to fill a vacant position on the Board. Originally from Princeton, New Jersey, Aaron has a degree in film studies and a wealth of life experiences. He is the only Maine Chapter Board member to have first-hand experience working in a chestnut orchard in Italy.



*Aaron Grim pollinating a tree at
Viles Arboretum*

Your Board of Directors

Glen Rea, President
Eric Evans, Vice President, Science
Coordinator
Nick Rockwell, Vice President,
Operations
Charles Hudson, Secretary
Joseph Conwill, Treasurer
Aaron Grim
Henry Leigh
Jay Lindsey
Alan Markert
Harold Mosher
Bill Ostrofsky
Ray (Bucky) Owen
Ann Rea
Larry Totten
Roger Willby

Glen Rea is also Chairman of the Board of The American Chestnut Foundation.
Eric Evans serves on the national Science Cabinet of TACF.

Goals in Sight

By Harold Mosher

At our quarterly meeting on September 14th our Chapter president, Glen Rea, expressed his enthusiasm at the speed with which our program is developing, saying, "We're seeing the light at the end of the tunnel." Glen has been on board with ME-TACF since its earliest efforts and that, along with his involvement on the national level, gives him a longer and broader view than my own. Just the same, I have enough reason to share in his excitement.

I became a Board member in 2006 when, that spring, we cleared one acre of beech forest on my property to begin a breeding orchard. We planted year-old seedlings produced using B2-F2 pollen from Virginia and a mother tree in Atkinson. Thanks to indigenous soil microorganisms and applications of 10-10-10 fertilizer, the trees thrived. A subsequent, adjacent one-acre plot planted in 2008, featuring seed from mother trees in Orono and Camden is equally successful. There are now burrs on trees in both plots. When Eric Evans, our science and breeding coordinator, and I inventoried both plots on September 10th, he said that plot one would be ready for inoculation next June. It is not too optimistic to say that the first seeds that have the same degree of resistance as their Chinese great-great-great-great grandparents will be produced in seven or eight years. Given that the breeding program began in Virginia only in 1983, this rapid progress is noteworthy.

To anyone that is looking for a way of leaving a mark by making a positive difference, I would strongly recommend involvement with our effort. At any level, donor, volunteer, manager, or board member, your contribution makes quick and tangible results. Come share in our excitement!



Annual Meeting Reminder

The Maine Chapter's annual meeting
Will be held at
9:00 a.m.
November 12, 2011
At the Orono Senior Citizens Center
10 Birch Street, Orono, Maine

Guest Speaker: Sara Fitzsimmons
Senior Regional Science Coordinator
The American Chestnut Foundation

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Bangor, ME 04401

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