Dedicated to restoring the American The Chestnut Tree

TACF ANNUAL MEETING 2015 with SCHATZ TREE GENETICS COLLOQUIUM OCTOBER 23 - 24, 2015 (Friday-Saturday)

PA-TACF

Replacing PA Fall Chapter Meeting Friday, October 23rd Registration opens at 7:00 am Program begins at 8:00 am Wine Reception and Poster Session at 5:45 pm Banquet 6:30 pm

Location:

Penn Stater Conference Center Hotel

215 Innovation Boulevard State College, PA

All of the activities of the Annual Meeting will be held at the



Penn Stater. If you plan to stay, mention our meeting to get the meeting discount.

www.thepennstaterhotel.psu.edu/

This meeting is for you!

SEPTEMBER 2015

Held in partnership with the Schatz Tree Genetics Colloquium this meeting will include presentations on a wide array of topics related to the genetics of our restoration work including: genome sequencing, genetic mapping, marker-assisted selection techniques, and more. This is truly a one-of-a-kind event that includes *hands-on learning opportunities such as DNA extraction in the lab* as well as a *chestnut genome-sequencing workshop* with the scientists who did the sequencing.

The talks are geared towards you, our members – providing a great opportunity to become more familiar with the science behind our breeding efforts. Keynote addresses are scheduled for both Friday and Saturday nights. <u>Registration includes meals.</u>

Participants will have small group, concurrent 1 hour tours and hands-on sessions. 1) Schatz Center – hands on lab exercise, steps in genomic selection, from seed to sequence (Teodora Best, Di Wu and Nicole Zembower) 2) Bioinformatics – computationally visualizing CC and AC genome content in the sequence back-cross trees (Nathaniel Cannon and Meg Staton) 3) BC3F3 trial at PSU Arboretum – see variation in form and resistance in advance generation families (Sara Fitzsimmons)

To register: http://www.acf.org/AM2015 register.php

REGISTRATION OPTIONS:	COST:	PRICE INCLUDES:
Full Registration (2-day pass)	\$99 per person	All sessions Friday-Saturday. Meals each day include: coffee breaks, lunch, reception (w/ cash wine bar), and dinner banquet.
Friday Day Pass	\$49 per person	All sessions on Friday. Friday meals include: coffee breaks, lunch, reception(w/ cash wine bar), and dinner banquet.
Saturday Day Pass	\$49 per person	All sessions on Saturday. Saturday meals include: coffee breaks, lunch, reception (w/ cash wine bar), and Saturday dinner banquet.
Student Registration (2-day pass)Student required upon entry.	ID\$35 per student	All sessions Friday-Saturday. Meals each day include: coffee breaks, lunch, reception (w/ cash wine bar), and dinner banquet.

VOLUME 20. ISSUE 2

PA-TACF In 2015

President's Corner

Recently I had a conversation with our past President, Don McCann, about encouraging the participation of younger generations. He was clear that our success as a foundation depends on growth both in people



and trees. I agree and I'm resolved to getting students and youth groups involved. We aren't too far from a time when the American chestnut could become a fable. In fact, we may have already crossed that threshold for a significant part of our population.

To keep that resolution, I and the current board are making recruitment of young members a priority. The Education Committee is set to establish a scholarship fund to encourage high school and college students to attend PA-TACF related activi-

ties. This will require directed donations and policies to administer how the funds are managed and granted. Since the Pennsylvania-New Jersey Chapter is the largest chapter of TACF, **small donations** from you can help put us on the road to building that fund. Give this some thought, and if you choose to help in this way, mark your check for the "**Youth Education Fund**." No contribution is insignificant when we work together in this way.

We have also resolved to involve more of you in the work of our board. Although seats on the board are limited, **chapter members are wel-come to work with our board's committees**. Our committees address the major goals of our strategic plan that's organized in three broad areas, which include research (breeding and science), outreach (education, marketing and membership), and operational matters (staffing, budgeting and fund raising). The work of these committees is necessary to accomplishing our mission, and most of it can be done via email and conference calls to avoid time and travel expense. At chapter meetings during the coming year, I'll introduce our board members who are chairing these important committees. Let us know if you want to join a committee.

Lastly, I want to urge you to consider attending the ACF Annual Meeting this October in State College, PA — TACF is partnering with the Schatz Tree Genetics Colloquium to offer its members a state-of-theart learning opportunity and workshop entitled "Integrating Genomics Tools in American Chestnut Restoration" on October 23 – 24 at the Penn Stater Conference Center Hotel.

This event is a unique opportunity to hear researchers discuss their work and to take tours that will help make the techniques of genomic research easier to understand. See TACF's website (<u>http://www.acf.org/AM2015.php</u>) for details and registration information.

Sincerely, John Wenderoth

PA-TACF Board of Directors

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PA-TACF Staff

Northern Appalachian Regional Science Coordinator Sara Fitzsimmons <u>sff3@psu.edu</u>

Orchard Manager Stephen Hoy <u>sdh177@psu.edu</u>

Chapter Administrator Jean Najjar Jmn173@psu.edu

The Face of PA-TACF In 2015

Member Spotlight Ethan Hollamby

The future looks bright when we meet new members like Ethan Hollamby. Just 14, Ethan started high school this fall in Bradford Pennsylvania. He is a strong student and takes his grades very seriously — his grade point average from the last quarter at Floyd C. Fretz

Middle School was 99.36%. His favorite subjects are science, reading, and history. He thinks that he might like to attend Penn State University when he graduates in 2019. He is thinking of studying Botany or Forestry, or something to do with Wildlife.

Further down the road, Ethan sees himself working for the Allegheny National Forest Service as a Botanist or a Wildlife Biologist. He likes forestry but doesn't like to cut trees down. Ethan was introduced to PA-TACF by his Uncle Mark while on a walk in the woods. His Uncle simply recounted a story about meeting an old man in the 70's who told him about chestnut trees and how they disappeared from our forests. This was all it took to pique Ethan's curiosity. When he got home, Ethan started researching the story of the American chestnut and he was hooked. He contacted the PA Chapter. Sara Fitzsimmons and Stephanie Bailey wel-



comed Ethan as a member about three years ago.

We look forward to welcoming more young members like Ethan!

Summer Interns Roll up their Sleeves for PA-TACF



Our Chapter was fortunate to have the assistance of two enthusiastic hard working interns this summer — who helped with a variety of projects.

Abby Heggenstaller is a junior environmental science major at the University of Vermont. She enjoys being outdoors, spending time with friends and family, and helping to restore the American chestnut! She chose to work at TACF this summer so she could learn more about chestnuts and gain experience in the forestry field. After graduating, she hopes to work as an environmental scientist, preferably with a focus on forestry.

Ethan Mansfield is a Senior at PSU, studying in the Forest Ecosystem Management program. He chose TACF for his summer internship because he wanted to be part of the ongoing research to restore the majestic American chestnut. When he graduates he hopes to search for a job in the forestry industry and is considering furthering his education.

We wish them much success in their future endeavors and hope that they will remain engaged with The American Chestnut Foundation.

Highlights of the 2015 Growing Season



Photo by Chris Woods, Forester with the PA Game Commission, NE Region From left: Steve Hoy and Clark Beebe have been checking on

Northcentral PA -

Recently, our Orchard Manager, Steve Hoy and **Board Vice President** Clark Beebe, had the opportunity to visit a newly found treasure in our Pennsylvania woods. In the adjacent photo they are standing by a native chestnut , discovered by Darren Pettyjohn & and Chris Woods of the PA Game Commission and Daniel Rhodes with the Bradford County Conservation District last fall.

Chris and his colleagues the tree seasonally since

its discovery. They collected nuts last year and have begun to propagate them. The discovery was made on their very first field visit to assess the prospects for an American chestnut project at the site. Finding this exceptional tree helped confirm they were focused on the right area. It also provided a glance into the past, as well as the promising future.



In New Jersey at Fort Dix

During a field survey for invasive plant species. Carlo Popolizio and Dennis Hamlin, biologists with the US Fish and Wildlife Service found a chestnut tree in flower

and fruit at Fort Dix. They documented the find with photos and notes and will return next month to collect a leaf and twig sample for id confirmation (a requirement of the Foundation).

These finds are exciting and we hope that by sharing these stories we might temp the explorer in you. If you think you have seen an American chestnut contact us. We will ask you to send us a leaf and twig sample. Samples should be pressed between paper towels and two pieces of cardboard - never in plastic. More details on sending in a sample can found on our website: www.patacf.org or you can call our office (814) 863-7192



Photo by Steve Hoy, PA-TACF Orchard Manager

Chapter News Briefs

Spring Growers Meeting

Over 80 members attended our Spring Growers Meeting back in March at Fort Hunter Centennial Barn in Harrisburg.



The day started off a little ruff with a messy spring snow but the day cleared up and members who braved the morning weather enjoyed a stimulating presentations by three speakers.

We had a great lunch and raised over \$400 from our

Silent Auction and raffle. Many thanks to everyone who donated items, placed bids and bought tickets.

Board Elections This Fall: Two positions are up for reelection for the 2016-17 term. Look for your ballot in the mail and cast your vote before the end of the year.

Letter from Ann Leffel

Our last newsletter noted the 20th Anniversary of the first PA Chapter Pollinations – led by Ann and Bob Leffel. Ann has

since written to share this news.

Dear Friends at PA-TACF,

Quite a lot has changed for us lately. We got older! Since helping to initiate the PA-TACF Chapter in 1995 with a small group (17) of very young, interested and ambitious folk, the Chapter grew rapidly. Over the past 20 years, Bob and I have watched as these young volunteers grew into a group, Bob Summersgill likes to



call: A.A.A.D.D. (Age Activated Attention Deficit Disorder)!

Unfortunately, we are currently placed on the disabled list since I took a nasty fall, breaking 3 ribs, spraining my left ankle and breaking my heel. in three or more places. Bob has taken up new occupations: nursing, cooking, house cleaning, etc. Well, don't feel too sorry for him. I've done it for 56 years.

I hope to advance from hop along to no cast, soon, so Bob and I can resume our work, maintaining the 300 tree orchard planted in 2002. But healing takes longer with aging!

We thank the Chapter for the gift of the beautiful flowers and good wishes when we needed them the most.

Good luck to all! Ann and Bob Leffel

The PA Chapter welcomes our newest member, Parker Fern Lingenfelter.

New parents, Sara Fitzsimmons and Robert Lingenfelter recruited this new member a little earlier then expected, on May 11th after a very busy spring planting season

Sara has been on leave this summer as she and Robert adjust to their new roles. Robert reports that "life is good!" And we wish them all the best.



Remembering a Friend and Champion

The PA Chapter lost a longtime friend last May with the passing of **Eugene J. "Doc" Dougherty of Delano, PA**. He was an active member, generous donor, and champion of the American chestnut.

Doc was responsible for recruiting many new members and planting many chestnuts. The BC-1 Quakake orchard was planted on my property in June of 2000, the first of at

least four orchards that he was responsible for getting planted. But his commitment didn't stop there. Eugene did some pollinating, searched for American Chestnuts in the woods, wrapped blighted chestnuts with soil to slow the spread; he even spent many hours selling tickets and chestnut waffles for fund raisers.

Together they identified American Chestnut trees harvested and planted chestnut research orchards around Schuylkill County.

We lost a great friend and he will be missed by all.



Chapter Science Corner

"Are chestnut hybrids truly natives?" by Dr. Douglas Tallamy Professor & Chair of Entomology and Wildlife Ecology University of Delaware Newark, DE

We often hear about how important American chestnuts were to sustaining wildlife east of the Mississippi, primarily because their prodigious annual nut production fed so many mammals and birds for months on end. Equally important (or even more from the perspective of species numbers) was the diversity and abundance of insects created each year by chestnuts. The American chestnut is a member of the Fagaceae, a plant family that includes oaks and beeches. Because caterpillars are the most important component of terrestrial bird's diets in North America, particularly when birds are reproducing, and the oaks lead other plant genera in hosting caterpillar species, it is not hard to imagine that chestnuts produced enormous numbers of caterpillars when breeding birds needed them most.

In my view, this is the most important ecological contribution of our native plants. They support food webs better than non-natives. This is not a philosophical distinction - - it is a distinction based on hard science. Some have wondered whether the backcrossed chestnuts that contain genes resistant to chestnut blight should be considered true natives. In my view they can be considered natives if they act like natives. Insects track their host plants by leaf volatiles. Larval success on leaves is, in turn, determined by the phytochemistry of those leaves. If resistant chestnuts smell and taste like the original American chestnuts, they will support the same insect load that the original chestnuts supported, and thus be just as valuable ecologically. I am currently comparing resistant genotypes with susceptible genotypes in terms of their ability to support insects, but so far I see no difference. If these results hold, no mater what we call restored chestnuts, they will behave like true natives. Good news indeed!

Dr. Tallamy is a member of PA-TACF and submitted this response to a question posed by one of our volunteers who was questioned about the value of a hybridized American chestnut relative to biodiversity. Are we really restoring a native? Dr. Tallamy is well known among native plant enthusiast for his book, "Bringing Nature Home". He provide the examples at the top of the next column.

Examples of wildlife connections

Left: Close up of Nadata gibbosa or the White Dotted Prominent feeds Principally oak and other Fagaceae. Rigtht : Protonotaria citrea or

Prothonotary Warbler with captered Nadata gibbosa.





Right: Close up of Polyphemus caterpillar Left: Polyphemus being fed to White Eyed Vireo— Vireo griseus a small

song bird found in Eastern and Southern U.S.

Status Report: Recurrent Selection Timber (RST)

In 2004, Dr. Robert Leffel presented a paper and lecture at the International Union of Forest Research Organizations (IUFRO). That paper included Dr. Leffel's proposal for an F123 program to breed blight resistant timber type chestnut trees by crossing Asian trees, for their resistance with American trees, for their timber potential. Dr. Robert Leffel is a_retired research agronomist at the US Department of Agriculture, Beltsville MD and past Science coordinator for the Pennsylvania Chapter of The American Chestnut Foundation.

In 2005, an orchard of 144 F1 trees of 15 pedigrees was planted at Codorus State Park, Hanover, PA These trees were harvested in 2009 and 600 F2 nuts planted in a new orchard at Codorus SP. The F1 orchard was inoculated with three strains of blight in June 2013 and blight cankers measured in August 2013, November 2013 and June 2014.

Current Status: The 2015 harvest looks great for the timber F1 trees. **We still need growers to plant F2 orchards in 2016.** Anyone interested in helping to grow orchards, e-mail Dave Armstrong at: <u>darm2@comcast.net</u> He will send you a list of considerations to help evaluate your site and interest.

Membership Renewal

Renew your membership support for the American Chestnut Foundation.

Please return to: The American Chestnut Foundation	Name:
50 North Merrimon, Suite 115 Asheville, NC 28804	Address:
Additional gift to the PA Chapter: \$	City: State:
To renew online visit: <u>www.acf.org/join.php</u>	Zip:Phone:
	E-Mail:
Check your address label on this newsletter to check your expiration date. Circle your membership level.	Annual Sponsor Memberships Includes Restoration Chestnuts 1.0 CHESTNUT (\$300 and above)
<u>Membership Levels:</u>	All membership benefits PLUS 4 Restoration 1.0 seeds
Individual Membership \$40.00 Receive all TACF publications and car decal	BRONZE LEAF (\$500 and above) All membership benefits PLUS 6 Restoration 1.0 seeds
Organizational Membership \$100.00	SILVER LEAF (\$1,000 and above)
L	

Ceremonial Plantings and Volunteer Outreach Help Spread Word!

It was another busy season for our chapter volunteers helping with propagation, inoculation, orchard maintenance, and educational events across Pennsylvania and New Jersey.





Top row: Julia Herbst and Larry Broadbent starting seeds at Penn State; Tony Rosati, Lee Beaumont and unknown planting at Poricy Park; Robin & Cindy Wildermuth, and Judy Alplin helping with inoculations; Tony Rosati and Les Nichols at the Burlington County Fair;

inoculation prep mark. **Bottom row:** Sara Fitzsimmons and students at Rider College Ceremonial planning; Morris Co. Fair Sign; Lynn Doll watering new plantings; Jody Timer and Bryan Hed at the Lake Erie Regional Center—demonstration planting.



The Chestnut Newsletter

Pennsylvania Chapter The American Chestnut Foundation

206 Forest Resources Lab University Park, PA 16802 mail@patacf.org Phone: 814-863-7192

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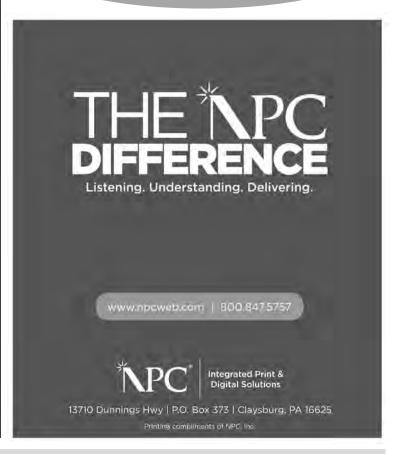
September 12-13 — New Jersey Wild Outdoor Expo / Colliers Mills Wildlife Management Area in Jackson Township, Ocean County.

October 23-25 — TACF Annual Meeting and Fall Chapter Meeting combined / State College PA.

January 9-16, 2016 —- PA Farm Show—100th Anniversary / PA Farm Show Complex and Expo Center / Harrisburg, PA

April 2, 2016 —- Spring Growers Meeting Dauphin County Conservation District, Dauphin, PA

Stay tuned into PA-TACF happenings! Visit: <u>patacf.org</u> Like us on <u>Facebook</u> Join our listserv: email Jean at <u>mail@patacf.org</u> Remember to renew! Check your member exp. date and stay current!



Get Involved! Our volunteers enjoy what they do; whether it's leading a tour, planting an orchard, representing us at events or speaking to a group. No experience necessary! We'll help get you started!

Call Jean Najjar at (814) 349-9856 or email her at mail@patacf.org

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