

Dedicated to restoring the American Chestnut Tree

VOLUME 20, ISSUE 2

SEPTEMBER 2014



The International Conservation Center (ICC) is North America's premier conservation, research, education and training facility, specializing in the care and breeding of African elephants.

ICC is owned and operated by the Pittsburgh Zoo and PPG Aquarium and is located on 724 beautiful acres in Somerset County, PA.

2014 PA-TACF Fall Member Meeting

Saturday, November 1, 2014

at the

International Conservation Center

Fairhope, PA

9 a.m. to 3 p.m., includes tour to see elephants!
\$10 donations at door welcome, but not required

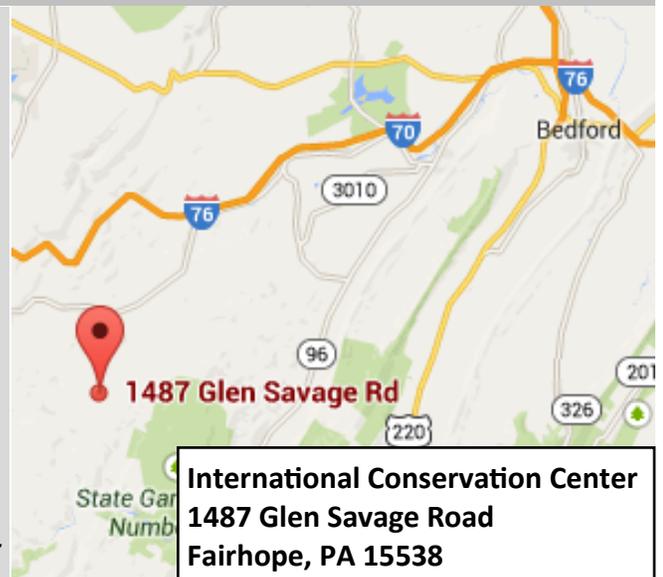
Please RSVP by **10/24/14**

mail@patacf.org or 814-863-7192



SPEAKERS (from left to right): Dr. Katia Englehardt of *University of Maryland*, Dayton Baker from the *International Conservation Center*, Phil Gruszka of *Pittsburgh Parks Conservancy*

bios on page 7



International Conservation Center
1487 Glen Savage Road
Fairhope, PA 15538

More info at www.patacf.org/fall2014/

President's Corner



**PA-TACF President,
Don McCann.**

TRANSITIONS

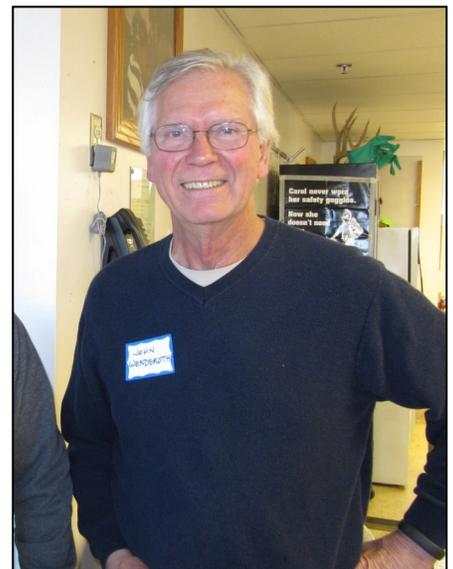
It is the season for transitions. As you know from our listserv email or having read it in the recent *TACF Journal*, Bryan Burhans has left TACF and taken the position of Deputy Executive Director with the PA Game Commission. Being a Pennsylvania boy, he has come home. When I talked to Bryan after his departure, he said he was looking forward to being a volunteer in the PA Chapter and working in the orchards. I'm confident TACF will select a superb replacement.

We, too, are going through a transition. I am concluding my two year term as PA Chapter President and Vice President John Wenderoth is preparing to take the reins as president next year. In our elections this fall, Clark Beebe is the candidate for Vice President. As a volunteer organization, our bylaws provide for a succession from Vice President to President to Past President. This assures continuity and at the same time provides for reinvigoration every two years as the transition occurs.

Often, but not always, the Vice President comes from the ranks of the Board of Directors. This is one reason we are continually on the lookout for new Board Members. One theme I have addressed in this column is the need for volunteers to step up; raise your hand and say "I'll do that." I'm beating that drum again. If you are interested in serving on the board, here's your opportunity. If you know someone who might be a good candidate, urge them to consider or let us know.

And another transition: our Chapter Administrator, Stephanie Bailey, is moving on with her husband to their next life adventure in North Carolina. So we have begun our search for a successor, and hope to introduce him or her at the Fall meeting. Stephanie does not anticipate being there so you'll have to say goodbye with a call, email, or visit to the Leffel Center at Penn State.

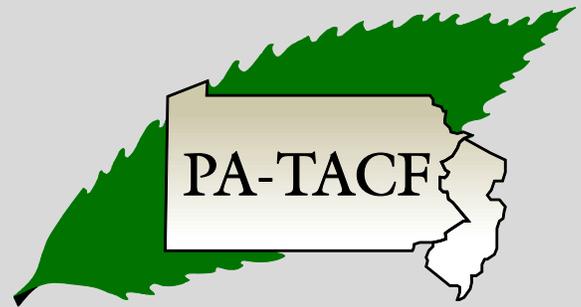
Right: Incoming board president, John Wenderoth



See what's new!



The PA Chapter office employed the talents of Jennifer Stingelin Keefer for several months this year to oversee a few important projects, one of which was a new display for event representation. Check out the calendar below to find out where you can go to see this beautiful new display. Jenn also designed our new logo for us! We think she knocked it out of the park. Thanks, Jenn!



We present our *new* chapter logo.

Though our official chapter name is still the Pennsylvania Chapter, we created the logo to reflect the inclusion of New Jersey in our membership and board representation.

An invitation to vote on the new logo was sent out to the listserv and this was the logo selected. We agreed!

If you aren't already on our listserv, please email or call to give us your e-mail and we'll add you.

mail@patacf.org or 814-863-7192



Save the Dates

October 11 - Delmarva Restoration Branch Kickoff event, Milford, DE

October 12 - WV Chestnut Festival, Rowlesburg, WV

October 16&17 – TACF Fall Board Meeting, Front Royal, VA

October 17-19 – TACF 2014 Annual Meeting

November 1 – PA Chapter Fall Meeting, Fairhope, PA

January 10-17 – PA Farm Show, Harrisburg, PA

March 20&21 – PA Private Forest Landowner Conference, Altoona, PA

March 28 – PA Chapter Spring Growers Meeting, Harrisburg, PA

Be sure to keep track of PA-TACF events by regularly visiting our calendar at www.patacf.org

Joining the listserv is easy! Write mail@patacf.org and we'll add you to the list!

Volunteer Spotlight - Clark Beebe



Clark is pictured above, at the Lord Sterling orchard in NJ, planted this spring.

Clark Beebe got involved with PA-TACF because his father was interested in the American chestnut. Clark joined TACF in 1996. He still owns his family farm in Bradford County, PA but lives in New Jersey where, through the efforts of Bob Summersgill, Clark became a regular at plantings, inoculations and pollinations. While his daughter was attending Syracuse University, he met with Dr. Chuck Maynard at SUNY ESF to help understand his work with transgenic chestnuts.

Last year Clark accepted a position on the chapter board as New Jersey Representative. In that capacity he arranged for the Regional Science Coordinator, Sara Fitzsimmons, to be a key-note speaker at this year's NJ Forestry Association Annual Meeting. He wrote an article on the American chestnut for the NJ Herald newspaper and assisted in the recent restoration generation planting at Lord Stirling County Park in Somerset County NJ (see page 6 for more information on the planting). He has joined Mike and Kieu Manes on multiple chestnut education hikes.

Clark is a PA Forest Steward and a NJ Woodland Steward. He serves on the Member Advisory Committee of his local electrical co-op. He is active in the lake association where he lives and just successfully concluded an 18 month effort to get the association to hire a consulting forester.



New PA Chapter Staff, Stephen Hoy

The PA Chapter welcomed aboard a new part-time orchard manager this spring. Stephen Hoy joined us in March and has been busy at work this summer, managing our two summer interns in the care of several orchards in and around Penn State University. His work will continue year-round as he works to maintain and improve orchard upkeep.

Hoy joined the Chapter following a decade long career in wildland forest firefighting, including 5 seasons as a Hotshot Lead Firefighter. He is a Pennsylvania native with a degree in Forest Technology from Penn State Mont Alto.

Right: Hoy leads a tour of the Graves orchard at the 2014 Ag Progress Days.



Forest Farming and The American Chestnut

Rob Lusk

Rob Lusk is a PA Chapter summer intern helping with the orchards here at Penn State. He is a recent graduate of the Penn State Department of Forestry and is currently enrolled in a Masters program with a focus on Agroforestry.

"Forest farming is the intentional cultivation of edible, medicinal or decorative specialty crops beneath native or planted woodlands that are managed for both wood and understory crop production" (Association for Temperate Agroforestry). It is important to realize that this system is intentional which differs from "wildcrafting", where one simply harvests what naturally occurs in the forest. Forest farming is beginning to become more popular in the Northeastern part of the United States specifically with products such as ramps, mushrooms, maple syrup, and ginseng. These products, often referred to as "non-timber forest products" (NTFP) are grown under a hardwood canopy which is also harvested when ready. By practicing forest farming people give themselves another layer of financial security by diversifying their assets. Additionally, these understory products can be harvested on much shorter rotations than your typical hardwood timber stand which can be in an 80 year rotation or longer, adding more income more frequently for the forest farmer.

Forest farming can also involve the production of edible nuts which is where the American chestnut comes in. Even with blight susceptible pure American chestnut, nut production does occur and these nuts can be harvested and consumed or potentially sold for profit. Due to the fact that these trees typically don't grow to more than 30 feet tall the option to have a sparse overstory to harvest timber on longer rotations is still viable. You could also potentially have a harvestable species such as blueberries or mushrooms under the chestnut midstory.

Eventually, when a blight-resistant American chestnut is reintroduced into the woods, chestnut could move from the midstory to the dominant species. Once in the overstory the species could once again produce large quantities of harvestable nuts as well as produce high value timber. In this situation, one could again have harvestable NTFPs, such as those mentioned above, growing in the understory.

Whether you have a small woodlot behind your home or thousands of acres, the benefits of practicing forest farming still exist. In addition to the increased profit and financial stability generated by diversifying assets, other benefits exist as well. The American chestnut has always been and continues to be a terrific wildlife tree. It produces nuts which numerous types of wildlife such as deer, turkey, and bear will happily consume. Furthermore, the blight susceptible American chestnut creates a perpetual early successional habitat with very little management. This early successional habitat is favored by many species such as deer and grouse.

So whether you're a landowner looking to increase the profitability, a hunter looking for a good wildlife tree, or simply a hungry person looking to eat some chestnuts, forest farming can help you.



Figure 1. Chestnut trees interplanted with raspberry bushes on a commercial farm in Michigan.

Everything You Wanted to Know about Chestnut Genomics: Don't Be Afraid to Ask!

For this breeding corner, I want to focus on an upcoming event. On **October 23-25, 2015**, The American Chestnut Foundation will be combining forces with the **Schatz Center for Tree Molecular Gen-**



ics to hold a meeting focused on the molecular genetics of chestnut.

Fagaceae Genomics Web

genomic tools for chestnut, oak, beech, and other trees.
<http://www.fagaceae.org/>

All presentations will be given at the **Penn State Conference Center in University Park, PA**. Scientists from around the world will be presenting work related to various elements of biotechnology including genome sequencing, genetic mapping, and marker-assisted selection techniques, just to name a few.

On Saturday morning, a **panel of biotechnology experts** will be available for an open discussion and **Question and Answer session**. Be sure to bring your genetics-based questions, and don't be afraid to ask. You are also welcome to submit your questions before-hand, where they may be integrated into the formal discussion.

Keynote addresses on Friday and Saturday night will focus on the history of molecular genetics and the genomics of chestnut blight and *Phytophthora cinnamo-*

mi, respectively. The Penn Stater has also agreed to work on **chestnut-based dishes** for dinner on Saturday night.

In addition, attendees will have the opportunity to visit the Schatz Center and learn how to extract DNA during the workshop portion on Saturday afternoon. There will also be a **field trip to the Penn State Arboretum's BC₃F₂ seed orchard** to observe **highly-resistant American chestnuts** from the PA Chapter's breeding program.

In other news...

First Progeny Test in New Jersey

The Chapter had several new plantings installed in the spring of 2014, but one of them stands out because of the time and effort involved in making the planting happen. This planting is at **Lord Stirling Park in Basking Ridge, NJ**, the plans for which date back to 2006.

In 2006, former PA-TACF president and long-time member **Bob Summersgill** planted a test plot of American and Chinese chestnuts at the park to establish site suitability. The trees did wonderfully and today are fruiting. Obviously, the site was sound. Bob and the park's Environmental Events Specialist, **Jane Parks**, then worked tirelessly to



Figure 1. Finalizing planting and documentation of BC₃F₃ progeny test at Lord Stirling Park in Basking Ridge, NJ.

(Continued on page 7)

Fall Meeting Speaker Bios

Speaker photos on page 1

A former PA-TACF Chapter President, **Philip J. Gruszka**, currently advises the Conservancy and the City's Department of Public Works on horticultural and ecological issues facing Pittsburgh's parks. Mr. Gruszka received a Bachelor of Science degree in Forestry from the University of Illinois and has since emerged as a leader in testing historically significant populations of trees and their contemporary replacements for genetic diversity and developing protocols for managing those historic collections. Mr. Gruszka was the leader in developing a tree action plan for the City of Pittsburgh when emerald ash borer and oak wilt disease began to kill thousands of trees within the city. He'll speak with us about how the American chestnut breeding programs have informed efforts to mitigate tree losses.

Dr. Katia Engelhardt is a Research Associate Professor who received her Ph.D. from Utah State University in 2000 and since then has been at the University of Maryland Center for Environmental Science's Appalachian Lab where she is studying the ecological consequences of changes in genetic and species diversity. Over the last two years, Dr. Engelhardt has worked with over 100 citizen scientists in western Maryland who

(Continued from page 6)

establish a BC₃F₃ progeny test on the grounds. The main impediment to progress was getting **funding for fencing**. Several nearby corporations were approached, but preferred to fund activities on their campuses, rather than one on public lands.

Finally, after more than five years and through a **generous private donation** and additional funding from the **Land Conservancy of New Jersey** and **Goldman Sachs**, the planting happened this spring. Over 200 **potentially blight-resistant American chestnuts** from six different BC₃F₂ families were planted, along with several controls of American and Chinese chestnuts. As of this writing, germination was over 80% and many of the trees have already grown over 20" tall.

adopt one or more American chestnuts and report back their growth and survival using Field-Scope, an internet tool developed by National Geographic. Results of the study will determine which sources of trees are better adapted to the western MD climate and should therefore be targeted for breeding the next generation of locally adapted trees.

Dayton Baker is the manager of the International Conservation Center, our host for this years meeting. He holds a bachelor's degree in agriculture from Purdue University and a master's in both wildlife biology and education. He previously worked at the Pittsburgh Zoo, helping establish its conservation research department, before becoming director of the aviary, a position he held for 15 years. He also curated the "Farm in the Zoo" -- a model working farm at the Lincoln Park Zoo in Chicago. Dayton will speak to us about the work of the Conservation Center and will also lead tours of the facility.

Members of the PA-TACF Chapter board will be offering afternoon workshops for volunteers.

More info to come on our website at:

www.patacf.org/fall2014

Selected New 2014 Plantings

Allegheny National Forest - Marienville, PA: BC₃F₃

Anthracite Outdoor Adventure Area (AOAA) -

Coal Township, PA: *Demo, American, BC₃F₃*

Forbes State Forest - Somerset, PA: BC₃F₃

Hercules Cement - Stockertown, PA:

Demonstration

Marquand Park - Princeton, NJ: *Ceremonial*

Milford Experimental Forest - Milford, PA: BC₃F₃



Pennsylvania Chapter
The American Chestnut Foundation
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The Chestnut Tree Newsletter



*Get
Involved
with
PA-TACF!*

Our volunteers enjoy what they do; whether it is leading a tour, planting an orchard, representing us at events or speaking to a group.

We're happy to put your gifts and interests to use. If you are interested in helping out but don't have experience, don't hesitate to contact us. We'll help get you started!

We'll also have volunteer training at our Fall Meeting this year. Check it out!

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