

RHODODENDRON
Species Botanical *G***ARDEN**



Fall Newsletter 2017 Vol. 42, No. 3

Table of Contents

page

1. Executive Director's Report
 2. Featured Plant
 3. The Nursery – Fall 2017
 - 4-5. The Curious Mystery of *Franklinia alatamaha*
 6. RSBG Hazard Tree Assessment
 7. Botanical Illustrations in Progress
 8. Welcome New Members
 9. RSF Board
 10. Donors
-



Ronnie Kylo



Curt Fulgham

Executive Director's Report Steve Hootman

In August we hired Ronnie Kylo as our new gardener to replace Ben Meersman. With a Master's degree in Forestry, Ronnie has a strong and very appropriate educational background as well as experience in botanical gardens. Ronnie grew up in farm country in North Dakota and knows what working outdoors is all about! We are very happy to have him on our team. In addition, we have added Curt Fulgham as our new intern. Curt is helping us both in the garden and in the nursery and is in the process of finishing his horticulture degree at nearby South Seattle College.

Many people probably do not realize the value of the RSBG and its world-class collection to researchers and scientists all around the world. Not only do we work closely with the Ben Hall Lab at the University of Washington, but we also host and supply material for a wide range of scientists and students including many who come from outside of our own country. This past spring we were happy to host Dr. Erik Nilsen for almost three weeks. Dr. Nilsen is a professor of Biology at Virginia Tech where he is currently focused on the genus *Rhododendron* including the study of the evolutionary significance of plant traits, functional significance of leaf structure and interactions between cold tolerance and drought tolerance at the scale of the vascular system among many other things. We were also happy to host Juliana Medeiros once again for a couple of weeks this past spring. Juliana is a scientist at the Holden Arboretum in Ohio who specializes in *Rhododendron* research and has been coming out to the RSBG for the past few years to collect samples. Some of the results of their work will be published in the RSBG Yearbook in the next year or so.

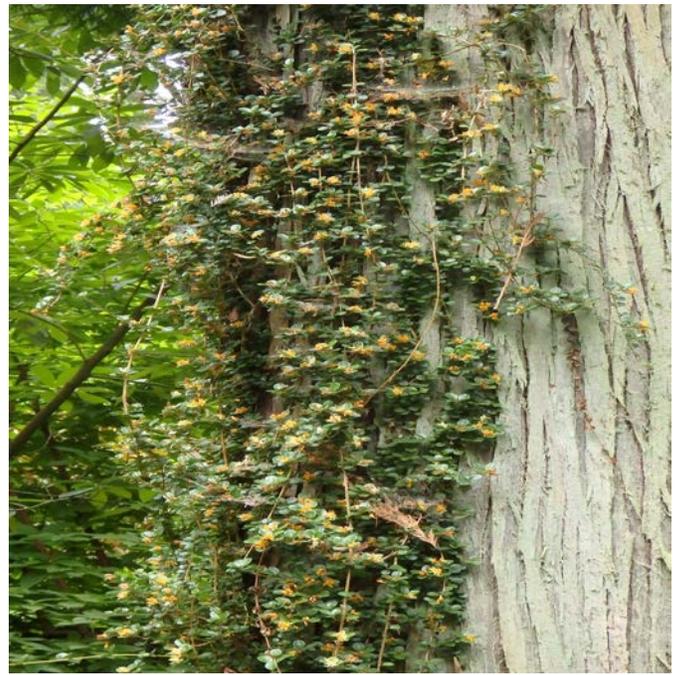
And finally, a quick note to all the rhododendron lovers out there looking for a chance to relocate to the Hawaiian Islands. Long-time RSF member and supporter Pete Adams, owner of White Cloud Nursery on the Big Island, is in the process of selling his 5 acre property including the nursery and all equipment and plant material (vireyas). This is a world-class collection of tropical rhododendrons in a prime location. If you have any interest in details, please contact me here at the garden.



**Featured Plant *Lonicera crassifolia*
Atsuko Gibson**

Lonicera crassifolia is not the typical honeysuckle you might imagine. This is a slow-growing evergreen groundcover that was introduced from the Sino-Himalaya in 1995 by our own Steve Hootman. It will form a beautiful green carpet underneath rhododendrons and other shrub. Its pink flowers will eventually turn golden yellow in early summer, followed by blue-black fruits later in the season. The small, round, glossy leaves are arranged in pairs along the vine. They are attractive year around, and acquire a reddish tone in winter. This plant has been featured in several gardening magazines in the last few years, gaining well-deserved popularity around the world.

Since its first introduction, we have been planting *Lonicera crassifolia* in many places in the Garden. One patch in the big-leaf garden is slowly starting to climb on a cedar tree trunk (as seen in the picture). It is also planted in the stumpery right on a stump and is starting to cascade down the side. It will also grow well in a container or rock garden in sun or partial shade. This non-invasive honeysuckle grows similarly to our native groundcover, *Linnaea borealis* (Twinflower) or *Gaultheria nummularioides*.



***Lonicera crassifolia* on the cedar tree trunk**

Herbarium Workshop: Jan. 27, 2018

Valerie Soza, Ph.D, who gave an excellent presentation at this year's RSF Symposium, will be leading a hands on workshop covering the history, use and preparation of herbarium specimens. This workshop is scheduled for Saturday, January 27, 2018 from 10 am until 2 pm at the RSF office. Attendance will be limited to RSF members. Please contact the office if you would like to register. Registration fee is \$35. More information will be forthcoming.



**Left: Chanelle, our
Office Assistant.**

We are delighted to announce that Chanelle Mikel is now our full time employee! Chanelle has an ever-growing list of skills, and is a real pleasure to have on our team.

The Nursery

Dennis Bottemiller

Sanitation in the nursery has always been important. We clean floors and cooling pads in the greenhouse and always use new medium in both propagation and potting, but for a long time we have been re-using plastic containers and flats without sanitizing them between uses. In the “old days” I had a few volunteers in the nursery who were willing to spend countless hours washing band-pots and flats but these days no one seems too interested in doing that job. Over the past few years I began to suspect that we were seeing increasing failure rates in plants at transition time, mainly the move from seedling and rooted cutting stage into band pots.

Disease inoculum and insect and slug eggs can accumulate in containers over time in bits of plant matter and growing medium that remain in the containers after use. It is very difficult and time consuming to clean pots to eliminate this problem. It had come to my attention some time ago that steam heat was being used by researchers at Washington and Oregon State Universities to sanitize growing medium and containers to prevent the transfer of *Phytophthora ramorum* (Sudden Oak Death or SOD) in research projects they were doing and I had conversations with a couple of them and realized steam might be an effective tool for us here at the RSBG nursery. In a further conversation with Deena Henkins, at that time an active member of our Executive Committee, we decided it was an idea with merit and I should look into it further. Ramona Soule, one of our Monday volunteers and former pot washer, offered to donate half the money to purchase the machine and Deena offered to donate the other half. After quite a long period of research

and trying to find a nursery that used steam in this way (which I never did find) so I could ask advice and effectiveness questions we decided it was worth the expense and purchased a Siebring SG-12 steam generator to be shipped from the manufacturer in Iowa.

Once the generator was on-hand George Lewis, Rollo Adams and Garratt Richardson took the helm in the design and build phase of the project, which turned out to be quite involved. We designed a workstation to load pots and flats into an enclosed and insulated bin and then store the clean pots in an area adjacent to the steam chamber so the work could be accomplished efficiently. Concrete was poured and posts set and exhaust chimney erected (exhaust gas from the generator can exceed 1000 degrees F.) and the resulting project became an elaborate contraption.

Fast forward to October 5, 2017; start up day. George and I began the day by running to the filling station to buy 15 gallons of diesel to power the steam generator and then worked out some details prior to start up and began the procedure. Within minutes we were producing a powerful jet of steam that we attached to the chamber and the whole thing worked as if we had known all along what we were doing! The following day I ran a whole set of pots and flats for 15 minutes of steam time to reach 160 degrees F thus killing all the inoculum in the containers and ensuring clean and healthy plants coming out of propagation.

A big Thank You to all of the volunteers and donors to this project to help ensure that we can continue to offer plants that are pest and disease free!



The Siebring SG-12 Steam Generator

The Curious Mystery of *Franklinia alatamaha*, Curt Fulgham

Perhaps as you've strolled through the Azalea Garden you've noticed a lovely tree or two with fantastic red fall foliage and striking white blossoms at the same time. Perhaps you've pondered over the story of this curious little tree as well. The tree in question is the sole species of the genus *Franklinia* – *Franklinia alatamaha* – named for Benjamin Franklin and the river in Georgia where it was discovered and documented in 1765 by father and son John and William Bartram.

Over the next forty years just a few sightings were reported in that same two- or three- acre grove. And then, it was gone.

From the wild, that is. Fortunately, William successfully planted the tree at his father's garden in Philadelphia. Now all known *Franklinia* plants descend from those planted at the Bartram Garden in 1773, including the two which can be seen in full glory in our Azalea Garden this year.

The reason for the *Franklinia*'s disappearance remains unclear, with some pointing to the introduction of King Cotton and an (cont.)

accompanying pathogen. Interestingly, *Franklinia* now grows much better in the North than the South, which could indicate that pre-Ice Age, *Franklinia* had a more Northern range but the cold climate shrank and isolated the range to the South, where later a warmer climate made life inhospitable for the rather fussy shrub / tree.

Fussy as it is, it looks quite at home among the other natives of the Southeastern United States on display in the Azalea Garden, including *R. atlanticum* and *flammeum* and *Oxydendron arboreum* (Sourwood tree), another monotypic genus with brilliant fall color and showy white flowers. Whatever the reason for its disappearance from the wild, it's fitting to have it on display here at the Rhody Garden where the tradition of preserving beautiful and rare plant species continues. Plus it looks great.



Above: John Bartram by Howard Pyle

Below: *Franklinia alatamaha* in the Garden



RSBG Hazard Tree Assessment

Ronnie Kylo

It is hard to believe I have already been with the RSBG for two months as the new gardener! As Steve was showing me the garden and describing the scope of the work, he pointed out a few of the overstory Douglas-fir extensively covered in thick oozing sap for several feet up the trunk—the hallmark of a tough-to-eradicate “white root rot” fungus called Honey Fungus or *Armillaria*.

The *Armillaria* genus is a curious complex of fungi made up of around a dozen species, and can be found in nearly all parts of the temperate and tropical world, making it be difficult to identify the exact species. What may be of some concern is that *Armillaria* is capable of infecting all but a few genera of woody plants—including rhododendrons! Fortunately, we have not noticed infections in our rhododendrons, yet.

Like many fungi, they produce fruiting structures we know as mushrooms. The mushrooms for honey fungus are aptly named due to the tan and golden mushrooms produced in late summer and fall near the bases of the trees. They produce spores disseminated by wind to nearby tree wounds and stressed trees. However, the primary mode of infection of new trees is through underground structures called rhizomorphs and mycelia. These grow freely in an underground network passing from tree to tree through soil or root graft connections.

For this reason, fungal infections in a forest usually occur in “root rot pockets.”

We have already removed several trees infected with the disease, but unsurprisingly, symptoms have popped up on nearby trees because of the disease cycle. The overstory in our garden is comprised mainly of Douglas fir with a few hemlocks and red cedars. Infections have been noted mostly in the Doug-firs, but some hemlocks have also exhibited symptoms. A quick survey of the grounds has indicated at least 30 trees are infected. But have no fear! Trees may be infected for years or even decades before they meet their demise. That said, there are a hand full of the Douglas-fir that will succumb to the disease very soon. While it is disheartening to see our big trees lost, the danger of these infected and dead trees is that the weakened trees may spontaneously fall, endangering not only our collections, but visitors and staff of the garden. This has prompted us to develop a management plan for the trees.

To assist in development in the plan, I will be attending the International Society of Arborists Tree Risk Assessment Qualification Courses in Seattle November 1-3. This is a two day educational course with a half day exam on the last day. The course will provide me with the credentials to be the first ISA Hazard Tree Assessor on staff for the garden! I am excited for the opportunity to continue learning and to develop the management plan. If we do our work right, you will hardly notice any changes to our beautiful garden.



Above: pruners in sap caused by *Armillaria*



Above: *Agapetes* 'Ludgvan Cross', *Agapetes lacei*, and *Agapetes serpens*

Botanical Illustrations in Progress Pat Whempner

We thought you might like a glimpse of the next drawings in progress. Above you can see Margaret Trent's latest work. The top two drawings are almost finished. The sketch on the bottom will soon be filled in.

In our last issue we discussed the tradition and processes of Botanical Illustration with botanical illustrator, Margaret Trent. Last quarter Margaret was working on *Meconopsis* 'Lingholm'.

Drop by the Visitor Center to see the lovely postcards we made from Margaret's previous Himalayan Blue Poppy Illustrations.



Above: Blue Poppy Postcards, both sides

Update on the Weyerhaeuser Campus Ian Walker, Vice President, RSF

There has been no significant change since the last newsletter. Property owner IRG has indicated that they support the location and mission of both the RSBG and the Pacific Rim Bonsai Museum, feeling that both organizations add value to their overall development project. To this concept, there have been no specifics, so only time will tell. Right now we are in the lower portion of their radar screen.

There has been a lot of activity in the area of public comment and the involvement of various conservation groups and others of interest. There is also the possibility of creating a conservation district as one of the options. The apparent intent of this is to generate strong public opinion to put pressure on various public agencies who need to approve the development. There are quite a number of organizations involved, and we have regular telephone conferences.

Steve and I had a meeting with Forterra recently for an update from their perspective. At this point it is more of a waiting game and being aware of which way the "wind is blowing".

The Save the Weyerhaeuser Campus website is a good source of information.

Welcome New 2017 Members

Peggy Agress
Catherine Allan
Cindy Amato
Cate & Joe Anderson
Maria Andrijeski
Robert & Shannon Anthony
Adele Armstrong
Shirley Baker
Andrew Balaschak
Ruth Marie & Jared Ballance
Bob & Erin Banasik
Brian Bedsworth
Patricia Bell
Jane & Albert Bender
Robin Bentley
Ted Bogart
Jacelyn Boschok
Nancee Braddock
Heather Bradley
Jean Bragassa
Brandon Brewer
Judine Brooks
Verna Buhler
Ronald & Barbara Burch
Vicki Burgess
Charlene Burley
Marilyn Cadavid
Catherine Cameron
Sharolyn Canady
Alex Candalla
Valerie & Gregory Carnese
Rich Carrasco
Joe & Shannon Castro
Chi-Ling Chao
Carol Chehrengosha
Heesun Choi
Henning Christensen
Jae Doo Chung
Ngoc Chuong
Tom & Ann Church
Megan Cooper
Mark Cornwell
Michelle Cranney
David & Theresa Crock
Glen Cross
Becky Crowell
Susan Curtis
Charles Davidshofer
Evenstar Deane
Mary DeNoyer
Joe & Julie Donaldson
Jean Donati
Christopher Dreyfus

Neeley Durkee
Erin Dwyer
Carol Eckert
Penguin & Carrie Ellis
Emily Ennis
Gerry Esterbrook
Chris Fallacara
Mike Farndale
Anthony Felix
C W Ferguson
Cindy Flanagan
Heather Floyd
Friends of Abkhazi Garden
Shiyu Gao
Kirk & Claudine Gibbs
Nancy Gibson
Aaron & Jaime Gilbert
Tobey Gloss
Kellie Glover
Brian Gourley
Kim Greenheck
Joy Guinivere
Damon Gulick
Suzannah Gusukuma
Julia Guzman
Suzi Hammond
Julie Ann Harris
Ryan Heflen
William Heller
Albert Hendley, Jr.
Susan Hernday
Alfredo & Neva Herrera
Matthew Hickman
Cody Hinchliff
Sarah Hinckley
Julie Hinshaw
Angela Hockley
Christopher & Margaret Hodgson
Donald Howe
Hsiangwen Hu
Ashley Hyde
Chad Inks
Jenna Jacek
Young Min Jeon
Hui Jin
Laura Joe
Steve Johnson
Donald Jones
Raymond Kato
Jeff & Mary Keller
Marilyn & Bob Kellogg
John Kempf
Paula Kierkegaard
Margie Kinoshita
Charlotte & Jim Kochanek
Adrienne Koehnen
Heather Kohl

Alice Krause
Midori Kunitsugu
Young Kwon
David LaCount
Vickie & Barry Lafrerriere
Amanda Landry
Josh & Cameron Larios
Catharine LaRiviere
Janyce Lauhon-Horton
Kathy & Bob Leber
Sherrie Lee
Owen & Jessica Leiser
Steven Linden
Victoria Lord
Alicen Lum
Aaron Lund
Jeanne Lunde
Rich Lupfer
Liticia Mann
Anna Jane Marlar
Jen Martinez
Will & Maria Mason
Tony & Norma McCammon
Jackie McDowell
Jesika McEvoy
Renee McGuire
Kevin McIntosh
Lisa McPeak
Valorie Medcalf
Ben Meersman
Roxanne Merket
Penny Merriman
Daniel & Sheila Miranda
Kevin & Karen Moan
Colleen Mold
Charlotte Morris
Beth Nakatsu
Swathi Nakkana
Mark Nelson
Jim Newport
Tammy Ng
Lynne & Harry Nicholas
Alex Nickerson
Erik & Karen Nilsen
Elizabeth Odsen
Sara & Erik Olson
Gabriel Ortega
Tracy Oster
Rachel Ostheller
Courtney Ostrem
Jean Parietti
Steven Parker
Carl Benton Paul
Michelle Perkins
Rita Perry
Patricia Perry
Bill & Deborah Phare

(new members continued)

Donna Pierson
Debra Prinzing
Karen Protti
Patricia Pugnetti
Christine Quibuyen
Sally Raftery
Beth Ramage
Calen Randall
Rizanino Reyes
Denise Reynolds
Eve Rickenbaker
Gyne Riser
Rob Rotermund
Nicola & Bobby Rubalcaba
Omar Rubi
John Rush
Ruslana Sabbagh
Ben & Kim Sabelhaus
Sam Sacharoff
Annie Saephanh
Barbara Sands
Donya Saunders
Jason Schepers
Lois Schley
Mary Schneider
Robert Seddon
Eric Shalit
Andrew Sherman
Rob & Terry Shovlowsky
Gurpreet Singh
Lynn Sires
Gail Sklar
Lois Smith
Valerie Soza
Craig & Sue Spencer
Coral Staley-Hall
Eric Stegner
Nicole Steinert
Kam Stewart
Virginia Stockton
Gabriele Storck
Richard Street
Kathleen Sullivan
Sally Sullivan-Hall
Johnny Svensson
Beverly Swanson
Janet Sweet
Katie Swickard
Nicholas Sykes
Louis & Aimee Szabo
Denise Tatom
G. Robert & Angela Taylor
Jasmine Tejeda
The Portland Garden Club
Raoul Titus
Honorio Todino

Deanna Toloudis
Lawrus Traas
Ken Tuami
James Tucker
Nadine Van Overbeke
Kim Veilleux
Sangeeta Vishwa
Kathe Watanabe
Curt Webb
Pam Weimer
Kaye A Wiebrand
Brendan Wilce
Kathleen Williams
Kelly Wilson
Angela Wingrove
William Winslow
Timothy Wolfenden
Sherrie Workman
John Wott
Karen Wylie
Xiaohui Xi
Hong Xu
Shirlee Yeager
Linda Zarapkar
Yanni Zhang
Xiadi Zhang
Kim Zier

RSF Board 2017

Executive Committee

President: Sean Rafferty
1st Vice President: Ian Walker
2nd Vice President: Joshua Green, III
Treasurer: Bob Gust
Secretary: Garth Wedemire

Members at Large:

Anne Gross
Jean Muir
Chip Muller
Immediate Past President:
Mike Stewart

Board of Directors

Rollo Adams
Chris Brickell
Al Campbell
David Chamberlain
Charles Sale & Margaret Charlton
Ken Cox
Susan Davies
Harold Greer
Benjamin D. Hall

(Board of Directors Continued)

Henry R. Helm
Don Hyatt
Donald E. King
Douglas Justice
William Lindeman
Bob Mast
Peter Norris
Garratt Richardson
Martha Robbins
Hartwig Schepker
Elaine Sedlack
Don Smart
Jeanine Smith
Joe Ronsley
Paul Thompson
Diane Thompson
Tim Walsh
Keith White
Martin Wilkie

Board of Directors (Honorary)

Peter Cox
Honore Hacanson
Patricia McDowell
June Sinclair
Herbert Spady, M.D.
Philippe de Spoelberch
George Weyerhaeuser

General Contributions June - September 2017

AmazonSmile Foundation
ARS Willamette Chapter
Brooks, Walt
Bunce, Michael
Butdorf, Steve
Costakis, Vicky
Dunstan, Dorothy
Hansen, Debra
Kast, Barry
Kellerman, Carole
Miller, Grace
PSE, The Benevity Community Impact
Fund
Short, David
Stewart, Michael and Maria
Watne, Conrad
Wegener, Charles and Deann
Wells, Ned
Zech, Marcia and Klaus

Give Big Donors

Paulsen, Camille
Mischo, Iare
Groendyke, Mollie
Scheff, Michelle
Selcer, Donald
Rusch, Michael
Tenneson, Edith
Husch, David
Muller, Charles
Walker, Suzanne
Clark, Clarice
Adams, Winnifred
Randolph, Steven
Moloney, Mona
Helm, Henry R
Gross, Kenneth W
Caretti, Marcia
Smith, Jeanine
Cavender, Richard
Preble, Rosalie
Gross, Anne
Mauritz, Sara
Lintault, Katherine
Wolfe, Cynthia Lowe
Adams, Daniel
Laidlaw, Kurt
Hunter, Freelon
Adams, Peter
Spiker, Cathy
Machulak, Ramona
Shadbolt, Stephanie
Olsen, Suzanne
Clark, Susan B.
Sheaffer, Chuck
Lignana, Mary
Soderstrom, Margret
McNamara, Nina
Smart, Donald
Willham, Bruce and Jennifer
Parker, John W. Parker
Feagin, Jean
Daneri, Deanna
Anderson, Paul
Wott, John A
Okamoto, Niko

Extraordinary Gifts

Estate of Larus, Charles

Intern Program

Miller Foundation
ARS Greater Philadelphia

Property Funding Drive

Puget S. Daylily Club

Spring Garden Campaign

Buhler, Joan
Cale, Edward and Carolyn
Chapen, Carol F.
Cummins, Patrick J. or Jean L.
Flavell, Richard A.
Gehnrich, Herman
Gwynne, John
Halsey, Donald R.
Hasche-Kluender, Hans
Hatch, Reuben
Henkins, Deena J.
Kang, J. H. John
Krebs, Stephen L.
Mangels, William & Ann
Meyer, Nancy
Morel, David R.
Nelson, Margaret & Allen
Sale, Charles
Soule, Ramona
Velinty, A. Jennifer
Watne, Conrad
White, Dr. Keith A.
Wright, Jonathan and Holly

It's not too late!

Please send in your

*Fall
Contribution
Pledge Form*

or if you prefer:

Go to the top right of our
web page:

rhodygarden.org
& hit the little blue

"Donate" sign. Please mention
"Fall Pledge"

Thank You!