



conifer

AMERICAN CONIFER SOCIETY | CONIFERQUARTERLY | Volume 39, Number 1/WINTER 2022

Winter 2022 Volume 39, Number 1

CONIFERQUARTERLY (ISSN 8755-0490) is published quarterly by the American Conifer Society. The Society is a non-profit organization incorporated under the laws of the Commonwealth of Pennsylvania and is tax exempt under section 501(c)3 of the Internal Revenue Service Code.

You are invited to join our Society. Please address membership and other inquiries to: the American Conifer Society National Office, 8441 Wayzata Blvd., Suite 270, Golden Valley, MN 55426, nationaloffice@conifersociety.org, or join on our website at conifersociety.org. Membership: US & Canada \$40, International \$60 (indiv.), \$40 (non-profit), \$75 (sustaining), \$100 (corporate business) and \$150 (patron), \$108 (three year individual).

If you are moving, please notify the National Office 4 weeks in advance.

All editorial and advertising matters should be sent to: Ron Elardo, 5749 Hunter Ct., Adrian, MI 49221-2471, or email theconifercollective@gmail.com

Copyright © 2022, American Conifer Society. All rights reserved. No material contained herein may be reproduced in any form without prior written permission of the publisher. Opinions expressed by authors and advertisers are not necessarily those of the Society.

Note: Hardiness Zone references in **CONIFERQUARTERLY** are USDA classifications unless otherwise specified.

CONIFER QUARTERLY

Editor

Dr. Ronald J. Elardo

CQ Committee

Deb Guardia, Chair
Sandy Horn
Ethan Johnson

Cover Photo

Tsuga mertensiana 'Blue Star' (center),
Roseburg, OR.
Photo by Jack Ayers.

Inside Cover Photo

Pinus banksiana 'Uncle Fogy' cone,
Adrian, MI.
Photo by Ken Hundrieser.

Back Cover Photo

Pinus mugo (Boyko sport),
Coenosium Gardens, Eatonville, WA.
Photo by Bob Fincham.

Design and Layout

Chester Hundrieser
behance.net/chundrieserdesigner

TABLE OF CONTENTS

- 4 ACS President's Message**
Jeff Harvey
- 5 Address to the Membership**
Jeff Harvey and the ACS Board of Directors
- 7 *Tsuga mertensiana* 'Blue Star'**
Jack Ayers
- 8 *Pinus contorta* 'Trautmann's Beehive'**
Chris Trautmann
- 9 Given Up For Dead**
Ron Elardo
- 12 Drip Irrigation**
Sandy Horn
- 16 2021 Harper Award**
Sandy Horn, Scott Antrim, and Tom Cox
- 18 2022 National Conference, Philadelphia**
Judy Snow
- 22 2022 Dayton Conifer College and Central Region Conference**
Dennis Groh, Bob liames, and David Speth
- 26 ASC Research Grant Update**
Clayton Hale
- 27 Conifer Gardening on a Small Scale**
Richard Niemi
- 32 2021 Research Grant Recipient**
Vidya Vuruputoor
- 33 2021 Snyder Award**
Jeff Harvey

ACS President's Message Winter 2022

Text Jeff Harvey

It was late November when I wrote this message. Jennifer and I had been able to attend the Central Region's Fall Color Rendezvous on October 30 and 31 in Michigan, near Detroit and Ann Arbor. It was a great opportunity to get together with a lot of people who enjoy conifers and beautiful gardens.

We were also able to visit Gary and Kaye Gee at Gee Farms in Stockbridge, MI, the Friday before the rendezvous. We had not had a chance to get back there since the 2012 National Conference. Gary and family were once again very hospitable and gracious hosts! It was raining a bit, and Gary, before going out to work, took us on a 4-wheel drive tour of the farm and the arboretum, in the mud. The night before, it rained almost two inches. Without that ride, I am pretty sure we would not have seen much of anything past the greenhouses that lie next to the road. Thank you again, Gary!

Over the next two days, we visited 10 gardens with our friend George Riehle, an ACS member from Webster, NY! We met up with a group of coneheads for lunch and dinner and had just a great time. We were even able to get in a quick trip to Hidden Lake Gardens, an arboretum and botanical garden operated by Michigan State University in Tipton, MI, to see The Harper Collection of Dwarf and Rare Conifers. It has grown so much in the last 10 years and is even more impressive than it was the first time we saw it.

Taking part in these trips and meeting others is what the Society is all about! No way would we have ever known about all these people and places if not for the American Conifer Society. The Society is not about just one or two people but about the group as a whole. Working together and taking the time to help new people get involved is how the Society will grow. We all need to step up and get involved.

So how can you help? What about having a garden party with other Society members in your area? No need for buses or food, even though food helps! Have a list of gardens to visit, or just open your own garden for fellow conifer lovers. With all the different map apps out there, all you need to do is list addresses, then pick a date and time, and people will come. You can even get the list of

members in your area from the Membership Directory on our website. Email them and see if any of them will open their gardens to visitors. I encourage you to help us grow the Society by taking an active role. Spread the word about the events, trees, and gardens you love with others. They'll thank you, and so will the ACS!

Jeff Harvey
ACS President



Photo by Jennifer Harvey in their yard in Watertown, TN. Jeff is standing inside *Pinus densiflora* 'Gold Ghost'.

Address to the Membership

Text Jeff Harvey and the ACS Board of Directors

I am pleased to share the news that the ACS Board recently hired a professional association management company, Forius Association Management Services. The company was chosen following extensive work by a special committee to identify and vet potential candidates. I am very confident that this will put the ACS in a better place to continue as a great organization, as well as grow a strong, active membership. Forius AMS's work will also free up much-needed time for our officers to plan events and new activities.

The Board realized that our Society has reached a size and complexity that requires a depth of organization and office management that is greater than one officer or one employee can accomplish. Hiring Forius AMS ensures the continuity and redundancy needed to keep the organization running smoothly in the future. This professional relationship will also ensure greater effectiveness and transparency through monthly activity and financial reports, meeting assistance, conference planning, email blasts, standardized procedures, and improved member involvement.

Steven Courtney has served our organization well in the role of Office Manager for the past eight years and he will assist the ACS in transitioning the management activities to Forius AMS in the next few weeks.

We look forward to introducing Leslie Thomas as our new point person, along with the team that will be assisting our organization. They are quite excited to be working with us. Please provide a warm welcome to our new partners and help with the transition process as needed.

This is an exciting new chapter for our organization. The decision to professionalize our National Office's services and thus expand its capabilities was made to allow our members in all roles to enjoy better what we love: conifers.

Please reach out to me if you have any questions.

Thank you,
Jeff Harvey
ACS President

The American Conifer Society/Forius AMS Agreement Announcement January 2022

The American Conifer Society Retains Forius Association Management Services

MINNEAPOLIS - January 10, 2022— The American Conifer Society (ACS) today announced that, following an exhaustive evaluation process and review of several qualified companies, it has selected Forius Association Management Services to provide strategic association management support services, beginning on February 15, 2022.

ACS's selection of Forius AMS to provide management services reflects the organization's continuing commitment to promote the use of conifers and provide education about their care and conservation. Forius AMS will provide ACS with association expertise and day-to-day management that allows volunteers to focus on strategy and thoughtful leadership.

"Forius AMS is excited to use our extensive association management knowledge and experience to help ACS continue growing as an organization and its mission of promoting and advocating for the use, education and conservation of conifers," said Toni Nuernberg, President and COO of Forius AMS.

"The American Conifer Society's relationship with Forius AMS will provide us with new opportunities to encourage the use of conifers and advocate for the joy and beauty they provide around the world," said ACS President Jeff Harvey.

About ACS

The American Conifer Society (ACS) was founded in 1983 and is a 501(c)(3) organization whose purpose is to promote the use of conifers in the garden and landscape and to educate the public about their care and conservation. The society's mission is to promote the development, propagation and conservation of conifers, encourage the appreciation and use of conifers in the landscape, educate the public and

professionals about conifers and spread joy, knowledge and diversity of conifers around the world. Learn more at conifersociety.org.

About Forius AMS

A subsidiary of the National Association of Credit Management's North Central region, Forius AMS offers trusted management solutions for associations. Forius AMS managed associations span a variety of industries, including credit management, unclaimed property, shareholder services and passive optical LAN.

Leslie Thomas will be ACS's new executive director. ACS's new address will be 8441 Wayzata Blvd., Suite 270, Golden Valley, MN 55426 and new phone number is (763) 253-4311.

The Jean Iseli Memorial Award

The American Conifer Society annually awards a \$4,000 grant to a public garden, arboretum, or horticultural institution that emphasizes the development, conservation, and propagation of conifers, with an emphasis on dwarf or unusual varieties.

Jean Iseli was an ACS founder and conifer propagator. This award was established in 1986 in his name.

Iseli Nursery pledges to grant the winner a 50% discount on any plants purchased in conjunction with this award, up to \$8,000.

Proposals must include:

- **Name, address, and phone number of the applicant/institution**
- **Brief description of the plans to utilize the funds**
- **List of conifers to purchase**
- **Budget**
- **Short overview of the mission statement or horticultural background of your institution**

Send applications by email to ethjohnson42@gmail.com, or by USPS to:

Ethan Johnson
39005 Arcadia Circle
Willoughby, OH 44094

Deadline for submissions is March 19, 2022. The Iseli Award committee will announce the winner in April, 2022.

Tsuga mertensiana 'Blue Star'

Text and Photography Jack Ayers



Tsuga mertensiana 'Blue Star',
front and center in the photograph.

Pinus mugo 'Tyrol',
immediately left of 'Blue Star'.

Picea glauca 'Sander's Fastigiata',
left of 'Tyrol'. Upper part of the plant is a
reversion.

Abies cephalonica 'Meyer's Dwarf',
above 'Sander's Fastigiata'.

Juniperus scopulorum 'Sparkling Rocket',
up and right of 'Meyer's Dwarf'.

Picea abies 'Pyramidalis',
in front of 'Sparkling Rocket'.

Nandina domestica,
right of 'Blue Star'.

Picea omorika 'Pendula Bruns',
behind *Nandina*.

Acer palmatum 'Orangeola',
left of '*Thuja occidentalis* 'DeGroot's
Spire', 'Orangeola' is normally a mound
but here was trained up a steel rod.

Thuja occidentalis 'DeGroot's Spire',
right of 'Orangeola' and behind *Sequoia
sempervirens* 'Albospica'.

Chamaecyparis obtusa 'Meroke Twin',
yellow plant to the right of 'Blue Star'.

My favorite conifer is *Tsuga mertensiana* 'Blue Star' (Blue Star mountain hemlock), a plant I fell in love with in 1982 at the Pinetum de Dennenhorst, The Netherlands, while visiting conifer gardens on a tour led by Bob Fincham. The specimen there was a moderately broad conifer, about 20 feet tall, of a gorgeous, blue color. I was able to get a start of it from Stanley and Sons in 2001. My plant is now seven feet three inches tall, after a slow start, and is currently growing about eight inches per year.

Listings of 'Blue Star' in nursery catalogs describe it as a narrow conifer, and pictures of it on the web are like those descriptions, much narrower than the plant at Dennenhorst. I prefer the broader shape, as mine

is now. If mine starts to shoot up, I plan to clip the leader periodically.

Tsuga mertensiana is a cool-weather plant, first described by Karl Heinrich Mertens, a German naturalist on a Russian ship exploring the coast of Russian America. He likely discovered *Tsuga mertensiana* on the coast of present day southern Alaska or British Columbia, where it grows near sea level. Further south, it grows at higher elevations (4,500 to 8,000 feet in Roseburg, OR, USDA Zone 8, where I live). Here, at low elevations, the summers can be relatively hot, so I always maintain substantial mulch around it to keep the roots cool and water it with drip irrigation to keep the needles dry.

Pinus contorta 'Trautmann's Beehive'

Text and Photography Chris Trautmann

Look what Chris Trautmann found in his neighborhood in Florence, OR (USDA Zone 9a). Love those witch's brooms!

Pictured here are the witch's broom and the named cultivar, 'Trautmann's Beehive' (in a container), four years after grafting. For more of Chris' favorite conifers, see pp. 17 - 20, Fall 2021 **CONIFERQUARTERLY**, Vol. 38, No. 4.

Do you have any photos of witch's brooms you would like to share? Please include the botanical name of the parent tree, where you found it, the USDA Zone number, and whether the broom has been cultivated.



The propagated witch's broom.



The witch's broom.



The witch's broom growing on the parent plant.

Given Up For Dead

Text and Photography Ron Elardo



The rescued *Cupressus nootkatensis*, the showstopper.

It is a fact well-known to my neighbors and friends that I am a plant-rescuer. I regularly check out conifers at Lowe's and Barrett's Nursery and Landscaping, here in Adrian, MI (USDA Zone 6a), that are slated for disposal. There are several rescues at my home, two being pictured here: *Picea omorika* 'Bruns' (Bruns Serbian spruce) and *Picea pungens* (unknown cultivar of Colorado spruce). It's their shapes that attracted me.

'Bruns' and the Colorado spruce were just tufts of growth on the top of very sturdy trunks. They looked like "flowers on a stick", a phrase that Steve Courtney coined. Clearly, those two trees were remnants of much fuller branching, but the lower branches died off after the trees had been neglected. Since its initial planting, 'Bruns' has turned into a very pretty tree, growing swooping branches with lovely color, which is so typical of the cultivar.

The Colorado spruce is still evolving, putting out new, powder-blue growth on several branch tips since its installation in spring 2020. Both trees were in containers at Barrett's and were passed over because of their appearance, as Elden Wheaton, Nursery Manager, explained. Elden initially rescued the two trees, up-potted them, cared for them, and then called on me to adopt them. Both times, he began his phone call with, "Ron, I've got a tree that you might be interested in." He and I like those funky shapes. He, too, likes to rescue plants. This short story is about one such rescue that was likely doomed to becoming mulch.

The Nootka cypress, with no plant tag and of an indeterminate cultivar, was a mere seven feet tall, if that, when I first saw it in May 2008, in the back of



Picea omorika 'Bruns' after living a few years at my home.

the nursery, where plants go to die. It was pale, sad, and obviously needing a lot of TLC. I like Nootkas because of their soft, lacy foliage, and the way their branches droop, revealing their colors. I also love their scent. We have two others at our home, one a 20-footer, the other one much smaller but nonetheless very pretty. There was something about this orphan that told me it could be resurrected, or, at least, it was worthy of the attempt.

I put the tree in my cart, along with my other purchases, and sought out someone who could tell me if the orphan cost anything. I came across John Barrett, the owner of Barrett's. I held up the tree and asked: "How much?" He said: "Ten bucks. And don't bring it back when it dies!" I paid for my plants and took home what I dubbed "Nootka Number 3".

I planted Number 3 in late spring, out in the open, in my clay soil, facing southwest, partially shaded by a corkscrew willow (*Salix matsudana* 'Tortuosa'). I watered it every three days, unless it rained at least an inch per week. I counted slowly to 100 hose-time, as Steve Courtney had taught me to do long ago. I

fed it Osmocote™ and pampered it. Within a couple of months, its color became deep green with a light-green cast.

The branches began to spread and strengthen during that summer and autumn. I sprayed Nootka Number 3 with Plantskydd® as winter approached, in order to keep deer and vermin off it. I walked out to it repeatedly that winter, held its foliage in my hands, pressed the foliage to my nose, and spoke to it, as I do with all my conifers in winter. It was a very cold winter. Polar vortex after polar vortex blew down upon my conifers, seemingly relentlessly. Two mature *Pinus densiflora* 'Golden Ghost' burned to a crisp that winter and had to be removed. I also lost a mature *Fagus sylvatica* 'Red Obelisk' (Red Obelisk European beech), that leafed out and then dropped all its leaves. Its vascular system had been frozen, leaving only black fungus veins under the cambium layer, when the spring thaw came. Nootka Number 3 darkened in color



Picea pungens, newly growing at my home.



A young *Cupressus nootkatensis*.



My oldest *Cupressus nootkatensis*.



Nootka foliage on the rescued tree.

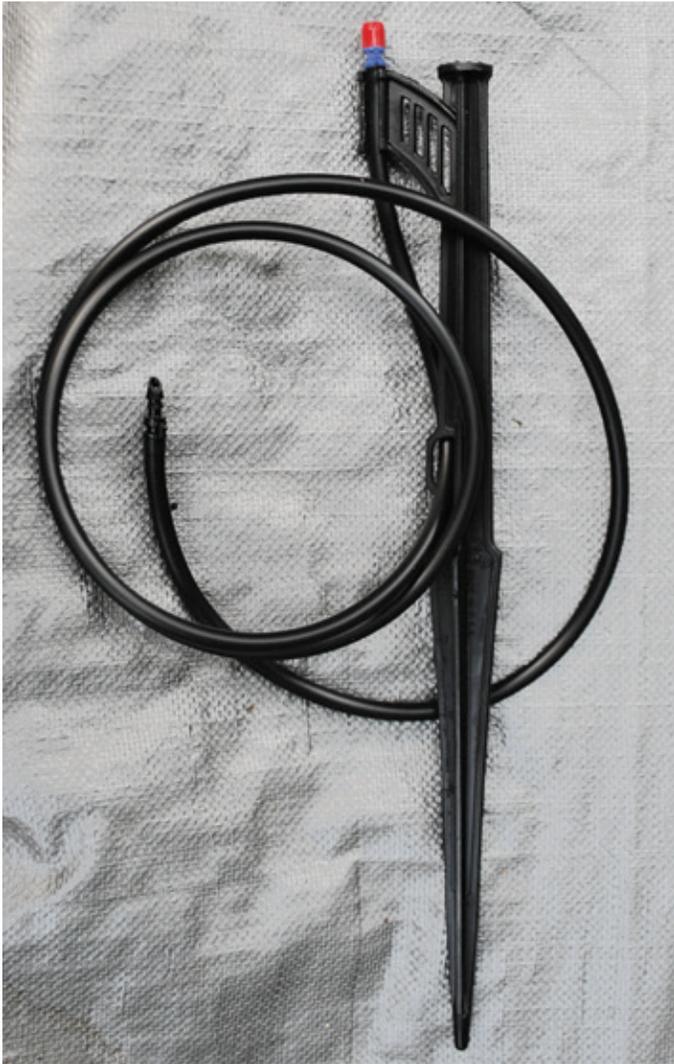
like my other Nootkas, but I sensed that it'd be back. Then came spring 2009.

Nootka Number 3 grew bigger and more colorful that spring and it kept on growing. It is now well over 15 feet tall with a 10-foot spread. As you can see in the photo, the tree is extremely healthy. I had the willow removed this summer, leaving the Nootka standing alone in full-sun. The southwest winds undulate its branches. Birds perch in it. I showed a picture of my rescue to John Barrett and asked: "Any more throwaways?" He directed me to a pile of cast-offs at the back of the nursery, where I had found my rescue. I wonder which one(s) will find a new home in my garden.

If any of you have a similar story, I'd love to hear it. Send your story to me at ConQuartEditor@gmail.com with a couple of photos (1MB/300 dpi or larger).

Drip Irrigation

Text and Photography Sandy Horn, Southeast Region Director and Editor



An assembled emitter: stake, tubing, sprinkler head, and barb.

Several years ago, I was grumbling in an email with Barbie Colvin, who lives in Georgia, about the hot summer and how much time it took me to water my gardens, dragging hoses around to hand water, or positioning oscillating sprinklers and moving them here and there, while attempting not to get soaked myself. She suggested drip irrigation and sent me some basic instructions.

Since then, I've strung sprinklers throughout my gardens. Drip irrigation is a low-tech, relatively inexpensive, low-maintenance solution to hours of hand watering. It works pretty well for me, so I thought I'd pass enough information along to get you started, in case you'd like to give it a try.

Some people equate drip irrigation with soaker hoses, but that's not what we're talking about, here. Soaker hoses are wonderful for small areas, but I've got a lot of room to cover, so I went for micro sprinklers. If you think this might be a good fit for your garden, too, you don't have to make a huge commitment, to begin with. It's something you can try out on a small scale and expand, if you decide you like it. First, a few caveats:

1. If seeing little sprinklers on stalks offends your aesthetic sense, drip irrigation is not for you. You can cover the pipes and tubing with mulch, but the stakes will always be there.
2. All hoses, tubing, and fittings are not the same. Outside of quality differences, they do not all fit together. While logic would tell you that a 1/2-inch fitting should work with a 1/2-inch, thin-plastic pipe (hose), that's not necessarily true. It all depends on the inside diameter (ID) of the pipe and whether the fitting was made for that dimension. Be sure to take note and then stick with one inside dimension.
3. You can buy drip irrigation parts at your local big box hardware store, but doing so will cost you more than if you order online, *especially* the small parts (sprinkler heads, stakes, 1/4-inch barbs). There are many suppliers, but I've had good luck with thedripstore.com or dripirrigation.com, which are the same company. They're quite specific in their description about the interior dimension of pipe and tubing and what each fitting needs.

Pieces and Parts

The backbone of your project is the 1/2-inch, flexible rubber hose, called "pipe". This is an item I buy from the drip store only if I'm trying to make a price point for free shipping because it costs a lot to ship. I normally use DIG pipe and tubing, and Home Depot will order it for you if they don't have it in stock, and you can pick it up at the Home Depot near you. They have a lot of DIG products, so you can also get your tubing there. The ID (interior dimension) will be on the label.

You will also need lots of 1/4-inch tubing. This is what connects your emitters to the backbone.



.5-inch tubing.



Label with interior dimensions for .25-inch tubing.



Small parts.

Then there are lots of fiddly bits. The photo shows the remaining parts you'll use most often. The stake and the knife are pretty self-explanatory, as to function. The 1/4-inch tubing goes through the little loop on the stake and through the hollow cylinder that protrudes from the shaft. The sprinkler head screws into the tubing and sits securely in the cylinder. There's a nice flat area at the top of the stake, in case you want to pound the stake in with a rubber hammer. I buy smaller stakes, too, for use in things like containers.



.5-inch fitting tool.

At the other end of the tubing, one end of which is now secured in the stake, you'll insert a barb that will be used to plug the tubing into the pipe. "Insert" is a nice word for this procedure. It's not always easy. Or ever. You'll notice that the two barbs shown are slightly different. One must be pushed into the 1/4-inch hose and the other can be screwed into it. Guess which one I prefer. The other end of the "push" barb, which goes into the 1/2-inch pipe is flat, whereas the pipe end of the "screw" barb is pointy. In my humble opinion, that's two points for the screw barb and zero for the push barb. You decide.

The blue tool is just one of several you can buy to assist you in constructing your drip irrigation system. *You need such a tool.* Whichever you pick, it will have a pointy thing and a cradle to hold the 1/2-inch pipe. This is to make a hole in the pipe, into which you will insert the barb at the end of your tubing.

There are two kinds of fittings for joining 1/2-inch pipe together. Both compression and push-on fittings come in multiple configurations. The compression fittings are much easier to use, but, of course, they're more expensive. Both types work equally well. In either case, when joining 1/2-inch pipe, it's best to heat the pipe in hot water first to make it more pliable. There's also another little plastic tool, especially for helping you with 1/2-inch fittings. In addition to helping push the fitting, there are little wings on the side to push into the pipe once it's warm enough to stretch it a little until it cools.

Other Things You'll Need

Well, sprinklers/misters, of course, and there are worlds of those. It's hard to offer advice, here. Barbie swears

by 6-gallon-an-hour misters (MS007, at The Drip Store), but I use mostly sprayers. I found that if there's wind, sprayers are more likely to put the water where I intend it to go, whereas misters deliver such fine droplets that they're likely to go astray. It all depends on your garden. Regardless, sprayers/misters are available to spray in a circle or in any part of it—90 degrees, 180 degrees, and so forth. Things to consider are how you want to arrange your system to reach all your plants and what your plants need. You may have some plants that don't want much water and others that want lots. You can individualize your system to meet the needs of all of them.

Timers can control your system. I use three Melnor four-hose timers. Timers can be set to be wholly automated, in order to run on a schedule; partially automated so you can kick it off when you decide; or you can water "manually", i.e., set a timer on the spur of the moment to water one run of pipe for x number of minutes.

A pressure reducer is sometimes needed, since these systems need only 20-25 pounds of water pressure to run properly. These usually come with a filter, too. Even a little screen will work.

You will definitely need a connector to attach the pipe to your water supply/timer. There are some pressure reducers that will serve both purposes.

A Couple of Installation Hints

This may sound overwhelming, but it really isn't. Just assemble your parts, and the rest can be taken as slowly or quickly as you like. Some people will do a whole garden in a day, while some will do a little at a time. Almost everyone will make adjustments as they expand planting beds or add new plants. You can make up sprinkler assemblies while you watch TV and just attach them as you see fit. The sprinkler assembly you see here took less than a minute to assemble.

Now we've established how easy it is, following these hints will make installation go ever so much more smoothly and forestall a few do-overs:

1. Make sure that both ends of your pipe are closed off if you've left it outside before you connect it to the water source and start setting up the emitters. Bugs, dirt, mulch, and who knows what else could easily end up in your pipes, if the



Tool box with drip irrigation parts.

ends of the pipes are left open. If you look at that tubing and then the tiny, little holes that emit the water, you can imagine how easy it would be for even a small amount of debris to block them up.

Now, it's easy enough to fix clogged emitters. You can clean them or replace them in seconds, but you can save yourself the trouble by connecting the pipe to the water source while leaving the far end open before you add the sprinklers. Let the water rush through the pipe for a minute or so to wash out any small particles or insects. Then, you just close off the end of the line with a figure 8 clamp or an on/off valve, and you're good to go. Nothing can get inside, and you can take your time adding sprinklers.

2. Don't make the mistake of building all your sprinkler/mister assemblies in advance, only to find out you've cut the 1/4-inch tubing too short. Head out to the garden with some stakes, tubing, and a measuring tape. Once you get an idea of the lengths you'll need, you can make a bunch at the same time and only assemble custom lengths, when needed.

3. Finally, at the end of the season, just open the ends of the runs and let the water drain before closing them up again. It's not a watertight system, so you don't need to worry about it bursting. Unhook the hoses and enclose the ends in a waterproof bag, take the timers inside, and fall maintenance is done.

4. In the spring, hook up the timers and hoses; run water through the pipes with the ends open; close 'em up; and you're ready to go. Get your parts box ready to make any small repairs that are needed, turn on the water, and wander out to make sure all of your plants are being watered. If not, add an assembly or two.

That's it! You are now a gentleman or lady of leisure. Well, except for the weeds; the planting; the pruning; the mulching; and so on, *ad infinitum*, of course. Happy Gardening!

Editor's Note: This article first appeared in the *Southeastern Conifer Quarterly*, September 2021, pp. 3 - 6.



Rhododendron occidentale

You are cordially invited to join the
American Rhododendron Society
Benefits: quarterly journal,
seed exchange, chapter affiliation,
conventions

ARS Website: <http://www.rhododendron.org>

2021 Harper Award

Bruce Appeldoorn is the recipient of the 2021 ACS Justin C. "Chub" Harper Award for Development in the Field of Conifers. Nominated by Sandy Horn, Scott Antrim, and Tom Cox. Photography Jennifer Harvey



Bruce presenting Maud Henne with a Dr. Clark West seedling, *Thuja occidentalis* 'Maud', at a Southeast Region conference.

Bruce Appeldoorn has for many years been at the forefront of propagating, promoting, and, most recently, introducing many new conifer cultivars that are suitable for Southeast Region gardens. In this regard, he is a trailblazer.

Bruce operates Appeldoorn Landscape Nursery, one of the few nurseries in the Southeast (Bostic, NC, USDA Zone 7b), that is dedicated almost exclusively to the growing and selling of conifers. On site, Bruce does all the grafting and propagation of the plant material that he offers. He maintains an extensive display garden. He is an avid collector of seldom-seen cultivars. He has also been granted access to many cultivars through the generosity of other collectors.

Far beyond just operating his nursery, Bruce enthusiastically shares his extensive knowledge with others. Over the years, Bruce has held several propagation and grafting workshops at his nursery and is a trusted source of information on topics associated with conifer selection, use, and cultivation.

Bruce is very active in finding, collecting, and propagating witch's brooms discovered on conifers growing in the Southeast and beyond. He has kept meticulous records of his successes and failures, along with associated data on such things as rootstocks used, lighting, temperatures, and collection times. Bruce's work on brooms in the Southeast has even drawn the attention of the US National Arboretum



Bruce's nursery.

in Washington DC, which has added some of Bruce's plants to its own conifer collection. He is also actively engaged in propagating rare and endangered conifers from institutions such as The Cox Arboretum (Canton, GA, USDA Zone 7b). As a result, he has become instrumental in introducing these conifers into mainstream gardens.

Through the years, Bruce has contributed articles to **CONIFERQUARTERLY** and has also been recognized and published in other horticultural and conifer-related publications. He is a frequent and generous donor of plants to the American Conifer Society's national and regional auctions, further promoting the distribution of rare and unusual cultivars. He has also served as President of the Southeast Region of the American Conifer Society.

Honoring Bruce with this award clearly recognizes his longtime passion for conifers and his contributions to their diversity and appreciation, mirroring those attributes that Chub Harper himself so clearly demonstrated.



Bruce at work in his nursery.

2022 National Conference, Philadelphia

Text Judy Snow



A scene from the Morris Arboretum. Photo provided by the Arboretum.

ACS National Conference, Philadelphia, PA America's Garden Capital September 15 - 18, 2022

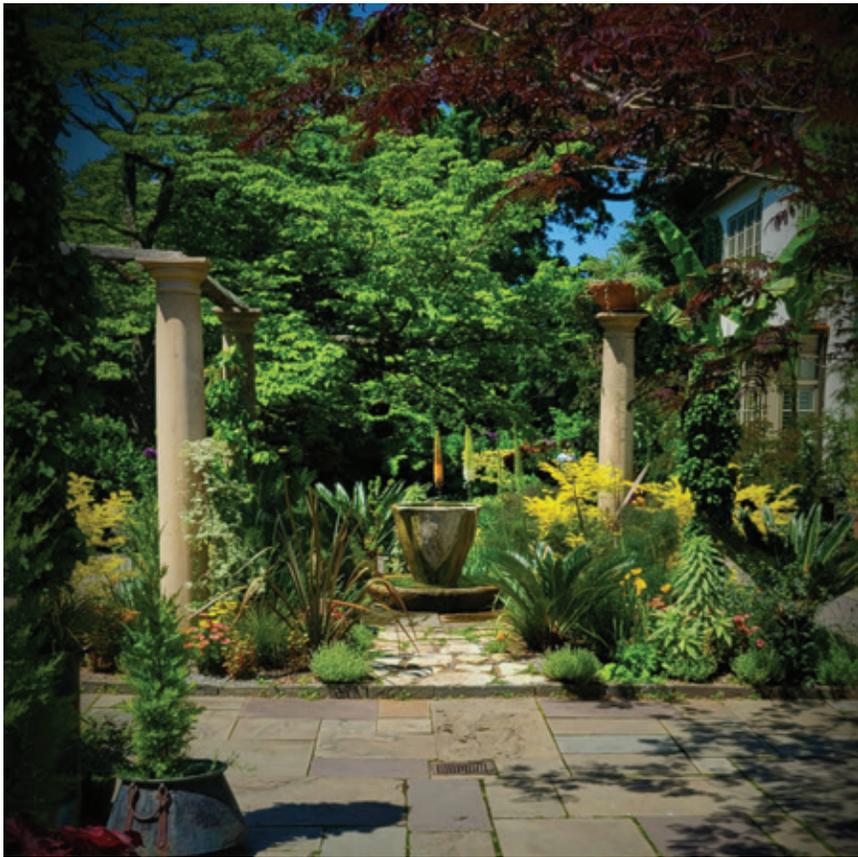
You've heard the old moniker "Philadelphia, City of Brotherly Love", a reference to its founding by the Quakers. You also learned in grade school about Philadelphia's deep roots in American history as the first US capital, where the Constitution was drafted and signed. However, did you know that Philadelphia is also "America's Garden Capital", with more than 30 gardens in a 30-mile radius of the city? The two titles have a logical connection.

The Quakers, good farmers and businessmen, prospered in the Philadelphia area, long before the American Revolutionary War. In 1728, John Bartram, a third-generation Pennsylvania Quaker, settled on a farm near Philadelphia and established a nursery, the oldest in the country. John and his son, William, collected plants up and down the eastern seaboard and did a thriving business exchanging plants with wealthy collectors in England and the American colonies. Franklin, Washington, and Jefferson were

among their famous clients. In time, the Quakers and other prosperous businessmen built large estates in the area, often with beautiful gardens and collections of conifers and other unusual plants. Some of these estates are among the 30-plus gardens that make Philadelphia "America's Garden Capital". We'll be visiting several of these as part of the 2022 ACS National Conference, but there are so many others that you should consider taking a few extra days to see, along with the art and history in the area.

[Sidebar: For a fascinating look at the impact of Bartram's Garden, read Andrea Wulf's book, *Founding Gardeners: The Revolutionary Generation, Nature, and the Shaping of the American Nation*. Bartram's Garden has been preserved and is open to the public (bartramsgarden.org). For an overview of all the gardens, check out americasgardencapital.org, where you can find descriptions and themed itineraries.]

Program Overview: The ACS planning team of Michael Larkin and Frank Goodhart have lined up a great schedule of talks and visits to several public and private gardens. The public gardens include



Chanticleer Tea Cup Garden. Photo by Mike Larkin.

Chanticleer, Morris Arboretum, Stoneleigh, and Temple University's Ambler Arboretum. The last two were recently awarded ACS Reference Garden status. The private gardens on the schedule are those of Fred and Helen Consaley and Michael Kates. You won't want to miss the popular conifer auction on Saturday night and the parking lot sale on Sunday. For those who still haven't had enough, there will be more post-conference garden visits around the New Hope, PA, area and in New Jersey, September 18 – 20 Tentative plans are to visit public gardens, including the Scott Arboretum, Grounds for Sculpture, the Gardens at Mill Fleurs, and Paxton Hill Farm, as well as the private gardens of ACS members Ed Shinn and Ridge Goodwin. More details on the post-conference tour will follow in the next issue of the CQ, and a list of all gardens to be visited will be available to registrants before the Conference. COVID-19 issues may require changes to the schedule along the way.

Home base for the 2022 meeting is the Marriott Hotel in West Conshohocken, PA, about 10 miles northwest of downtown Philadelphia. The meeting kicks off on September 15 with dinner and a talk by William Thomas, Executive Director of the Chanticleer Foundation, on "The Art of Gardening at Chanticleer". Bill is an ACS Life Member and former President of the ACS. He'll whet our appetites for a visit the following morning to **Chanticleer, A Pleasure Garden** (chanticleergarden.org), a 35-acre estate in nearby Wayne, PA.

Considered one of the most imaginative and romantic public gardens in the US, Chanticleer combines contemporary plantings within a historic setting. The property was the country home of Adolph and Christine Rosengarten, whose pharmaceutical firm became part of Merck in the 1920's. Adolph Jr. left the property for the enjoyment and education of the public following his death in 1990. Magnificent trees, unique, staff-made furniture, and decorative features add to the overall effect, along with rooster motifs throughout the garden. The conifer collection includes 87 species in 28 genera, representing seven families.

The Morris Arboretum

(morrisarboretum.org) was originally the summer home of Quaker siblings, John and Lydia Morris, heirs to an iron-manufacturing fortune. Both were avid plant collectors who shared a vision that their estate would eventually become a public garden and an educational institution. On their extensive travels, they collected plants, art, and garden design ideas from around the world. Today more than 14,000 labeled plants from North America, Asia, Africa, and Europe comprise the Arboretum's living collection. Plants collected in China by E.H. Wilson in the late 1800's and early 1900's form the foundation of the historic Asian collection. Significant plant collections include conifers (15 genera from four families), hollies, magnolias, oaks, maples, roses, flowering cherries, and witch-hazels. In 1932, the estate became the official arboretum of Pennsylvania, administered by the University of Pennsylvania. Its magnificent garden displays, sweeping views, and champion specimen trees showcase the region's best horticultural practices and plant selections. The Arboretum's

research on Pennsylvania's plant species and their habitats and its plant collecting expeditions conserve plant diversity, vital for proper environmental stewardship.

On the main line in Villanova, PA, lies **Stoneleigh** (stoneleighgarden.org), formerly an elegant country estate, the newest public garden in the Philadelphia area. This spectacular property was the home of the Haas family for three generations. In 2016, it was donated to Natural Lands, the region's largest and oldest land conservation foundation. Stoneleigh's conifer collection is comprised of species native to the temperate forests and grasslands of the eastern US, with a focus on taxa native to the Mid-Atlantic, New England, and southeast regions. There are also many notable specimens of non-native conifers, all planted during Stoneleigh's time as a private estate, including many by the renowned Olmsted Brothers' Landscape Architecture Firm. Splendid examples of 100-year-old *Thuja occidentalis* (eastern arborvitae), *Chamaecyparis pisifera* (sawara cypress), and *Tsuga canadensis* (Canada hemlock) can be found across the garden's 42 acres, along with 45 additional species and more than 110 recently planted conifer cultivars. Stoneleigh became an ACS Reference Garden in 2020.

Another new addition to the Reference Garden roster is Temple University's **Ambler Arboretum** (ambler.temple.edu/arboretum). Formerly a farm, this property became the Pennsylvania School of Horticulture



A scene from the Stoneleigh Estate. Photo by Mike Larkin.

for Women in 1911. It was founded by Jane Bowne Haines, who inherited her love of horticulture from her Quaker family. Today, as a part of the campus of Temple University, the Ambler Arboretum offers degree programs in horticulture and landscape architecture, as well as non-credit programs in floral design and aquaponics. The focus of the ACS visit will be the Colibraro Conifer Garden, dedicated in 2010 and donated by the Colibraro family. The garden includes 70 exquisite, dwarf conifer cultivars, surrounded by full-sized examples of some of the same cultivars, offering a unique opportunity for study and comparison. More than 40 other species/cultivars are located throughout the campus. Sadly, Ambler Arboretum was badly damaged by a tornado spawned by Hurricane Ida in 2021. Director Kathleen Salisbury will give us a presentation about "Gardens Past, the Current Destruction, and Future Plans for the Arboretum".

The two private gardens that we will visit are just as impressive for their size as public gardens, given that they don't have the public resources and staff to develop and maintain them. They also heavily focus on conifers, which will heighten their appeal to ACS members. The **Consaley** Garden, called "Sanctuary Much", was carved out of a densely wooded, 10-acre lot. Fred and



The Colibraro Conifer Garden at the Ambler Arboretum. Photo provided by the Ambler Arboretum.



A scene from the Fred and Helen Consaley Garden. Photo by the Consaleys.

Helen Consaley started it 40 years ago, but most of the expansion has taken place during the last 20 years. Sanctuary Much offers several different areas or “rooms”, featuring a few dozen conifer cultivars, as well as many deciduous selections. An aura of peace prevails from the flower beds around the pool and house to the Koi pond-garden, through the woodland walkway and an Asian-themed stroll-garden. The natural stream bed with its native plants and other points of interest also adds to the relaxed atmosphere. All of this was designed to maintain the rustic forest feel of the garden.

Michael Kates planted his garden over the past 21 years. It provides a sense of journey and peaceable comfort. A multitude of pebbled paths invite a contemplative ramble through the diverse, one-acre, suburban property, allowing close access to more than 150 cultivars of conifers and Japanese maples in a wide array of forms. A manicured expanse of lawn provides long vistas of grouped dwarf conifers, dominated by variegated blue and gold cultivars. Weeping specimens span numerous arbors, epitomized by a 20-foot *Taxodium* (bald cypress) tunnel. Surrounding a natural pool are impressive specimens of *Pinus koraiensis* ‘Oculus Draconis’ (dragon’s eye Korean pine), *Pinus wallichiana* ‘Zebrina’ (zebra-striped Himalayan white pine), *Pinus strobus* ‘Pendula’ (weeping white pine), and *Cedrus atlantica*



Maloney Gardens at the Morris Arboretum. Photo provided by the Arboretum.

‘*Glauca Pendula*’ (weeping Atlas cedar). There are several places to sit contemplatively in the shade. Mike’s favorite is under a densely branched Ashe magnolia (*Magnolia ashei*) overlooking the seventh green of the adjacent golf course. Other highlights include a cone-bearing Japanese umbrella pine (*Sciadopitys verticillata*), a thriving *Franklinia alatamaha* (Franklin tree), and a myriad of miniature conifers, happily filling in the limited spaces available.

More delights follow on the aforementioned post-conference tour. If these are not enough to tempt you to plan a longer stay, consider the many other attractions nearby. These include the world-famous Longwood Gardens, Brandywine River Museum of Art, featuring the Wyeth family’s iconic paintings, the Hagley Museum and Library, Winterthur Museum, the Nemours Estate, and many more of the 30-plus gardens in America’s Garden Capital. Be sure to check out that website (americasgardencapital.org) for more ideas. Save the dates and start planning!

2022 Dayton Conifer College and Central Region Conference

Text Dennis Groh, Bob Liames, and David Speth

The ACS Central Region invites you to join us for a fun and educational weekend in Dayton, OH, on June 3 and 4, 2022. The Region will host both a Conifer College and its annual conference. The two events promise to be a wonderful opportunity for coneheads to once again meet friends, tour fantastic gardens, and attend a one-of-a-kind educational opportunity.

Consider making Dayton your 2022 summer destination. In addition to the ACS events, it boasts many historic locations related to the Wright Brothers, the US Air Force, archaeological sites, museums, and parks.

Conifer College and the Central Region Conference are being managed as separate but complementary events. Both will be hosted at the Marriott University of Dayton Hotel. The Marriott is offering a special hotel room rate of \$129 per night, plus tax. To reserve a hotel room, call 937-223-1000 and identify yourself as part of "American Conifer Society 2022 Room Block".

2022 Conifer College

The theme of Conifer College is "**Conifers and Companion Plantings**". What would you like to learn about conifers: how to grow them from seed, grafting techniques, conifer cultivars, why they grow the way they do, or how to prevent winter injury? Would you like to know more about Asian maples, rock gardening, ground covers, and other popular companion plantings for conifer gardens? Whatever your interest, you are almost certain to find it covered in one or more sessions of the College.

Conifer College will be held on Friday, June 3, beginning with check-in at 7:30 am and concluding at 4:30 pm, in time to join the Conference. Because of the College's early start, a Thursday evening hotel stay is recommended.

The College will consist of two parts. Part 1 will offer 16 classes, organized into four sessions. Speakers will represent each of the ACS Regions, in order to provide material of interest to members throughout the US. From each session, attendees will be able to select one of the four concurrent classes. For a brief summary of classes and speakers, see the curriculum included in this article.

Part 2 will be a moderated question and answer session, to which all College attendees will be invited. The 60-minute Q&A session will feature a highly knowledgeable panel consisting of Conifer College speakers and other ACS experts. Panel members will share their biggest challenges and answer questions from the audience.

When registering for the College, you will be able to indicate preferences for the classes available in each of the four, Part 1 sessions. The Central Region will make class assignments, and every effort will be made to honor an individual's first choice. Conifer College attendees will be notified of their class assignments at the Conifer College check-in desk.

The registration form will include class options, registration fees, and other information. **Because class selections are required, the Conifer College Registration Form cannot be submitted electronically.** The form can be found by printing it from the ACS website.

The following is a summary of 2022 Conifer College Sessions, Speakers, and Class Titles. A comprehensive listing will be available on the ACS website.

SESSION NUMBER	CLASS NUMBER	SPEAKER	TOPIC
1	1A	Bob Fincham	The Three W's: What, Where, and Why? Exploring Behavior of Conifers
1	1B	Don Wild	The Diversity of Conifers
1	1C	Dr. Jeffery Iles	Too Large to be a Shrub...Too Small to be a Tree...But Perfect for the Mid-western Landscape
1	1D	Bob Iliames	Cohesion vs. Chaos...Creating Design in the Collector's Garden
2	2A	Jason Reeves	On the Straight and Narrow: Choices for Tight Spaces
2	2B	Julia Hofley	Conifer-Friendly Groundcovers for the Midwest
2	2C	Dr. Martin Stone	Natural History, Evolution, and Biogeography of Cultivated Asian Acer Species
2	2D	Ted Hildebrandt	Grafting - The Why and How with an Educational Demonstration
3	3A	Ron Amos	Conifer Propagation from Seed at Evergreen Nursery. Principles and Practices for Large or Small Nurseries and Hobbyists
3	3B	Jay Park	Conifer Cognition (knowing in the broadest sense)
3	3C	Dennis Groh	Asian Maple Musings - Sho Chiku Bai (松竹梅)
3	3D	Dr. Todd West	Unraveling the Mysteries of Winter Injury
4	4A	Dr. Tony Reznicek	Filling the Gaps: Integrating Rock Garden Plants With Conifers
4	4B	Tess Park	Winter Garden-Interesting conifers, woodies, perennials and hardscape visible November to March
4	4C	John Amdall	Prune, Don't Dig: Creating the Perfect-Sized Conifer
4	4D	Jerry Kral	Conifers: What The Well-Dressed Garden is Wearing

2022 Central Region (CR) Conference

The Central Region's Annual Conference (June 3-4, 2022) will be a perfect opportunity to reacquaint with fellow conifer enthusiasts who you may not have seen for a few years, as well as meet new friends.

The Conference will begin on Friday evening with a reception, followed by dinner, the keynote speaker, and your first glimpse at the fabulous auction plants.

Our keynote speaker will be Bob Fincham. Bob is an expert on conifers, having been actively involved with every aspect of the conifer world since 1974. During his keynote address, spend an hour with Bob as he talks about his friends and conifer collectors. Rather than boring biographical sketches, Bob's presentation will talk about their collective experiences with a touch of humor. A copy of Bob's book, *Gone But Not Forgotten*, will be available at no purchase price to attendees.

On Saturday, buses will transport you on a tour of Dayton area gardens. Included in the tour will be the Bette and Greg Rau Garden, the Bob and Karen Iliames Garden, and the Brad Egbert Garden.

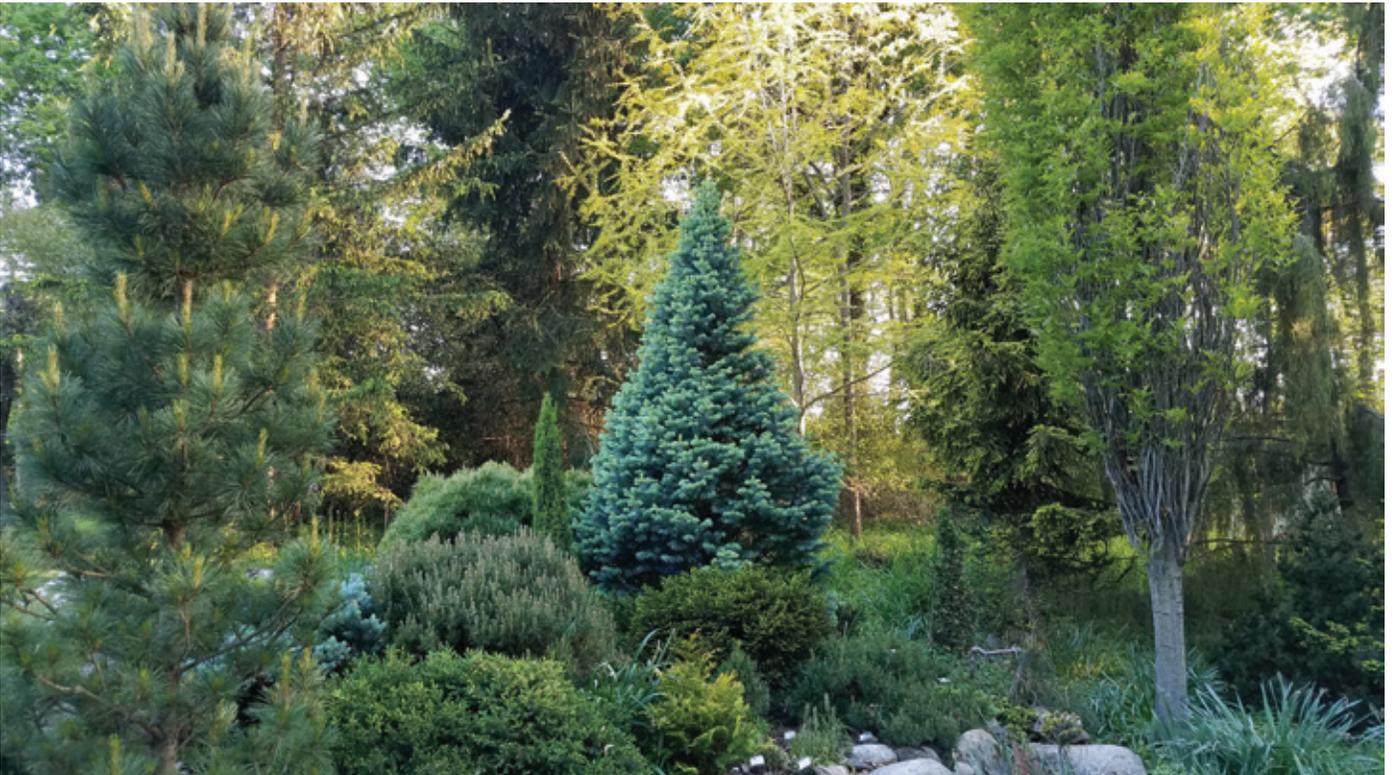
The Rau Garden can best be described as a specimen garden, filled with choice conifers, trees, hostas, ferns, perennials, and garden art. It is a canvas painted with colors and textures. Each bed features a mix of conifers, Japanese maples, and other plants. Sunny areas feature mature conifers, succulents, and ornamental trees. Shady areas are home to hostas and other perennials. Throughout the landscape, you will find one-of-a-kind garden art, handmade by Greg, including many copper wind spinners, stained glass, stone, and tree carvings. The hardscape is artfully balanced among the many gardens. Plus, you'll enjoy fountains, unusual stone and rock formations, pagodas, and a small pond.



The Greg and Bette Rau Garden. Photo by the Bette Rau.

The liames garden is a plantaholic's garden, featuring sunny and shady areas with a large display of dwarf, rare, and unusual conifers, Japanese maples, two ponds, hostas, and many other perennials – something for everyone. Bob's passion is dwarf and unusual conifers, and currently he has more than 400. Strolling through the many areas, you'll find conifers in all shapes, sizes, and colors. A rock garden combines conifers, cacti, and other colorful succulents. Look closely in the large pond. You will find many goldfish, frogs, and a turtle. Several concrete statues also dot the landscape.

Brad Egbert moved to his three-and-a-half-acre property in 2000. The property was cleared of all brush, with six hard maples (*Acer nigrum*) remaining. There is now about one acre of mixed plantings. The Garden is a mix, mainly comprised of conifers and Japanese maples with additional companion perennials. Overall, there are more than 100 Japanese maples (*Acer palmatum*) and approximately 200 conifer cultivars. About half of those are miniatures and brooms in container plantings. Brad has a passion for firs (*Abies*) and *Sciadopitys verticillata* (Japanese umbrella pine). He has been an ACS member since he obtained his first ACS Collectors' Conifer of the Year,



A view of the Bob and Karen liames Garden. Photo by Bob liames.



A bed in the Brad Egbert Garden. Photo by Brad Egbert.



One venue in the Dennis and Carole Groh Garden in Dearborn Heights, MI. This is a perfect example of mixing conifers and companion plants. Photo by Dennis Groh.

Picea orientalis 'Tom Thumb Gold' (Tom Thumb Gold Caucasian spruce). He looks forward to hosting fellow conifer lovers in what he calls his "relatively small garden".

Saturday evening will include dinner, followed by a presentation about the 2022 National ACS Conference that will be held in the Philadelphia area in September. To round out the evening, you can enjoy all the fun and antics of the Central Region's fundraising silent and live auctions.

Plans are in the works for pre- and post-tour gardens. There are rumors that several conifer suppliers may be available on Sunday morning for a tailgate sale.

Please join us and participate in the fun. The Conference, combined with Conifer College, enables you to enjoy the camaraderie that's been missing for the past three years, tour fantastic gardens, take home new treasures for your own garden, and attend a one-of-a-kind educational opportunity for coneheads and other plant nerds.

ACS 2020 Research Grant Update

Text Clayton Hale

A lack of genetic diversity has been associated with reduced evolutionary potential, limited reproductive fitness, and increased potential for extinction. Therefore, understanding the current state of genetic diversity, gene flow, and spatial structure among populations of *Chamaecyparis thyoides* (Atlantic white cypress) is necessary for the management and conservation of the species.

Our study is evaluating the geographic isolation that has affected current levels of genetic diversity and gene flow, in order to determine how spatially structured these populations are. By defining the genetic diversity and potential gene flow of extant populations of Atlantic white cypress, we will be able to provide land managers with a greater ability to ensure the survival of this unique species, along with the species that depend on it for survival.

To our knowledge, no other studies have assessed the conservation status of the species, including genetic or spatial structure. So far, we have collected samples of Atlantic white cypress from Maine all the way down to Mississippi. These samples have been sent to our co-principal investigators at the University of Tennessee Institute of Agriculture in Knoxville. Soon, they will be analyzing the samples to understand better the genetic diversity and gene flow of the Atlantic white cypress.



Atlantic white cypress seedling.
Photo, Wikipedia Atlantic White Cypress Gallery.



Atlantic white cypress. Photo by F. D. Richards on Flickr.



Atlantic white cypress cones.
Photo by Robert H. Mohlenbrook,
USDA NRCS, Wetland Science Institute, 1959.

Conifer Gardening on a Small Scale

Text and Photography Richard Niemi



The eastern boundary of the front yard includes, left to right: *Abies koreana* 'Horstmanns Silberlocke', *Picea abies* 'Repens', *Juniperus squamata* 'Holger', *Thuja occidentalis* 'Yellow Ribbon' (behind the 'Holger'), *Juniperus chinensis* 'Trautman', and three *Thuja occidentalis* 'DeGroot's Spire'. The latter have begun to grow together, but I rather like the effect.

Can you remember the moment when you were introduced to the world of ornamental conifers?

My interest in these fascinating plants was ignited at the Chicago Botanic Garden a couple of decades back, in the previous century. Imagine never having seen or heard of ornamental conifers and then coming upon a jaw-dropping collection, laid out by horticultural artists. I don't know how long I stood there gaping at some variety of low-growing spruce, a great disk of a plant a couple feet high and about 15 feet across. It was my first encounter with conifers having a form other than your basic upright cone. I had no idea. It was literally a new world.

I came away with the urge to somehow capture some of the beauty of a big garden and reproduce it in my own

yard. This dream finally began to take shape when I moved to a new property in 2008.

I live on nine-tenths of an acre, in a 1950's subdivision, in South Bend, IN. It's a neighborhood with many, very large trees and larger lots than you'd see in more modern developments. The climate is nominally USDA Zone 5b but, in recent years, has behaved more like Zone 6. In 13 years, I've planted over four dozen varieties of ornamental conifers. It's a very small-scale operation compared to some. I'm not a collector, much less any kind of expert. My purpose is beautifying this property through landscape design with limited resources. My labor and a small budget go toward plant purchases and not, for example, for excavation or installation of rock features. Even though my lot is

larger than average for a suburban setting, the approach that I've used should be equally viable on much smaller properties.

One feature that attracted me to this place was a very large, open, front yard with a southern exposure. It was a blank slate. A few holdover trees and shrubs were removed over the years, making the slate even more blank. My first task was to lay out some



The southwest corner of the front yard is defined by, in the foreground, left to right: *Juniperus chinensis* 'Plumosa Aurea', *Platyclusus orientalis* 'Franky Boy', *Picea omorika* 'Kuschen', *Juniperus procumbens* 'Nana', *Pinus Strobus* 'Mini Twists', and *Pinus silvestris* 'Gold Coin' (all from Blue Horizon Nursery). In the background: *Tsuga canadensis* 'Pendula', flanked on the right by *Heptacodium miconioides* in full bloom and a real pollinator magnet. This tree pairs beautifully with 'Gold Coin', creating a dramatic effect in winter.



Tsuga canadensis 'Bennett' in full shade, surrounded by hostas and sedum.

large beds for perennials and ornamental grasses. Then, I framed the side boundaries with a blend of medium-sized conifers and shrubs. The first plants were purchased at general-purpose nurseries here in town. Fortunately, most of them have thrived. I'm very lucky that my spacing assumptions proved reasonably accurate.

In my first half-dozen or so years here, my conifer acquisition was constrained by many factors, including what I thought was a lack of space. I devoted a lot of room to flowers and vegetables. The back yard was mostly shaded by some large trees. The front yard, though it was roughly 100 feet square in its main area, contained a septic field. Apart from the boundary conifers, I created one small conifer bed and located a few conifers in perennial flower beds. At that point, I thought I had exhausted the possibilities.

I just mentioned space constraints, but the greatest issue turned out to be a lack of vision on my part. This deficit was remedied by two significant events: (1) the death of a big tree and (2) learning about a specialty nursery an hour's drive away.

Blue Horizon Nursery, near South Haven, MI, is situated in the middle of a deciduous forest, and the first-time visitor is immediately swept off his feet by the conifer plantings on the grounds. It is literally a conifer paradise. The display gardens are an endless source of ideas for layouts, groupings, and, of course, for individual specimens. It's like visiting a botanic garden, where you can turn around and buy many of the trees you've just been drooling over.

Blue Horizon has a very large selection of ornamental conifers, literally hundreds of cultivars, a selection vastly superior to that of any general plant retailer. The condition of the stock is outstanding; the prices, extremely reasonable.

For the conifer novice, and that's me totally, an extremely important part of the experience is getting expert advice every step of the way. I always ask more than my fair share of questions, about sunshine requirements, potential size, pest issues, fertilizing – you name it. At Blue Horizon, I get patient, detailed answers.

The lesson here is that it's worth going out of your way, perhaps well out of your way, to do business in person with genuine conifer experts running a top-notch business. As a final bonus, the Blue Horizon guys urged me to join the American Conifer Society, which I finally got around to doing a couple of years ago.



Juniperus communis 'Lemon Spire' pointing the way to the front door.

The tree that opened my eyes by dying was a very large yew (*Taxus*) of unknown variety, some 25 feet wide and at least as tall, one of three yews providing a substantial screen on the west side of the turn-around area behind my house. I was heart-broken when this tree turned rusty brown early one summer. A few days after it had been removed, the wheels finally began to turn, back in the dim recesses of my old brain, and I realized that a large portion of my back yard had been liberated, or, rather, my thinking had been

jolted. An area roughly 30 × 50 feet, previously screened, was now visible from the house. It was a perfect site for a conifer garden. I installed a bed that currently holds 14 small- and medium-sized conifers and have planted half a dozen larger varieties throughout the back yard, on the fringes of a shady area dominated by two large trees: a tulip poplar (*Liriodendron tulipifera*) and a sycamore (*Platanus occidentalis*).



I went to Blue Horizon 3 years ago looking for a showstopper and came home with *Pinus x schwerinii* 'Wiethorst'. This tree uniquely combines elegance, whimsy and beauty. On the left, in the foreground, *Vitex negundo* 'Heterophilla' and behind it, *Hydrangea paniculata* 'Tardiva' – both shrubs extremely attractive to pollinators. To the right of 'Wiethorst', *Juniperus squamata* 'Dream Joy' and *Juniperus squamata* 'Daub's Frosted'.

One outcome of the Blue Horizon experience – seeing their plantings and having many conversations – has been a growing willingness to act on my landscape design ideas and not mull them over excessively. Over the years, I've been overly cautious about sticking a tree in the ground. Now, I'm more willing to have some fun, spend a little money (less than many folks shell out every year for commonplace annuals), and see which trees end up thriving and looking good. Mind you, there's still planning and thought taking place. However, ultimately, one must see how a particular specimen looks in a particular spot. Often, if there has been a surprise, it's been a very pleasant one.



My earliest conifer bed. From left to right: unknown juniper (possibly *Juniperus horizontalis* 'Golden Carpet'), *Juniperus squamata* 'Blue Star', *Picea glauca* 'Humpty Dumpty', *Chamaecyparis obtusa* 'Nana Gracillis', *Chamaecyparis obtusa* 'Gold Fern'. In the background, over the yellow juniper: *Pinus strobus* 'Horsford' and *Juniperus communis* 'Lemon Spire'.



A bed of mostly very dwarf conifers on the north side of the house; this view from the study window. From left to right: *Juniperus x pfitzeriana* 'Yellow Fever' (a Blue Horizon introduction), *Tsuga canadensis* 'Cole', *Picea orientalis* 'Tom Thumb', another 'Cole', *Juniperus squamata* 'Blue Pygmy', *Tsuga canadensis* 'White Mountain', *Chamaecyparis obtusa* 'Well's Nana Select', and *Abies koreana* 'Cis'. Standing watch in the immediate background is *Juniperus communis* 'Gold Cone'.

My largest conifer bed is in the area opened to view by the death of the large yew. Moving clockwise around the perimeter, starting on the left: *Picea alcoquiana* 'Prostrata', *Thuja plicata* 'Forever Goldy', *Picea omorika* 'Pendula Bruns', *Chamaecyparis obtusa* 'Verdon', *Pinus mugo* 'Amber Gold', *Pinus mugo* 'Jacobsen', and, bottom center, *Tsuga canadensis* 'Nessie'. In the center, clockwise from upper left: *Pinus sylvestris* 'Green Penguin', purchased from the ACS 2021 Collectors' Conifer of the Year selections; *Thuja plicata* 'Whipcord', *Juniperus horizontalis* 'Copper Harbor' (a Blue Horizon introduction); three plants surrounding 'Whipcord': *Picea glauca* 'Pixie Dust', and *Chamaecyparis obtusa* 'Chirimen'. In the lawn behind the bed: *Pinus thunbergii* 'Thunderhead' (behind 'Verdon'), and, far right, *Pinus cembra* 'Glauca Compacta'. Every tree in this photo, save for 'Green Penguin', was purchased from Blue Horizon.



I am also now more willing to replace an existing plant with a better choice. I have a fondness, a reverence, for old plants, and, over the years, I've spent significant time caring for trees, shrubs, and grasses that were here before me and the beauty of which I wanted to foster. It just hadn't occurred to me to look at a healthy tree and ask myself how the space, which that tree occupied, could be made to look better. Only a few years after the death of the old yew, my backyard is vastly more interesting and beautiful than it was.

There are many ways to deploy conifers, but beds devoted exclusively to them are perhaps the ideal way to show them off. When conifers are planted together, the beauty of an individual specimen is magnified by the contrasting beauty of its neighbors. Plants that may appear humdrum, when viewed in isolation, can be transformed into key players in an aesthetically pleasing group.

A conifer bed need not be huge. An arresting array of plants can be created in a space smaller than a modest master bathroom. The smaller the available space, the more one focuses on acquiring the smaller varieties. In addition, when working with the smaller varieties, there's less pressure to come up with perfect spacing between plants. At my age, the smaller the tree to be transplanted, the better.

It's been a lot of fun choosing the occupants for my beds, and here's where visits to public gardens and to Blue Horizon's display beds have really paid dividends. I've discovered brilliantly-imagined plant combinations that I would never have come up with on my own. I've been fortunate to have seen the New York Botanical Garden in the Bronx and the Harper Collection of Dwarf and Rare Conifers at Hidden Lake Gardens near Tipton, MI. Being in those extraordinary spaces renews the spirit and inspires creative ideas.

If one of my remaining big yews decides to cash it in, or, if I take the matter into my own hands, I'll have a major new design opportunity and an iron-clad excuse to visit my favorite nursery with a long shopping list. Meanwhile, there are small opportunities continuously offered by changes in the landscape or by improvements in my imagination, and the annual shopping list is short but still a pleasure to fill.

Finally, one idea has been resoundingly confirmed for me over the past 13 years: a small residential property can be utterly transformed by ornamental conifers.

ACS 2021 Research Grant Recipient

Text and Photography Vidya Vuruputoor



I'm Vidya Vuruputoor, a second-year Ph.D. student in the Wegrzyn Laboratory at the University of Connecticut. Our lab focuses on plant computational genomics, and, while we have many projects ranging from mosses to horseshoe crabs, we also have a great interest in forest tree genomics. I did my Master's in plant biotechnology at the Wageningen University & Research in The Netherlands. I became interested in genomics, and its applications in forest tree genetics. I was fortunate to meet Dr. Gregorz Wegrzyn, who helped me blend my two interests, bioinformatics and forest tree genomics, and has supported me so far in my PhD program.

I'm currently working on studying the *Adelges tsugae* (hemlock woolly adelgid, HWA) and hemlock tree interaction. Hemlocks are an integral part of the forests of Eastern North America. Over 25% of this forest cover is infested with small, sap-sucking adelgids that kill these trees in less than five years. Understanding the genetic

variance within and among *Tsuga* species can help in leveraging innate host resistance against the HWA.

Among the hemlock species, *Tsuga chinensis* (Chinese hemlock) is the most resistant to HWA. This has been attributed to its unique needle morphology and metabolite profile. Resistant hemlock profiles are known to produce specific terpenoids and have advantageous relationships with soil bacteria that aid in the host's tolerance of the adelgid.

As a part of my research, I will try to analyze potential correlations between transcriptomic, metabolomic, and soil metagenomic profiles in hemlock species and their tolerance of HWA. I have been fortunate to receive a grant from the American Conifer Society, which I plan to use on sequencing the genome of the Canada hemlock (*Tsuga canadensis*), aiding further research in understanding how hemlocks respond to the adelgid.



Tsuga chinensis, courtesy of the JC Raulston Arboretum Photograph Collection.



Tsuga adelgis, courtesy of the University of Massachusetts Center for Agriculture, Food, and the Environment.

2021 Snyder Award

Text Jeff Harvey



Priya Lovett provided this photo of herself and Bob. The location and photographer are unknown.

Nominated by Tom Cox.

The 2021 Snyder Award is given posthumously to Robert Lawson Lovett, who created the Lovett Pinetum, which now has two locations. The first is just outside of Springfield, MO, and was started on 14 acres. The Springfield property is now just over 100 acres. The second property is near Lufkin, TX, in the Angelina National Forest, and is just over 40 acres.

Robert started the two pinetums just over 50 years ago and landscaped the grounds with many species of conifers, as well as native plants. The primary mission of Robert's pinetums is to grow all possible conifers that are adaptable to the two regions. The collections contain 3,439 documented specimens. The pinetums are open by appointment.

There is more information about Robert and his foundation in the 2021 Summer **CONIFERQUARTERLY** Vol. 38, No. 3, p. 24 in an article written by Tom Cox. Information on the Lovett Pinetum is also available at lovettpinetum.org.

Thank you, Robert, for creating such wonderful places for all to enjoy.

DIRECTORATE

NATIONAL OFFICERS

President

Jeff Harvey, 2910 Poplar Hill Rd., Watertown, TN 37184-4539,
615-268-7089, president@conifersociety.org

Vice President

Deb Guardia, 1208 Creekmoor Dr., Raymore, MO 64083,
217-390-0184, debguardia@comcast.net

Treasurer

Robin Mann, 555 Timberlea Trail, Kettering, OH 45429
937-469-5754, rmann1993@yahoo.com

Secretary

Jennifer Harvey, 2910 Poplar Hill Rd., Watertown, TN 37184-4539,
615-268-7032, jrosethorn@gmail.com

REGIONAL DIRECTORS

Central Region President

Phillip McCormick, 2016 Avalon Dr., Waukesha WI 53186,
815-499-6616, mccormickphillip@yahoo.com

Director

Mike Weber, 1006 S. Prospect Ave., Champaign, IL 61820,
217-649-2099, mweber@cfs-inc.net

Northeast Region President

Michael Larkin, 7191 Audubon Dr., Harrisburg PA 17111,
717-561-0704, mlgarden@verizon.net

Director

Suzanne Mahoney, 150 Elm St., Hannover, MA 02339-2828,
781-826-2915, misue393@gmail.com

Southeast Region President

Mike Garner, 100 Edmonds Pl., Paris, TN 38242
731-336-5984, mgarner45@charter.net

Director

Sandy Horn, 210 Dry Ave., Cary, NC 27511-3208,
919-244-3556, sphxxx3@gmail.com

Western Region President

Don Brooks, 327 NE 95th Street, Seattle, WA 98115,
206-523-7083, donbrooks@gmail.com

Director

Vacant

STAFF & VOLUNTEERS

National Office

Leslie Thomas, Executive Director, 8441 Wayzata Blvd, Suite 270, Golden Valley, MN 55426,
763-253-4311, nationaloffice@conifersociety.org

CONIFERQUARTERLY Editor

Dr. Ronald J. Elardo, 5749 Hunter Ct., Adrian, MI 49221-2471,
517-215-1305, theconifercollective@gmail.com

Interim Website Administrator

Jeff Harvey, 2910 Poplar Hill Rd, Watertown, TN 37184-4539,
615-268-7089, webeditor@conifersociety.org

Collectors' Conifer Chair

Dennis Lee, PO Box 1332, Stow, OH 44224,
330-688-4283, coniferden@msn.com

Seed Exchange Chair

Jim Brackman, Old Highway 410 SW, Olympia, WA 98512,
253-736-5864, treeguy45@comcast.net

Conifer Registrar

Gregory A. Payton, The Dawes Arboretum, 7770 Jacksontown Rd., Newark, OH 43056,
800-443-2937, gapayton@dawesarb.org

Conifer Database Editor

Bill Barger, 3200 Rohrer Rd, Wadsworth, OH 44281,
330-697-4603, billb@conifergarden.org

Scholarship Chair

Lois Girton, 2519 Hoover Ave., Ames, IA 50010-4453,
515-451-3957, scholarships@conifersociety.org

Reference Garden Chair

Deborah Merriam, 382 Franklin St., Cambridge, MA 02139,
617-868-0257, dmerriam@comcast.net

