IN THIS ISSUE

4 International Tree Climbing Competition  6 What is an Arborist?  12 “Green” Practices  14 WYG Pavilion Opening
DEAR FRIENDS OF THE NATIONAL ARBORETUM:

Watching spring arrive and morph into summer here at the Arboretum over the past few months has been a most inspiring experience.

From the spectacular azaleas near FONA’s Arbor House offices to the peonies in Asia Valley on the other side of the Arboretum, the return of green leaves and colorful blossoms inspires a sense of renewal and optimism in everyone who visits. That same sense of renewal is what FONA, its staff, and its members will be bringing to the Arboretum in the coming months. We’ll be working to make the Arboretum look even better, be more friendly to visitors, and serve as a unique showcase for conservation and education.

We recently embarked on a significant step to improve our visitors’ experience at the Arboretum by retaining the award-winning landscape architecture firm Reed-Hilderbrand to create a plan to improve the Arboretum’s core area. That core consists of the central meadow and the Capitol Columns and includes the Flowering Tree Walk, Herb Garden, azalea collection, and Washington Youth Garden. Once the plan is ready later this year, we will share it on our website and other platforms, and we will continue to share our progress with you as we put it into place. The plan will guide the programs that we develop, explain the projects that we launch, and provide a framework that will help us focus our efforts to raise support for the Arboretum. Stay tuned for more information as this plan progresses.

In the meantime, please be sure to visit and enjoy the sights, sounds, and smells of this remarkable place. The young bald eagles that hatched here in March have recently fledged their nests, and they are now flying above the Arboretum. From the spectacular azaleas near FONA’s Arbor House offices to the peonies in Asia Valley on the other side of the Arboretum, the return of green leaves and colorful blossoms inspires a sense of renewal and optimism in everyone who visits.

Thanks—and come visit!

In the Trees

“The tree collection at the Arboretum is a living museum for scientific study. Our first director laid the course for our development ninety years ago. Today, our more than 8,000 accessioned trees, along with many more naturally occurring trees, represent the taxonomic, ecological, and genetic diversity of adaptable trees for planting in the mid-Atlantic region. Children and adults are drawn to trees, our most noble and magnificent photosynthetic denizens of terrestrial habitats. While their virtues have long been praised in various art forms throughout the ages, they are finally being given due as important anchors of natural and urban forested ecosystems and not mere ornamental or utilitarian components of the built environment. The simplest definition I ever heard for what makes a tree “a tree” is that “if you can walk under it, it’s a tree; around it, then it’s a shrub.” That might suffice for an adult, but as a kid growing up, I would say “if you can climb it, then it’s a tree.”

Unfortunately for kids, we cannot sanction climbing our trees. However, we can support events that get children and adults into trees with the help of our partners. This May we hosted our first-ever kids tree-climbing event with our friends at the Davey Tree Expert Company, Casey Trees, and FONA. More than 400 kids were harnessed and hoisted into a large white oak (Quercus alba) by certified arborists. For many, this was their first time engaging with trees and nature from the vantage point of a squirrel.

The kid’s climb was just a prelude to our most significant tree-related event in decades at the National Arboretum—The International Society of Arboriculture (ISA) International Tree Climbing Championship! On July 28-30, professional arborists from around the world will participate in a series of competitions to test their tree-climbing and arboricultural skills in selected mature trees at the National Arboretum. Concurrent with the competition is the Arbor Fair, a family event with tree-climbing activities for the kids, arts and crafts vendors, live demonstrations, performances, and music. This is truly a once-in-a-lifetime opportunity for tree fans in the DC metropolitan area. Come celebrate with us all the wonder, beauty, and joy trees add to our lives and communities.”

Richard T. Ollen, Director
The United States National Arboretum

Kathy Horan’s Farewell to FONA

Fourteen years ago, and it seems like yesterday! It was my first day, beginning my new job as Executive Director of FONA at the Arboretum after many years of living on the west coast. I was trying to find Arbor House from the New York Avenue entrance … not easy! I met Johann Klodzen (National Bonsai Foundation) who has been my friend and office mate all these years and who gradually introduced me to our amazing Arboretum staff. Whatever I needed, they were always there to help. Another true highlight has been getting to know the hardworking, determined, and passionate board members who are so dedicated to the mission of FONA. They have been my co-pilots from my early days as Executive Director (and solo employee) to the present, and their participation has been invaluable. But I am now looking toward new adventures as I retire this June. This has been an incredible, life-changing experience for which I am so very grateful. I thank each and every one of you.

Our Arboretum neighborhood has also undergone change during my time here. Costco arrived, along with other development projects. New condos and trendy restaurants seem to sprout up overnight. But our 460 acres of greenspace remain as tranquil and wonderful as ever. The Arboretum is as exciting and important as any brick and mortar museum. So visit often, enjoy our summer programs, and INVEST in FONA and its mission to support the Arboretum. I will miss you. See you at the Arboretum!

Have a lovely summer,
Kathy

PS. I already joined the 2018 Garden Fair committee… how could I resist?"
or three days in July, visitors to the National Arboretum will have the opportunity to witness an exciting contest as dozens of arborists compete in the International Tree Climbing Competition (ITCC). Managed by the International Society of Arboriculture (ISA), the competition takes place July 28–30 in conjunction with the ISA’s annual conference, which is being held at the Gaylord National Convention Center.

Having the competition here is a first for the Arboretum, whose staff has long lobbied to host the event. In her proposal to the ISA several years ago, former director Dr. Colien Hefferan described the Arboretum as “the perfect setting for the climbing contest” with its “large trees in open areas.” “After pushing for this for years, we are very pleased to be the site for the competition,” says staff arborist Susan Greeley. She echoes Dr. Hefferan’s sentiment recognizing “the incredible opportunity the competition provides for the Arboretum to gain international recognition.”

Tree climbing competitions started in California as a way to train climbers to perform life-saving aerial rescues. The popularity of these contests grew, and in 1976, they became part of the ISA's annual conference. Europeans entered the competition in 1994, making it an international event. The arborists competing in July are men and women who represent chapters throughout North America, Europe, and Asia, and all have won local or regional tree-climbing events.

The site for this year’s competition is the Arboretum’s flowering tree collection, where the oaks are suitably tall for the participating arborists to demonstrate their skills as they vie for the world championship. There are five events that simulate working conditions that arborists encounter in the field. These serve to qualify the competitors for the Masters’ Challenge Championship, which determines the world champions. The qualifying events are scheduled for Friday, July 28, and Saturday, July 29, with the championship event to take place on Sunday, July 30.

Members of the public will be able to try tree climbing for themselves in the Arboretum’s Fun Climb. Photo credit: ISA

The ITCC comprises the following events:

- **Work Climb** tests the competitor’s ability to move around in a tree by using a tree-climbing rope and harness and to perform several work tasks.
- **Aerial Rescue** is a timed event that tests the climber’s ability to climb to and safely lower an injured climber who is unable to descend without assistance.
- **Throwline** is a timed event in which the competitor attempts to toss a line through two of eight targets, testing his or her ability to accurately place a climbing line in a tree at heights of up to 60 feet.
- **Belayed Speed Climb** tests the climber’s ability to climb a predetermined route from the ground to about 60 feet up a tree using a delayed climbing system. (Belaying is a method of securing and slowing a climbing line, using a knot, a mechanical device, or a person to tend the slack in the rope.)
- **Secured Footlock** measures the contestant’s ability to perform a vertical ascent into a tree using a specific approved hitch for fall protection and the footlock rope-climbing method on a doubled climbing line.

Competitors receive scores based on their performance on each of these preliminary events. The top finishers move on to the culminating event—the Masters’ Challenge Championship. This event judges contestants’ techniques and skills with a rope and saddle in the tree, with work tasks similar to those in the Work Climb event. The top scoring male and female competitors are named the World Champions.

In addition to the tree-climbing competition, the Arboretum will host a variety of other activities on July 28–30, including tree and plant ID walks, bonsai workshops, and an Arbor Fair. The Arbor Fair is a free public event that will feature educational exhibits, information sessions, tree demonstrations, and interactive children’s activities. There will also be a fun climb for kids and adults who want to try out their own tree-climbing skills.

For more information about the ISA and its mission, go to itcc-isa.com

KAREN ZILL is a DC-based freelance writer. Her work includes discussion guides for film and public television programs, memoirs, essays, and nature writing.

SUMMER 2017
You might have seen them trimming branches along the roads, or sawing fallen trees after a storm, or even climbing trees at the Arboretum. But do you know all the ways arborists are working with trees to help our society every day? The following is a brief overview of arborists.

What is an arborist?
An arborist cares for trees and other woody plants. He or she will probably seek professional accreditation from the International Society for Arboriculture (ISA). Once certified as an arborist, there are several specialties to focus on. Depending on their chosen specialty, arborists may work as municipal arborists for city governments, utility arborists managing trees around utility lines, a registered consulting arborist, or an arborist focusing on tree climbing or operating a bucket truck.

The term “arborist” is relatively modern. When John Davey, who wrote the book on urban forestry, was working in the early 1900s, he was called a tree surgeon since he cared for his patients by cutting tree branches, chiseling out decay, and filling holes with concrete.

Where do arborists work?
Municipal arborists work for a city directly or under contract, working with all trees on public property such as parks and right-of-way areas. Utility arborists work in the spaces around power, telephone, and other utility lines. Consulting arborists can work anywhere a tree is growing in a maintained landscape. Arborists typically do not work in natural forests as foresters do, but instead are involved in urban forests in cities and communities where they can focus on any trees, woody plants, or resources needed for growing trees.

When do arborists work?
Some work is seasonal and picks up in the spring, but the most urgent work may be in winter after ice storms have toppled trees, strewed snapped branches in roads, and caused power outages. The emergency response teams are on call 24/7.

What do arborists do?
The arborist profession covers many roles, and an individual may focus on one or more of them, including:

- **Plant pathology**—diagnosing disease, insect pest invasion, or poor site conditions that lead to the poor health of a tree and then prescribing a plan to improve its health.
- **Utility work**—trimming branches or removing trees that pose a threat to human safety or suspended utility lines.
- **Managing tree risk**—identifying structural weaknesses in trees and the factors that lead to loss of strength such as decay. These men and women help property owners identify trees at high risk of failure and recommend what needs to happen next, such as limb removal or tree removal.
- **Tree inventories**—mapping all the trees at a given site (e.g., city/urban area, golf course, or cemetery) and gathering data about the size, type, and condition of the trees, noting vacant sites for new tree plantings, and so on. These arborists construct a tree inventory management system, write management plans, and evaluate the diversity of tree types, ages, and sizes. This analysis is beneficial for addressing ways to make urban tree populations healthier, more resistant to disease, more resilient in storms, safer for people to be around, and less costly to the people in the community.
Why do arborists choose this work? Speaking on behalf of his colleagues throughout the world, Laverne replies “It’s wicked fun!”

What is the connection between arborists and the International Tree Climbing Contest?
A small subset of arborists are tree climbers. They can disassemble trees branch by branch, 100 feet off the ground, lowering the wood down to earth with ropes, all the while working around the obstacles of utility lines, streets, and people below. “It’s like logging, but harder” is the admiring description from R.J. Laverne, Manager of Education and Training at Davey Tree Expert Company. A tree climber “has to be part monkey and part Einstein,” according to Laverne, to get into the tree with a multitude of trees on the Arboretum’s 446 acres: tree removals and felling, preventative treatments, and reactive treatments. Arborists at the National Arboretum

Consulting arborists and U.S. National Arboretum staff arborists, including Kevin Tunison, Christine Moore, and Sue Greeley, provide vital care to the Arboretum’s collections.

Why do arborists and their work matter?
Arborists care for and manage trees to benefit humans. Economic benefits come from the healthy trees near a home, which shade the house and thus decrease the need for air conditioning. This means the homeowner spends less on electricity and therefore less energy has to be produced by burning fossil fuels. Large and healthy tree populations improve air quality, which is an environmental benefit to humans. Many studies have proven the social benefits of trees—that access to trees and nature improves our mental health and emotional state. The work of arborists improves the health and vigor of trees in the communities where we live, bringing about economic, environmental, and social benefits to these communities. 

Why do arborists choose this work? Speaking on behalf of his colleagues throughout the world, Laverne replies “It’s wicked fun!”

What is the connection between arborists and the International Tree Climbing Contest?
A small subset of arborists are tree climbers. They can disassemble trees branch by branch, 100 feet off the ground, lowering the wood down to earth with ropes, all the while working around the obstacles of utility lines, streets, and people below. “It’s like logging, but harder” is the admiring description from R.J. Laverne, Manager of Education and Training at Davey Tree Expert Company. A tree climber “has to be part monkey and part Einstein,” according to Laverne, to get into the tree with a variety of climbing equipment such as rigging, harnesses, and ropes, and then draw on a keen understanding of physics and gravity to disassemble the tree safely, lowering the heavy parts without crushing himself or anything below.

Tree-climbing arborists are in a dangerous profession, and thus require continual training, assessment, and learning. The industry has high numbers of workplace injuries and fatalities as a result of workers falling or being struck by trees, so safety is a paramount concern to professional organizations like the ISA, which is organizing the International Tree Climbing Competition, and the related ISA Annual Conference, which offers lectures and workshops for professionals.

This page Bartlett Tree Experts staff put straps on the storm-damaged branches of the huge willow oak to keep them from splitting further before the rods were installed for more permanent protection. Photo Credit: USNA. Following page: In June, volunteers from many partner groups come for a service day to prepare the trees for the climbing competition. Photo Credit: USNA.

CLAUDE BRODERICK remembers climbing up pine trees as a kid but is happy to leave the real work to the professionals. She is grateful to self-proclaimed “tree nerds” R.J. Laverne and Sean Brewda at Davey Tree for sharing their knowledge about urban forestry with such readiness and exuberance.

This page Bartlett Tree Experts staff put straps on the storm-damaged branches of the huge willow oak to keep them from splitting further before the rods were installed for more permanent protection. Photo Credit: USNA. Following page: In June, volunteers from many partner groups come for a service day to prepare the trees for the climbing competition. Photo Credit: USNA.

CLAUDE BRODERICK is grateful for the collaboration of Christine Moore, USNA Horticulturist, who holds an Arborist’s Certification from the ISA.
FONA invited members of the David Fairchild Society to a reception for the unveiling of the Donor Wall in the Administration Building and to preview the plant tent full to the brim the night before the Garden Fair. Photo Credit: Dan Weil

This year, the Garden Fair was bustling in its new location by the Administration Building.

WYG staff members Jake Dacks and Nadia Mercer cut the ribbon for the Washington Youth Garden’s grand opening—with garden shears, of course.

Kicking off FONA’s Summer Evenings Concert Series, the No Part of Nothin’ band played bluegrass in the Meadow.

Yoga class in the Bonsai Museum courtyard, followed by a curated tour—how relaxing. The National Bonsai Foundation is hosting more classes in their Summer Yoga Series. Photo Credit: National Bonsai Foundation

FONA’s Annual Dinner Under the Stars celebrated both the Great Lakes States and the National Arboretum’s 90th anniversary. A beautiful June evening in the Meadow! Photo Credit: James K. Pleasant

Spring at the National Arboretum
“Green” Practices at the Arboretum

Claire Broderick

Keep an eye out for some of the many ways the Arboretum applies earth-friendly solutions on its grounds to environmental problems.

COMPOSTING

Washington Youth Garden knows all about composting and uses its piles of compost to teach students on field trips all about decomposition. You can imagine the screeches of delight from kids who pull worms out of the compost pile! WYG partners with Compost Cab, a local company that collects compostable materials around the DC area and maintains the huge piles at the Youth Garden.

MULCH AND GREEN WASTE

As a rule, the Arboretum staff try not to remove every fallen tree or branch, leaving some in place to provide habitats. These little changes add up. But when there is a danger to people or collections, limbs are pruned and unhealthy trees are removed to be run through a chipper and turned into mulch. If the number of tree removal projects in a given year is low, the Arboretum may purchase some additional bags of mulch, but there have been years when the Arboretum produced enough mulch to meet all its garden needs. The weeds, brush, tree limbs, and other green waste generated by maintaining the gardens is composted or chipped and stored in piles until needed.

SOLAR PANELS

The Arboretum has been partnering with Alfred State College for about a decade to have students design and implement projects that increase sustainability at the Arboretum. Taking their cues for ideas from the Arboretum, Professor Jeffrey Stevens, his assistant Sean Kelley, and students in the electrical construction and maintenance electrician program spend a semester evaluating, researching, designing, and building projects and then devote several days to installing their systems at the Arboretum. The classes have contributed such projects as:

- A solar array on top of the Administration Building
- A solar array on the roof of Arbor House where the gift shop and FONA’s offices are located
- A solar array at the “Nurser5” fields to power an irrigation system
- A solar trailer “consisting of an array of solar panels, deep cell batteries, and the equipment to monitor the array and batteries,” which powers the Eagle Cam’s two HD cameras, the infrared light, and nest microphones.

MEADOW

When Kevin Tunison first started working at the Arboretum in 1992, there were almost no meadows on the grounds and every open space was mowed in those days. By leaving roughly 30 acres of meadowland in front of the Capitol Columns unmowed, the Arboretum frees staff to work on other projects, reduces wear and tear on the mowing equipment, provides habitat for wildlife such as ground dwelling birds, lessens fuel costs, and reduces its carbon footprint. Converting turf area into meadows originally met with resistance, but over time an appreciation has developed for the aesthetic pleasure of long grasses blowing in the wind and winding paths leading to the Columns.

CLAIRE BRODERICK is the Membership and Grants Coordinator at FONA, which benefits from the solar array on top of the Arbor House offices. She is grateful to USNA staff Kevin Tunison and Sue Greeley for gladly sharing their knowledge.
Nadia Mercer

WASHINGTON YOUTH GARDEN

The New Washington Youth Garden Pavilion is Officially Open!

The Ribbon Cutting on June 5 celebrated the new space for educational programming, with many friends and supporters in attendance.

The new pavilion at WYG’s demonstration garden is the result of a partnership among the Weissberg Foundation, local businesses, and nonprofit organizations working together to benefit school groups and families from underserved D.C. neighborhoods and other communities in the region. The pavilion is dedicated to the late Judith Morris who was passionate about sharing nature and the Arboretum with surrounding communities and underserved youth.

Located adjacent to the garden, the 60’ x 25’ accessible pavilion can accommodate up to 50 people. Made of recycled wood and plastic, it replaces a temporary tent donated by Terry MacFarlane that was in place for many years. The roof channels rain water into 500-gallon cisterns, nelsons rain water into 500-gallon cisterns, and once coiling flat upon the ground will be best.

Deep watering encourages deep root growth. By contrast, shallow watering will encourage development of surface roots. Plants with shallow roots will suffer first during a dry spell. Be certain water is percolating 4-6 inches into the soil.

Remove the car wash spray gun from your tools and instead invest in a diffuse hose nozzle watering wand held at the root system will put water exactly where it is most useful to the plant.

SIGNS OF WATER STRESS:
• Leaves lose their luster.
• Blossoms or fruit drop prematurely.
• Foliage wilts.
• Inner leaves will yellow and drop.

Water in the Early Morning. During the hot summer months, watering for an hour between the hours of 6:00am and 8:00am is worth three hours of watering, the rest of the day because of evaporation.

In contrast, the gentle water pressure from a diffuse hose nozzle watering wand can cause damage and spray directed at roots will force mulch aside exposing feeder roots to the drying effects of air and sun. For garden care. Here are few tips to help keep frustration with this essential tool to a minimum:

• Invest in a Quality Hose and care for it properly.
• HOSES SHOULD BE STORED CAREFULLY with weight distributed evenly; hose hangers, hose reels, or even coiling flat upon the ground will be best.

Always coil your hoses in one direction.

Avoid storing a twisted hose to eliminate the potential for kinks.

Never store your hose with a kink; the hose will remember this kink.

Replace rubber washers every spring to eliminate water leaks at the hose bib/hose sprinkler/watering wand connection.

Follow Designs for Greener Gardens on Facebook.
The Friends of the National Arboretum is an independent, nonprofit organization established to enhance, through public and private sector resources, support for the U.S. National Arboretum.

HAPPENINGS

BONSAI EXHIBIT: THE BONSAI SAGA: HOW 53 JAPANESE BONSAI CAME TO AMERICA
Through October 1, 10:00am–4:00pm
National Bonsai & Penjing Museum Exhibits Gallery
In 1976, to celebrate our nation’s 200th birthday, we received 53 masterpiece bonsai from Japan. This exhibit features images and film from our archival collection to tell the story of this incredible gift, which led to the establishment of the first museum in the world dedicated to miniature trees. Free

2017 INTERNATIONAL TREE CLIMBING CHAMPIONSHIP WITH ARBOR FAIR AND EXPO
July 28, 12:00pm–4:00pm; July 29, 8:00am–4:00pm; July 30, 9:00am–2:30pm
Location: near the Arboretum’s Administration Building and the tall trees overhead
The International Society of Arboriculture has chosen the Arboretum as the site for its annual competition. Come and see arborists compete in professional tree-climbing activities. There will be tree and plant identification walks, bonsai workshops, and exhibitors and vendors to check out. The Arbor Fair and Expo is a free educational and fun event for the general public that focuses on environmental issues and promotes proper tree care. You’ll also see tree-climbing demonstrations, interactive children’s activities, local artisans, and much more.
See page 5 for more details! Free.

WASHINGTON YOUTH GARDEN’S ANNUAL STROLLING SUPPER
September 23
Check FONA’s website this fall for more details.

“OAK”TOBER FEST
Coming to the Arboretum this October.
Check FONA and the Arboretum’s websites this fall for more details.

Check events on the National Arboretum’s Events page at http://www.usna.usda.gov/Education/events.html

Follow FONA on Facebook!