

LANDSCAPE *culture*

Contents

Arborist Training Program 2021-22 Cohort Graduates 1

Rejuvenating Cane-Growing Shrubs . 5

Tool of the Moment: Mini Handheld, Battery-Powered Chainsaw 7

Employee Spotlight 8

Video Corner 9

Training Opportunities 9

Arborist Training Program 2021-22 Cohort Graduates



Brian Teets, peer instructor, teaches pest and disease diagnostics at Yellowstone National Park (NPS).

After two years, including the challenges of Covid, the 2021-22 Arborist Training Program (ATP) cohort graduated in December 2022. The NPS now has five newly certified arborists and ten more waiting for their test date with the International Society of Arboriculture (ISA). Congratulations to the first five to take the test, Sergio Sanchez (DEWA), Gene Long (GWCA), Charlie Brown (EISE), Michelle Richardson (CARI), and Dan Boughter (GRCA), on passing the ISA Certification Exam!

Participants in the training program included NPS staff members from all regions but Alaska. The students, who mostly came from a maintenance background, expanded their skills to improve care for trees at their parks, while also joining a community of practice that they will be a part of for the rest of their careers. Students with existing knowledge and skills also gained teaching experience as peer instructors. Check out this map to put a face to many of the participants: [ATP 21/22 Web Map App](#).

About Us

Learn more about [cultural landscapes in the National Park System](#).

Learn more about the [organizational management of NPS cultural landscapes](#).

Park Cultural Landscapes Program [sharepoint](#).

For current news about NPS cultural landscapes, join us on social media:





Students taking a tree identification quiz at Fredericksburg & Spotsylvania National Military Park (NPS).

2021-22 ATP Cohort

NER

Sergio Sanchez (DEWA)
 Charles Brown (EISE)
 Brenda Wasler (WEPA:
 FLNI, FONE, FRHI, JOFL)
 James Hogan, ISA
 Certified, Teaching
 Assistant (HAMP/FOMC)

MWR

Dovie Cagle (JEFF)
 Ethan King (HOSP)
 Gene Long (GWCA)

SER

Michelle Richardson (CARI)

IMR

Fritz Maslan (CARE)
 Dan Boughter (GRCA)

PWR

Brian Spang (FOVA)
 Michael Evans (GOGA)
 Adam Foldesi (YOSE)
 Matthew Stasiak (YOSE)

Program Information

[The Arborist Training Program](#), administered by the [Olmsted Center for Landscape Preservation](#) (OCLP), provides a virtual classroom and field-based educational opportunity for NPS employees to develop specialized skills in sustainable tree care. The program is designed to provide career development for landscape employees while building the capacity of parks to maintain and preserve significant landscapes. Instruction adapts curriculum developed by the International Society of Arboriculture (ISA) with the goal of producing more Certified Arborists within the NPS ranks. The ISA Arborist Certification signifies that professionals have knowledge and training in many aspects of arboriculture. The Arborist Training Program curriculum covers tree identification, assessment, pruning, risk management, support systems, tree biology, tree selection, and planting.

Program Revisions

This was the first training cohort organized by Brooke Derr, Horticulturist for OCLP. Prior to this, she worked as the Horticulturist at Hampton National Historic Site. Using her park experience as a foundation, she revived the program with help from former ATP instructors and graduates, subject matter experts, host park staff, OCLP staff, and feedback from the participants themselves.

In past years, ATP provided a significant amount of instruction and practice to introduce staff to climbing and working in trees. In 2020, the curriculum was changed by removing the tree climbing components and increasing virtual engagement. The program focuses on knowledge and skills to form a broad-based arborist skill set based on the ISA curriculum, with components on developing tree work plans and projects in the National Park Service.



Pennsylvania State University Professor of Arboriculture teaches basic tree assessment skills (NPS).



Pruning field session at Gettysburg National Military Park (NPS).



Students taking a tree identification quiz at Fredericksburg & Spotsylvania National Military Park (NPS).

Benefits to Parks

ATP is designed to increase NPS staff capacity to:

- » make tree care decisions,
- » execute tree care tasks with confidence,
- » lead or participate in tree management planning,
- » develop tree work projects, and
- » oversee contractors.

Thus, in addition to a full suite of standard tree care topics, the curriculum is tailored to the NPS with introductions to Cultural Landscape Inventories and Cultural Landscape Reports, planning and compliance (PEPC), facilities asset management (FMSS), project development (PMIS), and other internal processes. Parks with ISA Certified Arborists from the program will now have the capacity to manage tree health through project development and preservation maintenance tasks.



ATP Students and Instructor at bottle garden in Oakland Plantation at Cane River Creole National Historical Park during a field session (NPS).

Feedback from Participants

ATP is the premier training for professional development of landscape staff within the NPS. Participants said that ATP was an opportunity to build community and learn from each other's experiences. Participants were able to learn the language of arboriculture, which allowed them to assess tree condition and have informed conversations with other tree experts, leading to overall better decision making. One participant stated, "The information sharing, process, design, and atmosphere made for one of the best learning environments I have experienced in an NPS training."

ATP 23-24 Cohort Recruitment

If you would like to expand your skills and knowledge in arboriculture, OCLP is recruiting for their next group of ATP students. Click [here](#) to access the ATP 23-24 Application Form. Applications are being accepted through March 1, 2023.



Adam Foldesi and Michelle Richardson, peer instructors, teach basic knot tying at Cane River Creole National Historical Park (NPS).

Rejuvenating Cane-Growing Shrubs

The growth habit of a shrub relays information to a gardener about how to prune it. Shrubs can be divided into three categories by habit: mounding (traditional round form), tree-like (central trunk and the branching structure of a tree but remain under 15 feet tall), and cane-growers (growing from the base with multiple long stems). Lilacs, weigelas, forsythias, redosier dogwoods, mock oranges, hydrangeas, flowering quinces, and smoketrees are examples of cane-growing shrubs.

Cane-growers tend to be vigorous plants with a somewhat unruly growth habit. Due to their vigor, their pruning budget (quantity of live branches that can be removed in a year while maintaining plant health) is the highest of all three shrub habit categories. Put another way: they are the most tolerant of heavy pruning. Most cane-growing shrubs can withstand removal of one-third of all live plant material in a growing season, and many will regrow even if they are cut to the ground (a specialized pruning technique called coppicing).

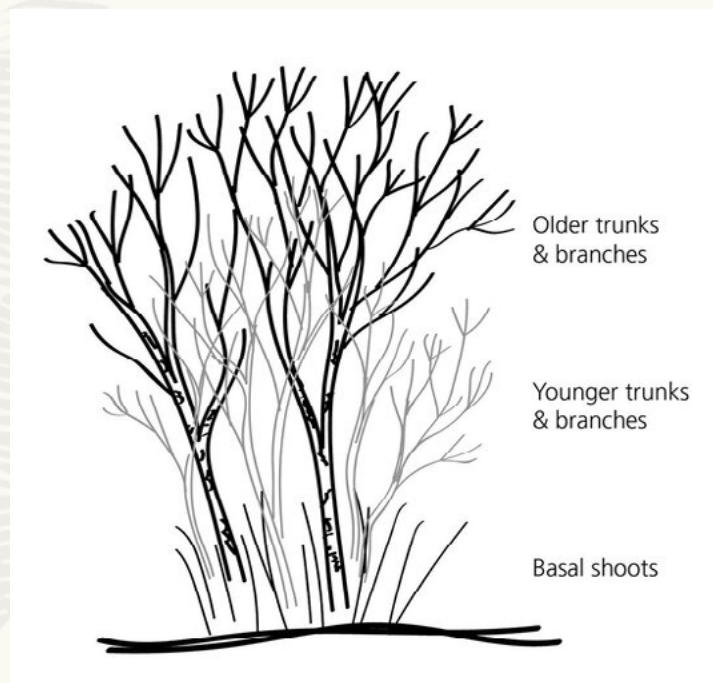


Example of a well-pruned lilac with an open base (Arnold Arboretum).

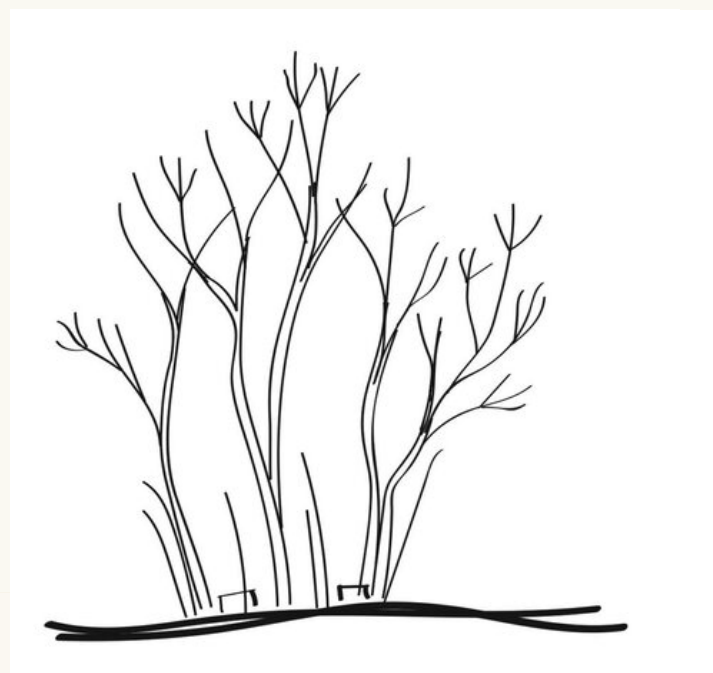
One way to think of cane growers is that canes develop in 'generations'. Each new generation of canes matures and can replace the older canes. Over time, the number of canes increases, which expands the overall diameter at the base. When a cane-growing shrub has been left to grow on its own and become overgrown or unruly in an ornamental garden, rejuvenation pruning is called for.

To rejuvenate a cane-grower, start by removing all of the deadwood. Deadwood removal does not count towards the pruning budget. Prune away the weakest

small root sprouts. Then work your way into the base of the plant. Depending on the density of branches, this may involve dodging branches and crawling on hands and knees to access the interior growth. Remove a few of the largest and oldest canes to the base with a hand saw. Cut them low enough so that a stump is barely visible. The oldest canes are prone to disease and rot, and by removing them you'll stimulate the next generation of canes.



Lilac plant prior to pruning (Swanson Nursery).



Lilac plant after removing most root sprouts and the oldest canes (Swanson Nursery).



LEFT: Overgrown quince at John Muir National Historic Site (NPS). RIGHT: Base of quince after removing one third of oldest canes (NPS).

Next, selectively remove exterior canes that droop to the ground and crossing canes that are growing towards the middle of the plant. Periodically, take a step back and look at the plant. Ask yourself: Does it look healthier and refreshed, or still unruly and dense? Continue to remove older canes until the plant reaches the desired openness. To create a more refined character, reduce the length of unruly exterior canes by pruning to an outer side branch or bud. In some cases, very dense overgrown shrubs that are sensitive to heavy pruning should be pruned lightly over several years to achieve the desired thinning effect without destabilizing the shrub. Other more vigorous cane growers can withstand removal of more than one-third of the canes.

After rejuvenation pruning, lighter annual pruning will keep a cane-growing shrub in a healthy and refined form. Annual pruning should consist of removing most root sprouts (keeping the most vigorous that will develop into new canes), minor removal of crossing branches, and some shaping from the exterior. The oldest, most unhealthy canes can be removed every few years to gently open the interior of the plant.

Cane-growing shrubs are great candidates for beginning pruners to refine their technique as their vigor makes them more forgiving to mistakes. A small

amount of time can yield large aesthetic results. If you're unsure of the species' vigor but remove no more than one third of live branches in a growing season, you can wield your pruning saw with confidence.

For more information see: [Preservation Matters: Landscape Maintenance - Rejuvenating Historic Deciduous Shrubs.](#)

Tool of the Moment: Mini Handheld, Battery-Powered Chainsaw

If your grounds maintenance activities include any type of recurring pruning, consider purchasing a compact, battery-powered chainsaw. This type of chainsaw is great for high volume work on cuts ranging from 1" to 4" in diameter.



TOP: Close-up of mini handheld chainsaw (NPS). BOTTOM: Mini chainsaw holster (NPS).

Jesse Musser, Maintenance Supervisor; Nick Shollenberger, Laborer; and Lee Holt, Certified Climbing Arborist at Valley Forge NHP and Hopewell Furnace NHS recently put the Stihl GTA 26 to the test and shared their feedback with us. Check out this [short video from park staff demonstrating the chainsaw](#).

Pros:

- » This is a great tool for pruning. It's lightweight, compact, very portable, has an ergonomic grip, and an optional holster.
- » With a short bar and light weight, precise, clean cuts are made with ease, making this an excellent tool for working in large, dense fruit tree canopies.
- » Cuts through dead and live wood up to 4" with ease.
- » Excellent battery performance when limiting cut size to 1"-2" diameter material.
- » Removable bar and chain for user-friendly maintenance.
- » Easy trigger start.

Cons:

- » The chain can skip off the bar if used too aggressively.
- » The cover over the bar and chain can become filled with debris quickly, dislodging the chain and causing it to seize.
- » There is no auto-oiler, so bar oil needs to be applied, frequently.
- » The tool does not rest very well in the holster and can fall out while climbing without an extra strap to keep it in place.
- » There is no chain tensioner or adjustment.
- » Cuts greater than 2" in diameter causes decreased battery performance.
- » Chainsaw safety certification is required for use.

The park also owns a mini handheld, battery-powered shear (Stihl HSA 26) which comes with two attachments for ornamental grasses and hedges. Both tools are affordable: the chainsaw costs \$139 and the shear costs \$99. Accessories and additional batteries are available. If you have questions, please reach out to Jesse Musser (jesse_musser@nps.gov), Nick Shollenberger (nicholas_shollenberger@nps.gov), or Lee Holt (lee_holt@nps.gov).

Employee Spotlight



NPS Gardener Work Lead Dovie Cagle (right) teaches a young volunteer about applying mulch to plant beds at Gateway Arch National Park (NPS).

Name: Dovie Cagle

Position: Gardener Work Lead, FMSS Specialist

Park: Gateway Arch National Park (JEFF)

Years with NPS? 13

What is your background?

My background is in Grounds maintenance. I have worked in the field most of my 13 years with the National Park Service as well as other government agencies. I started my NPS career in 2010 as a seasonal Pathway employee at Gateway Arch National Park. I had just graduated from high school. During that time, I had the opportunity to work with other divisions such as Building and Utilities, and Administration. In 2015, I received my first permanent position with NPS at Statue of Liberty National Monument – Ellis Island as a Laborer. There I was able to start to build my career. After a few snowstorms and 1.5 years later, I decided to move on and accepted a position with Veterans Affairs as a Cemetery Caretaker at Camp Butler National Cemetery in Springfield, Illinois. It was an honor and a privilege to work there. I took great pride in the work I did for the veterans and their families. In 2019, I came back to the NPS as a Gardener at Gateway Arch National Park. I had made a full circle back to my home park! Sometime later I became Gardener Work Lead and started to really develop my leadership style. I have graduated from programs such as: Aspiring Leadership Development Program, 21st Century Leadership, Arborist Training Program, and Goal Academy.

What is your favorite part of your job?

I love to teach. So, one of my favorite things about my job is working with the seasonal staff and new employees. There is one goal I try to obtain each year and that is if each seasonal learns at least one new thing, then I have succeeded. One of the things I love to teach is heavy equipment operation. During my time at the cemetery, I developed a lot of equipment knowledge that I love to share.

What project are you working on?

Currently, I'm in transition. I recently accepted a new position within my park as the FMSS Specialist. So, I am in the process of reorganizing and planning.

What was your favorite experience in the park?

My favorite experience in the park has been all the volunteer groups I have been lucky enough to participate in. Being able to give that enjoyable park experience and able to teach skills, knowledge, and the National Park Service mission to future parkies.



Dovie Cagle (right) teaches an NPS employee how to operate the Ventrac tractor's aerator and overseeder in the Gateway Arch National Park native meadow area (NPS).

Video Corner

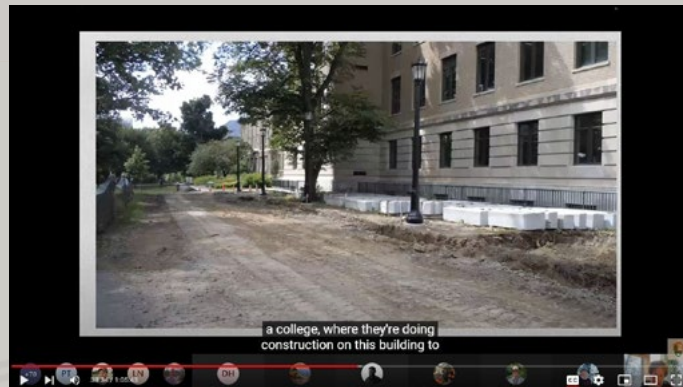
Protecting Trees During Construction

Earlier this January, the Park Cultural Landscapes Program held a two-part webinar series to expand NPS knowledge on how to protect trees during construction.

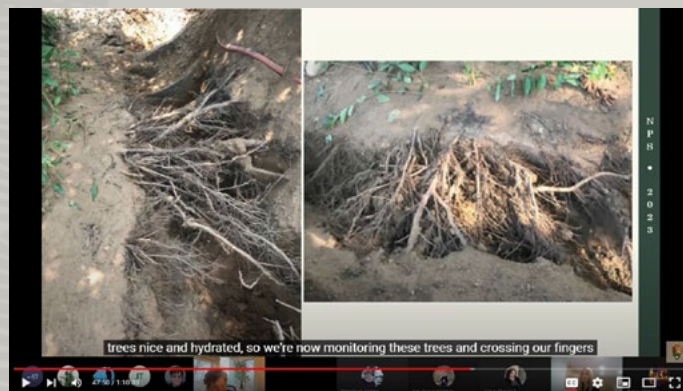
On January 12, 2023, Dr. Nina Bassuk, Emeritus Professor at Cornell University Urban Horticulture Institute and co-author of *Trees in the Urban Landscape*, presented research-based best practices for protecting trees and soil during construction.

On January 19, 2023, NPS Landscape Architects from the Denver Service Center (DSC) and the Historic Architecture, Conservation, and Engineering Center (HACE) presented examples of project best practices along with a question and answer session.

Both recordings are available through the Park Cultural Landscapes Program YouTube channel.



Protecting Trees and Soil During Construction (Video)



Protecting Trees During Construction - NPS Examples and Q & A (Video)

Training Opportunities

2022-23 Heritage Orchard Conference Webinar Series

University of Idaho, [online registration](#), no cost

Structural Pruning

Western Chapter ISA, [in-person](#), Sacramento, CA, Jan. 27, 8AM-4PM PT, cost varies (\$70-\$190)

Turf and Ornamentals School

PennState Extension, [in-person](#), Grantville, PA, Jan. 30, 8AM-3:15PM ET, \$110

Chainsaw Safety Presentation

Georgia Arborist Association, [live webinar](#), Mar. 14, 6:15PM-7:30PM ET, \$20

NPS Operational Leadership Refresher: Live Virtual Sessions

Open to employees, volunteers, interns, and partners. Participants should have previously attended Operational Leadership basic course.

NPS/DOI Talent, [live webinar](#), Feb. 21, 1PM-3PM ET; Mar. 27, 2PM-4PM ET, no cost

National Preservation Institute Training Calendar

NPI, [online, in-person or customized training](#), cost varies

Supervising Youth Training

This training will help participants explore the balance between youth development and employment expectations for the youth they supervise. This training is for anyone who supervises youth (interns, volunteers, partners, etc.). Presented by Historic Preservation Training Center (HPTC) with Health Resources in Action (HRiA). NPS/DOI Talent, [virtual](#), Feb. 8 & 9, 1PM-4PM ET or March 8 & 9, 10AM-1PM ET, no cost

Skillsoft Environmental, Health, and Safety Courses

Courses available in DOI Talent. Various topics including hand and power tool safety, job hazard analysis, fall protection impact, health and safety topics. Short in duration. Licenses available to NPS employees. Skillsoft via DOI Talent, [self-paced](#)