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2021

Arboretum Annual Report, 2021

Miles Schwartz Sax

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CONNECTICUT COLLEGE

ARBORETUM

ANNUAL REPORT 2021

MISSION

The Connecticut College Arboretum is owned by Connecticut College and operated for the benefit of the College and the community. The Arboretum functions in support of the College's mission by helping to prepare people for a lifetime of learning about and interacting with the natural world. The mission of the Connecticut College Arboretum is:

TEACHING — To provide outdoor teaching, laboratory, and performance space for use by faculty and students in all college departments and programs. In both teaching and research, the Arboretum is a unique and valuable academic resource and support facility.

RESEARCH — To support and conduct research in a broad range of subjects, including ecology, field biology, geology, conservation, archeology, cultural and natural history, land management and others. Arboretum research emphasizes long-term studies.

CONSERVATION — To provide stewardship of College lands by protecting, sustaining and enhancing biological diversity of natural areas and other large tracts of open space. The Arboretum also provides leadership statewide and beyond in conservation matters.

COLLECTIONS — To maintain, develop and interpret well-documented plant collections for teaching, research, public and professional education and enjoyment.

STEWARDSHIP OF CULTURAL RESOURCES — To provide stewardship of cultural resources on College lands by protecting, studying, and interpreting archaeological and heritage sites.

PUBLIC EDUCATION — To provide programs and publications about conservation, horticulture, gardening, botany and natural history that enhance people's understanding of the natural world and foster an understanding of the Arboretum's mission.

RECREATION — To provide a place where people from the College and the community may enjoy passive recreation and where they may come to learn, reflect and renew themselves through contact with the natural world. The Arboretum enhances the quality of life both for the constituents of the College and the citizens of southeastern Connecticut.

Updated 2015

MESSAGE *from the* DIRECTOR

DEAR FRIENDS,

The Arboretum continues to be an invaluable space for members of the community to connect with nature, friends and family in a restorative environment. Throughout the past two years, in particular, our trails, landscapes and vistas have been a sanctuary for people to safely be together and appreciate the flora and fauna that occupy the Arboretum's conserved lands. As we reflect on last year, we want to take this opportunity to share with you some developments at Connecticut College Arboretum.

In 2021, the Arboretum was able to begin to return to a level of normalcy in our public programs and educational offerings. Over the course of the growing season, Arboretum staff and volunteers were busy hosting a series of familiar events such as docent led tours, workshops and Music in the Meadow. In collaboration with a local native plant advocacy organization, Wild Ones Mountain Laurel Chapter, we hosted a highly successful native plant sale. Working with partner nurseries, we were able to offer a wide variety of shrubs and perennials that are regionally adapted and promote ecosystem services such as the creation of pollinator habitat.

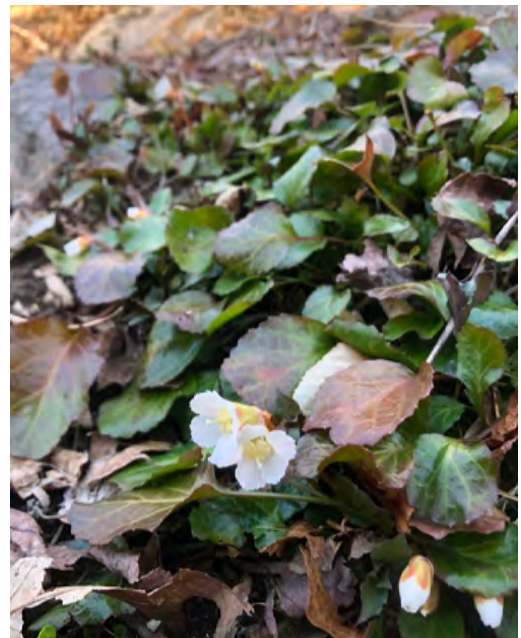
Over the summer, the entrance to the Native Plant Collection was transformed with a raised pedestrian crosswalk and connecting sidewalks from the central campus to the Arboretum. In addition, sidewalks were built that connect New London to Waterford and bike lanes have been designated along Williams Street. This project was made possible through a partnership with the City of New London and CT DOT with the goal of increasing pedestrian access to the Arboretum and enhancing public safety. This is the first of a series of landscape development projects that are currently in the planning phase. We look forward to sharing these with you as the Arboretum continues to grow.

The Arboretum staff is grateful for your support of our landscapes, programs and publications. If you are interested in contributing to the Arboretum and our mission, please consider becoming a member and making a donation. We hope you find many opportunities to visit the Arboretum throughout the year and look forward to seeing you in the landscape.

Sincerely,



Miles Schwartz Sax, Ph.D.
Charles and Sarah P. Becker '27 Director



OCONEE BELLS (*SHORTIA GALACIFOLIA*) IN THE EDGERTON AND STENDEL WILDFLOWER GARDEN

The ARBORETUM

The Arboretum, established in 1931, is a signature feature of Connecticut College. Today it encompasses 750 acres, includes the 115-acre Campus Landscape, 30-acre Native Plant Collection, three acre Caroline Black Garden, a teaching and display greenhouse facility, and numerous natural environments including a bog, restored meadows, oak/hickory forests, a wooded island in the Thames River, and a salt marsh. The Arboretum is integrated into the everyday life of the College, serves as an outdoor classroom for numerous courses, and is the focus of several long-term research programs. In addition to education and research missions, the Arboretum provides stewardship of College lands and leadership on conservation issues locally and statewide. The Arboretum is an integral part of the New London community, offering an extensive array of walking trails for education and recreation, programs for local schoolchildren, public workshops and conferences.

LAND ACKNOWLEDGEMENT

Connecticut College Arboretum honors the Mashantucket Pequot, Western Nehântick, Eastern Pequot, Mohegan, and other tribal nations who are indigenous to Nameaug, now called New London, and the land surrounding Coastal Algonquin, also known as the “Long Island Sound Region.” We appreciate your careful stewardship of the land over many generations and acknowledge the suffering endured by your ancestors through the historical period of settler colonialism. Finally, we express gratitude that your tribal nations remain as neighbors in the region and that we continue developing opportunities for greater connection and partnership.

DIRECTOR MILES
SCHWARTZ SAX
LEADING THE
ARBORETUM STAFF ON
A WALK IN THE NATIVE
PLANT COLLECTION.



CAPITAL CAMPAIGN GOALS

In fall 2021, Connecticut College launched the Defy Boundaries capital campaign looking to raise funds to support the future of the institution. As part of the campaign, the Arboretum is launching our Arboretum Excellence Initiative with the goal of fund raising in three core areas. These fundraising goals are aimed to foster educational opportunities, elevate the horticulture excellence of our landscapes, and support student and staff scholarship. The three core areas include:

ENGAGING STUDENTS IN SUSTAINABLE LAND MANAGEMENT INTERNSHIP

This fund provides annual support or endows an internship program for students to gain experience in the Arboretum with a focus on sustainability and ecological land management. This fund will be used to offer a summer internship for students to live in residence at Connecticut College and gain experience in the Arboretum. Students will develop an understanding of botanic garden management through experiential hands-on learning by working in the plant collections with our professional horticulture staff. The educational experience will be enriched through lectures, tours and walks with Arboretum staff and field trips to regional botanic gardens, natural areas and conserved lands. The internship will also offer specialized training for students interested in the field of public horticulture, museum studies, botany, environmental science and related fields.

SHOWCASING HORTICULTURAL EXCELLENCE

This fund supports the endowment of the Director of Horticulture position. The Director of Horticulture is a new position created in 2021 to oversee the horticultural and ecological land management operations of the Arboretum. The Director of Horticulture is responsible for elevating the care and appearance of campus gardens, greens and botanical collections.

The Director of Horticulture will contribute to sustainability by aligning our work with ecological management practices. They will contribute to education through development of student engagement opportunities such as internships and work study programs. The Director of Horticulture will act as an Arboretum ambassador communicating our sustainability initiatives by giving tours, lectures and talks at outward facing venues. Additionally, they will act as a collaborator developing partnerships with botanic gardens and conservation organizations across the country. Full support of this priority area by a single donor would allow for a naming opportunity.

FOSTERING ECOLOGICAL EDUCATION

This fund would support educational opportunities for Arboretum students, staff, and interns allowing them to engage in learning opportunities beyond the College. Arboretum associates would be able to present or participate in courses, workshops, conferences, classes and accreditation at regional and national venues and partner institutions. This, in turn, would allow associates to gain knowledge in developing fields such as environmental horticulture and ecological land management and apply those learnings directly to Connecticut College Arboretum's mission work. This fund would directly support the Arboretum's education mission and promote a culture of education and learning.

If you are interested in contributing to the any of these funds or discussing how a donation can support the mission of the Arboretum, please reach out to the Arboretum office.



LATE SUMMER PERENNIALS STAND OUT AROUND THE NEW LONDON HALL GREENHOUSE.

LEFT: THREADLEAF IRONWEED (VERNONIA LETTERMANNII 'IRON BUTTERFLY') IS ATTRACTIVE TO BUTTERFLIES AND PRAYING MANTISES.

RIGHT: BUTTERFLY WEED (ASCLEPIAS TUBEROSA) ATTRACTS A RANGE OF INSECTS INCLUDING THE GREAT GOLDEN DIGGER WASP.

TEACHING

ENVIRONMENTAL HORTICULTURE

During fall semester 2021, Arboretum Director Miles Schwartz Sax offered his first course at Connecticut College titled Environmental Horticulture (Botany 240). The course focused on two primary areas. The first being woody plant identification and use. Over the course of the semester, students learned to identify over 130 native and introduced plant species. Plants were broken up into groups based on their site preference (wet sites, dry sites, low pH, high pH, etc.) or family / genus similarity. The second focus on the course was learning how to assess and read the landscape so that students would develop a fundamental understanding of site assessment and how to pick the right plant for the site. Students participated in hands-on labs where they learned how to read the landscape and select plants based on the site's limitations. Students undertook a comprehensive project where they gathered environmental data on a series of landscapes across campus and made recommendations on plant selections that would be well suited for sites. The class was at full capacity and received positive student reviews. It will be offered again in fall 2023.

As a result of the success of the Environmental Horticulture course, the Arboretum is working with the Botany Department to develop more classes that align with the Arboretum staff's expertise. In collaboration with the Arboretum staff, the Botany department is looking to offer two new courses in the coming years. One on Plant Propagation and another on Orchard and Small Fruit Production.

Courses known to have used the Arboretum in 2021:

- ANT 406 Field Methods in an Archaeology of the Arboretum
- ARC 261 Landscape Architecture: Design Studio
- BIO 120I Biological Inquiry
- BIO 210 Ecology and Evolution
- BIO 332 The Ecology of Symbiosis
- BOT 240 Environmental Horticulture
- BOT 290 Community Agriculture
- ES/GEO 120 CC: Living on a Changing Planet
- ES/GEO 202 Earth Surface Processes and Landforms
- FYS 1005 Global Migrants and Refugees
- FYS 1006 Everyone's a Curator
- FYS 1008 Genetic Engineering
- FYS 1010 Wealth and Poverty
- FYS 1024 Lush Life: A Jazz Story
- FYS 1028 Performing Public Health

STUDENTS IN MILES
SCHWARTZ SAX'S
ENVIRONMENTAL
HORTICULTURE
CLASS SPENT MANY
AFTERNOONS
WALKING AROUND THE
ARBORETUM.



AMPHIBIAN DISEASE RESEARCH

Assistant Professor of Biology Taegan McMahon has been conducting surveys of the Arboretum pond and bog for the presence of chytrid fungus *Batrachochytrium dendrobatidis* (Bd). This has been a long-term area of study for Professor McMahon having studied this disease in tropical climates. Now that she is teaching at Connecticut College, she is expanding this research to include New England species and ecosystems. In Taegan's previous studies of the ecology of Bd, she discovered that the fungus is found in freshwater invertebrates along with amphibians. Finding Bd in invertebrates fundamentally changed how people think about this fungus because prior to this discovery, Bd research only focused on amphibians. From a conservation perspective, this was a significant discovery because its intervention strategies have been tailored for amphibians only and ignored other hosts. From her recent surveys of the Arboretum, she has found that many of the invertebrates in our ponds do, in fact, host the Bd fungus potentially posing a risk to native amphibians. In addition to her survey work, Professor McMahon has been working to develop Bd vaccines for amphibians. Currently her vaccine studies have proven successful for one species of amphibian so far, the Cuban treefrog. Amphibians vary in their ability to handle Bd, and so her current work is looking to expand her Bd surveys and vaccine work to include more species, including Connecticut native amphibians. Additionally she is looking to determine the vaccines' effectiveness over various life stages of frogs, such as the tadpole phase, for example. All aspects of the research involve students and have a strong component of education and local conservation.

ONLINE INTERACTIVE TOUR

During the spring semester, Claire Peligrini '21 created an interactive story map of native trees in the Arboretum. Claire was looking for a way to synthesize her botany major, art minor and museum studies certificate in a rewarding senior independent project. Working with the Arboretum staff and resources,



Claire decided to create an interactive tour of native trees for the public. The Native Plant Collection contains over 60 different species of native trees but after reviewing their cultivation requirements, availability in local nurseries, and individual aesthetic beauty, Claire selected 16 trees to highlight. With many Covid limitations in place, it made the most sense to create a virtual tour using ArcGIS Online software to create a story map. The resulting project, "Native Trees of the Connecticut College Arboretum" (<https://arcg.is/1uTSnb>), can be viewed on a desktop computer or on a mobile device in the Arboretum. This new tour offers a great resource for learning about native trees at Connecticut College Arboretum and may inspire new plantings for your garden.

MAMACOKE MARSH MAPPING PROJECT

During the summer of 2020, a study was undertaken to map the vegetation on the Mamacoke salt marsh. The vegetation ecology of Mamacoke has been studied throughout the Arboretum's history with surveys being conducted in 1957, 1975, 1983, 1991, 1997 and 2020. This data allows the Arboretum to quantify changes to the marsh's plant communities over the decades. Student Jason Eklund '21 undertook a senior independent

PROFESSOR TAEGAN MCMAHON AND HER STUDENTS FROM BIO 320- ECOLOGY OF SYMBIOSIS, VISITED THE NATIVE PLANT COLLECTION TO LEARN ABOUT AND PARTAKE IN INVASIVE SPECIES REMOVAL. THEY PULLED SEVERAL BAGS OF JAPANESE STILT GRASS (MICROSTEGIUM VIMINEUM) FROM THE AREA AROUND OUR RESOURCE CENTER.

study during the Fall '20 and Spring '21 semesters with Professor Emeritus Scott Warren and Arboretum Director Miles Schwartz Sax. Jason's study used GIS methods to digitize the vegetation maps of Mamacoke showing shifts in vegetation across a sixty-five year period.

For the first time in the marsh's mapping history, changes in vegetation could be visualized and quantified using computational and statistical methods thanks to the use of Geographic Information System (GIS). The study showed that despite increases in relative sea level rise, vegetation patterns have remained mostly stable over the past 65 years. A notable exception to this trend was of black rush (*Juncus gerardii*), which abruptly disappeared from the Mamacoke marsh between 1997 and 2020. The Arboretum sponsored Jason as a presenter at the New England Estuarine Research Society (NEERS) meeting in April 2021 where he shared his findings from the study. This conference marked his first talk at a professional scientific conference. Thanks goes to Senior Lecturer Beverly Chomaik who helped organize the study and gave guidance to Jason as he worked through the GIS digitization and interpretation. Professor Pete Siver assisted Jason conducting statistical analysis of the marsh data.



TOP, RIGHT: CLAIRE PELIGRINI '21 WITH ONE OF THE TREES IN THE INTERACTIVE NATIVE TREE TOUR SHE DEVELOPED.

BOTTOM: JASON EKLUND '21 (CENTER) RECORDING VEGETATION PATTERNS AT THE MAMACOKE SALT MARSH.



PLANT COLLECTIONS

CONNECTICUT COLLEGE

ARBORETUM IS COMPRISED of a diversity of collections from conserved natural areas to a core collection of cultivated landscapes. The core collections include the Caroline Black Garden (3 acres), the Native Plant Collection (30 acres) and the Campus Landscape (115 acres). In addition to these cultivated landscapes, the Arboretum is responsible for managing six hundred acres of conserved land that includes a diversity of habitats such as forests, prairies, wetlands, bogs and salt marshes. These lands radiate out from the main campus adding diversity and complexity to our ecosystem. This combination of cultivated and conserved land allows us to focus our collections on conservation, habitat preservation and maintenance of open spaces. Each year we work to maintain this diverse set of landscapes to control invasive plant migration, maintain ecosystem services and expand the floristic diversity of the collections. These collections are what distinguish us as a botanical institution and their safeguarding and expansion is central to the mission of the Arboretum.



WILLIAMS STREET ENTRANCE

Those who have visited the Native Plant Collection this fall or winter will have noticed some improvements that have occurred at the Arboretum's entrance. Over the summer, a new raised pedestrian crosswalk was built connecting the College's central campus to the Arboretum. This crosswalk provides a safe means of passage to cross Williams Street and connects to newly constructed sidewalks that now run from the Waterford town line down to the Chapel entrance. Bike lanes were also added along Williams Street providing a safer experience for bicyclists wishing to access the Arboretum and College from downtown New London. Aside from the changes in the physical infrastructure, a new planting was designed by curator Mary Villa at the College's Chapel entrance. The planting includes shrubs and perennials with fall and winter seasonal interest including inkberry (*Ilex glabra* 'Shamrock'), bluestar (*Amsonia* 'Blue Ice'), New York aster (*Aster novi-belgii* 'Woods Blue'), fothergilla (*Fothergilla x intermedia* 'Mount Airy') and winterberry (*Ilex verticillata* including cultivars 'Winter Red' and 'Apollo'). This project was made possible through a partnership with the City of New London and CT DOT with the goal of increasing pedestrian access to the Arboretum and enhancing public safety.

ABOVE: THE NEW RAISED CROSSWALK ON WILLIAMS STREET CONNECTING CAMPUS TO THE NATIVE PLANT COLLECTION.

LEFT: THE FRAGRANT YELLOW BLOSSOMS OF WINTERSWEET (*CHIMONANTHUS PRAECOX*) BLOOM IN LATE WINTER. THE DELICIOUSLY SCENTED FLOWERS ADD FRAGRANCE AND BEAUTY TO THE LANDSCAPE WHEN MOST OTHER PLANTS ARE DORMANT. THESE PLANTS ARE NATIVE TO THE FORESTED AREAS OF CHINA BUT YOU CAN FIND TWO SMALL SHRUBS ON THE SOUTH SIDE OF THE NEW LONDON HALL GREENHOUSE.

EXPERIMENTAL INVASIVE PLANT MANAGEMENT WITH GOATS

In early summer 2021, the Arboretum undertook an experimental invasive plant management strategy utilizing a herd of goats to manage knotweed on hillsides at the Athletic Center. The Rhode Island based company, Herd of Hope, deployed a team of goats to graze the vegetation on the steep slopes of the site. The project was developed by student Shefka Williams '21 as part of her senior integrative project who worked with Assistant Professor Eric Vukicevich to create the management plan. Goat grazing offered benefits on this site because the steep hillside is not suited for mechanical means of control and offered an alternative to pesticide application. The goats offered a case study in use of grazing as a vegetation management strategy. The results of this study are being assessed as we head into the 2022 growing season. Multiple years of grazing will likely be required to accomplish large-scale control of the site and will be considered as an ongoing management strategy.

GIS MAPPING OF THE WILDFLOWER GARDEN

From spring into summer, Senior Lecturer Beverly Chomiak and retired botanist John Vitti undertook a highly detailed study of the Wildflower Garden using GIS and field

observations methods. The Wildflower Garden is divided into seventeen distinct zones, each with a diversity of spring ephemerals, ferns and perennials. Due to the nature of wildflowers, many of these species can migrate from bed to bed over the years, seeding in as they find micro niches in the landscape. This makes mapping these species difficult and reviews of the garden are needed annually to determine species composition within individual zones of the garden. Beverly and John were able to create the most highly detailed maps of the Wildflower Garden that have ever been produced by using GIS and inclusion of fine details like positions of individual stones in the landscape. The stones in the Wildflower Garden give this landscape much of its character and plantings are interspersed around them. Over the course of the growing season, John diligently recorded the physiological progress of the wildflowers as they transitioned from starting to bloom, to peak, to fading and as fruits were observed in each of the garden zones. This resulted in observation of nearly 80 species of wildflowers, including three species not previously noted in the collection as well as 14 fern taxa. This dataset provides the most detailed look of the Wildflower Garden ever conducted and will be useful to monitor species diversity, changes in population dynamics and planning for garden expansion.



GOATS EATING THE INVASIVE KNOTWEED (FALLOPIA JAPONICA) ON THE STEEP HILLSIDE NEAR THE ATHLETIC CENTER.

STEWARDSHIP *of* CULTURAL RESOURCES

FIELD METHODS IN ARCHAEOLOGY

In fall 2021, Associate Professor of Anthropology Anthony Graesch offered his Field Methods in Archaeology of the Arboretum (ANT 406). Students in this class use the Arboretum to learn archaeology techniques and reconstruct its history. Students in the class conducted an archaeological surface survey and limited subsurface testing in the east-northeast field of the Katharine Matthies Tract (Tract 7).

Investigations were designed to explore previously cast hypotheses set forth by Connecticut College Professor Harold Juli in 1992. Juli hypothesized that the Arboretum had a substantial pre-colonial history dating back to as early as the Late Archaic (3950–1950 BP) and as recent as the Late Woodland (950–1450 BP). Training students in archeological methods and research techniques supports a multiyear project focused on the comprehensive inventorying and stewardship of archaeological and other cultural resources residing in Arboretum-encompassed spaces. This research helps the Arboretum develop an understanding of land use history over thousands of years and informs conservation and land management strategies going into the future.

OLMSTED IN CONNECTICUT DOCUMENTATION PROJECT

We were honored to host Liz Sargent '84 on a visit to the Connecticut College campus in September 2021. Liz was a botany and history double major. She later studied landscape architecture and has been practicing since 1991 with a focus on historic preservation. Liz is part of a team working on a statewide survey of Olmsted firm projects in Connecticut in anticipation of the 200th birthday of Frederick Law Olmsted – author, journalist, public official, urban planner and father of American landscape architecture. In addition to surveying 150 projects, they will be developing a historic context regarding the firm's work and how growing up in the Hartford area influenced Frederick Law

Olmsted's design ethic and aesthetic. They will also explore how the projects completed in Connecticut are representative of various design principles espoused by the firm. They are reviewing the drawings, historic photographs and other communications created by the firm and visiting the sites to evaluate the conditions of extant features. The Olmsted Brothers worked on three projects at Connecticut College: a conceptual plan for campus (1913), the Williams Street entrance to campus (1924), and grading plans for Knowlton House.



TOP: STUDENTS IN FIELD METHODS IN ARCHAEOLOGY TAKING SOIL SAMPLES IN THE LITTLE BLUESTEM MEADOW NORTH OF BENHAM AVENUE (KATHARINE MATTHIES TRACT).

BOTTOM: LIZ SARGENT '84 AND ASSOCIATE DIRECTOR MAGGIE REDFERN DOCUMENTED THE EXISTING FEATURES FROM THE OLMSTED FIRM DESIGNS FOR CAMPUS.

PUBLIC EDUCATION & OUTREACH

In 2021, the Arboretum welcomed the community back into the landscape by offering a series of events and educational opportunities both in person and online.

IN PERSON EVENTS focused on those that could be run entirely outdoors and included the return of guided tours of the Native Plant Collection and Caroline Black Garden from May through November. These tours offer community members the opportunity to learn about the Arboretum from our volunteer tour docents who share information on the landscape's natural history and plant collections. During the month of October, we also offered several specialty tours: Mary Villa led Native Oak Identification and Maggie Redfern led a Full Moon Walk and Downtown New London Tree Walk.

Music in the Meadow returned in June offering an outdoor music experience to members of the community. Three bands graced the stage of the outdoor theater including The Bargain, The Rivergods and Lizdelise. The Rivergods featured a cameo appearance from Butch Rovon on the saxophone. Connecticut College alumni Elizabeth deLise '13 headlined with her band Lizdelise bringing an experimental avant-garde sound to the Arboretum.

The Arboretum hosted a Native Plant Sale in partnership with the Wild Ones Mountain Laurel (Connecticut) Chapter. During Covid, many popular plant sales pivoted to a hybrid model and we were inspired to offer a wide selection of native perennials, grasses and shrubs. We created an online order form with 25 species of Ecotype Project perennials grown by Planters Choice and eight species of shrubs from Prides Corner. Pre-orders were placed online during July and picked up on a beautiful Saturday in September at the 33 Gallows Lane parking lot. We had a team of twenty volunteers who helped organize the orders so that our drive-thru pick-up system could run smoothly. We also had a few dozen plants of various species and sizes grown by Arboretum staff and Wild Ones members available for cash sales. By introducing the online ordering system, we eliminated the challenges of finding homes for unpurchased plants. In total, we had over 150 pre-orders and distributed more than 5,000 native plants to our community. It was a successful fundraiser for both organizations and we look forward to doing it again in 2022.

LEFT: A VOLUNTEER SHARES THE BENEFITS OF GROWING NATIVE PLANTS AT OUR NATIVE PLANT SALE IN THE FALL.

RIGHT: GRACE NEALE '22 WITH AN ARRANGEMENT SHE MADE AT THE WREATH MAKING WORKSHOP.



A SERIES OF THE ARBORETUM'S EDUCATIONAL EVENTS were offered in a remote format. Running these programs virtually had the dual benefit of being able to offer our educational programs to a broader audience than may have been able to attend in person while also maintaining a Covid safe environment.

Our annual ecological landscape conference hosted in partnership with New Directions in the American Landscape and the Morris Arboretum was held virtually over the course of four interactive half days in January 2021 with the theme “Guiding Theory into Reality: It Don’t Mean a Thing if the Landscape Don’t Sing.” The four modules included topics in Planting and Management; Ecological Analysis to Plant Landscape to Architecture; Embracing Cultures in Landscape Design; and Where Ecology Meets Art. The conference featured notable speakers including Piet Oudolf who offered his unique perspective on how ecological principles translate to artistic garden design that age gracefully over time. With the success of the online conference, this format will be explored for future conferences as Covid continues to make in person gatherings of significant size difficult to organize.

In February 2021, the Arboretum hosted a film viewing and panel discussion for the movie “Borderland: The Life & Times of Blanche Ames Ames.” The film discussed the life of Blanche Ames who was an activist in the women’s suffrage movement and a polymath excelling as an artist, architect and inventor. Blanche is known in the garden community as a botanical illustrator with a particular focus on orchids. Blanche Ames shares a connection to Connecticut College with her grandson, Oaks Ames, having served as the President from 1974 until 1988. The panel discussion included contributions from members of the Connecticut College community including Karen Gonzalez Rice (Associate Professor of Art History), Jenifer Ishee (Linda Lear Special Collections Librarian) and Ari Rotramel (Vandana Shiva Associate Professor of Gender, Sexuality and Intersectionality Studies). The panel discussion examined Blanche’s life from a series of angles including her work as a botanical illustrator, an activist, a suffragette and a feminist leader. In addition to the film,



ALAN SAX AND MILES SCHWARTZ SAX AT THE CEREMONIAL PLANTING OF A 'BLANCHE AMES' CRAPAPPLE AT BORDERLAND STATE PARK IN OCTOBER 2020. THE PROPERTY IN EASTON, MASSACHUSETTS WAS FORMERLY THE HOME OF BLANCHE AND OAKES AMES.

the Arboretum is planning on planting a ‘Blanche Ames’ crabapple on the campus landscape. This cultivar was developed by Arnold Arboretum plant breeder Karl Sax who was a contemporary of Blanche and is great grandfather of Arboretum Director, Miles Schwartz Sax. A project to propagate and disperse Blanche Ames crabapples has been underway by Alan Sax (Karl Sax’s grandson) to introduce these cultivars to landscapes associated with Blanche Ames including her Alma mater (Smith College), her former estate turned state park (Borderlands) and Connecticut College Arboretum.

In November 2021, the Arboretum had a return of our Smaller American Lawns Today (SALT) Conference. This conference is geared towards Arboretum members, homeowners, horticulturists, and gardeners in the local community. The theme for the conference was “Awaken a New Perspective on the Watershed” and featured presentations on The Role of Riparian Buffers in the watershed; Managing Critical Habitats at the Niering Natural Area Preserve; and Beyond Pollinator-Friendly: Designing Landscapes and Corridors to Support Regional Biodiversity. The conference was offered as a lunchtime lecture series over three successive Wednesdays in a virtual format.

The ARBORETUM COMMUNITY

ARBORETUM STAFF UPDATES

The year 2021 brought a number of exciting developments and changes to the Arboretum. This was the first full year that campus landscape management was overseen by the Arboretum's Horticulture unit. The staff focused on team building and developing enhanced landscape management using horticultural best management practices. The Arboretum has welcomed three new team members each with applied backgrounds in landscape management, horticulture training and public garden experience. As the Arboretum continues to develop, we look forward to sharing the many new landscape projects and educational opportunities with you.

The Arboretum is excited to welcome Brian Gibbons onto our staff as the first Director of Horticulture. The Director of Horticulture is a new position that unifies and oversees all horticultural and natural areas management across 750 acres of the Arboretum, including the campus landscape. Brian joins us from Holden Forests and Gardens where he was the Director of Gardens and Glasshouse on the Cleveland Botanic Garden Campus. Prior to working in Cleveland, Brian had extensive garden experience having worked at Windy Hill Farms in Western Massachusetts and as a Visiting Horticulturist at Hillier Gardens in the UK. Brian's undergraduate studies include a Horticultural Science degree from University of Georgia where he served as a teaching assistant for notable horticulturist and woody plant expert Michael Dirr. Brian brings a wealth of knowledge on landscape management, team leadership and a deep passion for woody plants. In addition to his horticultural background, Brian also is experienced as a small business owner having co-founded Berkshire Organics Market with his wife. Berkshire Organics was a market and food delivery service focused on local, organic non-GMO farm to table products.

GROUNDSPERSONS
KRAIG CLARK AND NICK
MCCARTHY CLEARING
LEAVES IN THE FALL.

Nick McCarthy joined the Arboretum Horticulture team in March. He joins having worked six seasons at Harkness Memorial State Park on the landscape team. At Harkness, Nick honed his horticultural and leadership skills and held various roles from Historical Gardener to Seasonal Manager. Nick brings a strong passion for horticulture and education, which has been displayed by his recent certification as a Connecticut Accredited Nursery Professional through the CT Nursery and Landscape Association. We welcome Nick to the team and look forward to seeing how the landscape evolves under his horticultural care.

The Arboretum welcomes Madison Holland as the newest member of the Horticulture team. Madison joins us after most recently working as a landscape designer at Water Street Design Associates. She has previous experience having worked at Kinney Azalea Gardens in South Kingston, Rhode Island, where she served as Garden Supervisor. Madison holds a Bachelor of Landscape Architecture from University



of Rhode Island. During her studies, one of the ways she honed her horticultural skills was by supporting Professor Mark Brand as undergraduate teaching assistant in his Woody Landscape Plants class and through practical hands on experience. Madison will primarily be working in the Native Plant Collection with a particular focus on the Azalea collection and Wildflower gardens.

This past year also marked the departure of Horticulturist Leigh Knuttel who retired after serving the Arboretum for thirteen years. Leigh served as the manager for the Arboretum's horticulture team bringing leadership to the department that resulted in enhanced care of the Native Plant Collection, Caroline Black Garden and greenhouse. Leigh worked closely with student workers and acted as mentor guiding their botanical education and development. Along with Leigh's horticulture prowess, she also excelled as a teacher offering workshops and tours for the Arboretum's public education program. Leigh's leadership and horticultural skills will be missed by the Arboretum. We wish her well on her retirement and know that her home garden will flourish.



TOP: GROUNDSKEEPER TOM NAZARKO USING AN AIR SPADE TO EXCAVATE SUGAR MAPLE ROOTS IN PREPARATION FOR THE COLLEGE'S FIRST INSTALLATION OF STRUCTURAL SOIL AND A NEW SIDEWALK. STRUCTURAL SOIL IS A COMPACTABLE SUB-GRADE THAT ALLOWS TREE ROOTS TO GROW THROUGH IT.

BOTTOM: SENIOR GROUNDSKEEPER JOE SERWINSKI CONDUCTING FALL MAINTENANCE WITH A NEW LEAF VACUUM ON CAMPUS.



TOP: ARBORETUM DOCENTS IN THE CAROLINE BLACK GARDEN DURING A SPRING REFRESHER TOUR. THE DOCENTS ARE STANDING BETWEEN TWO NEW SWISS STONE PINES (PINUS CEMBRA) WHICH WERE PLANTED TO REPLACE TWO DWARF ALBERTA SPRUCE (PICEA GLAUCA 'CONICA').

BOTTOM: ARBO PROJECT COORDINATOR KATIE WARREN '22 LEADING A TOUR FOR CONN'S CHILD DEVELOPMENT LAB SCHOOL IN THE NATIVE PLANT COLLECTION.



ARBO PROJECT

Students from Connecticut College lead environmental education tours for K-12 students in the Arboretum. To find out more or schedule a tour, email arbor@conncoll.edu.

DOCENTS & VOLUNTEERS

- Tracy Burrell
- Joan Flynn
- Allen Gauthier
- Trish Helm
- Sean Kane '87
- Mark Kronenberg
- Susan Munger
- Lydia Pan
- Kathryn Williams
- Pam Wright
- John Vitti

STUDENT EMPLOYEES

SPRING 2021

- Alexis Flores '22
- Elise Graves '23
- Ellie Hollo '23
- Danso Kuzoe-Jones '22
- Patrick O'Reilly '22
- Tori Plaskon '23
- Liam Rimas '23
- David Saturno '23
- Jake Upton '22
- Roy Walton '21
- Alaine Zhang '23

SUMMER 2021

- Alazar Kebede '22
- Alaine Zhang '23

FALL 2021

- Adriana Cretu '23
- Olivia Davidson '25
- Brody Fazio '25
- Alexis Flores '22
- Sam Fuss '23
- David Garcia Moreno '25
- Zack Garvin '22
- Elise Graves '23
- Ellie Hollo '23
- Skyler Kardell '25
- Danso Kuzoe-Jones '22
- Patrick O'Reilly '22
- Liam Rimas '23
- Jake Upton '22
- Katie Warren '22
- Alaine Zhang '23

ENDOWED FUNDS

The Arboretum would like to acknowledge those who have created endowments for the ongoing support of our mission. These funds show the highest form of commitment to the Arboretum.

Doris Edgerton Abel Memorial Wildflower Garden Fund

Charles and Sarah P. Becker '27 Arboretum Director Fund

Bolleswood Natural Area Fund

Gertrude Brown Memorial Fund

Mr. and Mrs. Nelson L. Buck Arboretum Fund

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Lucy Holcombe '46 Arboretum Fund

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A. Clayton Scribner Arboretum Library Fund

John Stengel Wildlife Preserve Fund

Sally and Roy Taylor Arboretum Endowed Fund

B. Thomson Arboretum Fund

Betty Walther Memorial Fund

Ann C. Wheeler '34 Endowed Arboretum Fund

SARA BRADFORD '63 ARBORETUM STEWARDSHIP FUND

The Connecticut College Arboretum would like to extend a very special thanks to Sara Bradford for her generous contribution to the Arboretum and the endowment of the Arboretum Stewardship Fund. This endowment will create in perpetuity a fund that will support landscape management projects in the Arboretum's Native Plant Collection and Caroline Black Garden.

This will allow the Arboretum to continue to develop new horticultural landscapes that support ecosystem services and welcome guests into the gardens. Sara has a long history of involvement with the Arboretum having graduated in 1963 as a botany major. As a student, she was involved in an Arboretum internship where she assisted with the Arboretum's Bolleswood vegetation study that has been conducted every decade since 1952. In her professional capacity, Sara is a landscape architect with 30 years of experience and runs a successful practice in the Providence, Rhode Island area. She has contributed to the Arboretum as one of the initial designers of the Gries Conifer Collection and as a member of the Advisory Committee. The Arboretum is honored by Sara's gift and we look forward to collections enhancement it will enable.

FLOWERS OF THE
DOVE TREE (DAVIDIA
INVOLUCRATA)
BLOOMING IN THE
MARJORIE HOLLOWAY
MEMORIAL GARDEN.





THE DISC CLUBS
GATHERED IN MAY
ON CHAPEL GREEN
TO REMEMBER HANS
HORST-MARTZ '21. A
NORTHERN PIN OAK
WAS PLANTED IN HIS
MEMORY ADJACENT
TO THE FIELD WHERE
HIS ULTIMATE TEAM
PRACTICES.

MEMBERS

The Arboretum gratefully acknowledges individuals who donated to the Arboretum and became members. Your support allows the Arboretum to grow and fulfill our mission. The Arboretum strives for accuracy of our records. If any of your information is incorrect, please reach out to our office so we can amend the records.

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Linda '69 and John Fosseen
Claudia D. Redfern
Urban Forestry Organization

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Marion C. Kimball
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Katherine D. Winslow '80

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 Kathleen T. Hunter
 Catherine Beyer Hurst
 Timothy Jackson
 Eric Javor
 Sarah and Richard Jaynes

CHILDREN AT THE
 NEW LONDON COUNTY
 HISTORICAL SOCIETY'S
 NATURAL HISTORY
 CHILDREN'S CAMP
 LEARNED ABOUT MANY
 OF THE UNUSUAL AND
 EDIBLE PLANTS AT
 THE SHAW MANSION
 IN DOWNTOWN NEW
 LONDON.

Jean Jerbert
 Christine M. Johnson
 Robert C. Julier
 David Julier
 Susan Kelly
 Leigh Knuttel
 Karen Krohn and John Pendergast
 Bernadette Kunkemoeller
 Uma Kuruganti
 Barbara Lahr '71 and Jack F. Mullen
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 Paul D. Lantz '75
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 Christina Moore
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 Benjamin Panciera
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 Ruth Parnall '98 and Donald Walker
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 Brian Pistolese
 Eric T. Plapper '08
 Robert Plecs
 Rebecca H. Post '63
 Kathleen Powers
 Judith C. Preston
 Ruth G. Radin '60
 Maggie Redfern
 Helen B. Regan
 Richard C. Ricci and Fawn Walker
 Michael F. Riggio
 Emily Marie Noble Rogers '11
 Robert Roggeveen
 Sarah Rogovin and Mark Twiss
 Peter and Terri Roper
 James and Deborah Russel '67
 Sarah Ryan

CONN'S WOMEN'S
 AND MEN'S ROWING
 TEAMS PARTICIPATED
 IN INTERNATIONAL
 COASTAL CLEANUP DAY
 BY PICKING UP TRASH
 ALONG THE COLLEGE'S
 WATERFRONT.



Thomas and Ann Ryder
Marlene and Mark Santucci
Edward Sax
Victoria Sax
Starr and Phil Sayres
Amey Schenck Bailey '86
Roberta Schwane
Susan Schwartz and Alan Sax
Susan Schwartz and Andrew Lynn
Miles Schwartz Sax and Briana Amoroso
Marian R Shilstone '80
Alida Slosberg
Adele M. Smith '52
Kevin T. Smith '76
Katherine Soderberg
William Southwick
Steve Spillane
Tony Spinelli
Lynda Stein
Julie Steyaert
Susan Styer
Betsy Swann
Sally L. Taylor
Andrea G. Thackeray '84
Charles Tillery and Mary Villa
Martha McLaud Tonucci
Lucy M. Tuchman '19
Martha B. Twigg
Elizabeth Twitchell '85
Elizabeth Van
Jinny Van Doorn
JoEllen Vasbinder

David Walther
Roy Walton '21
Eileen and Donald Welsh
Joella Werlin '59
Wendy and Jeffrey Westerlund '83
Joan H. Wiles
Barbara P. Williams '62
Susan Wolff '54
G. Thomas Couser and Barbara Zabel

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Deep River Garden Club
ExxonMobil
Friends of Harkness Memorial Park, Inc.
Glastonbury Garden Club
Ledyard Garden Club
Leetes Island Garden Club
Longwood Gardens Library
Mystic Garden Club
Pfizer Foundation, Inc.
Riverside Park Conservancy
Stonington Garden Club
Temple Emanu-El

A NEW SUSTAINABILITY
TRAIL WAS CREATED
FOR THE CAMPUS
LANDSCAPE IN 2021
AND FEATURES THE
LILIAN NIEDERMAN
GARDEN LOCATED
NEXT TO THE CROZIER
WILLIAMS STUDENT
CENTER.



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Nickolas McCarthy, *Groundsperson*
Thomas Nazarko, *Groundskeeper*

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