2019

Arboretum Annual Report 2019

Miles Schwartz Sax
Connecticut College

CONNECTICUT COLLEGE

ARBORETUM

ANNUAL REPORT 2019

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

COVER PHOTO: DRAGONFLY ON FRASIER FIR (*ABIES FRASERI*) BY JASON EKLUND '21

DEAR FRIENDS OF THE CONNECTICUT COLLEGE ARBORETUM,

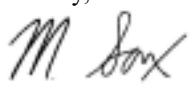
It is a great joy and privilege to have the opportunity to write to you in the first annual report as the Director of the Arboretum. Since starting this position on August 1, it has been a deeply engaging journey getting to know the Arboretum, College and community. From my first days working at the College it became abundantly clear the passion and commitment faculty and staff bring to their work at the institution. It is empowering to be around people excited by scholarship and creatively striving to create the best educational experience for our students and members of the community.

As I have been settling in, I have been starting to dig into the Arboretum's rich eighty-eight year history. During these explorations I have been moved by the vision and leadership of my predecessors and the tireless efforts of countless individuals who worked to shape the Arboretum into what it is today. The Arboretum with its 750 acres of ecologically diverse habitats, its history of botanical and ecological research and engagement with the public is a unique resource in New England and an exemplar of conservation ethic. As we move forward and start to envision the next chapter of the Arboretum, we aim to honor this past while looking to address the environmental challenges of the future.

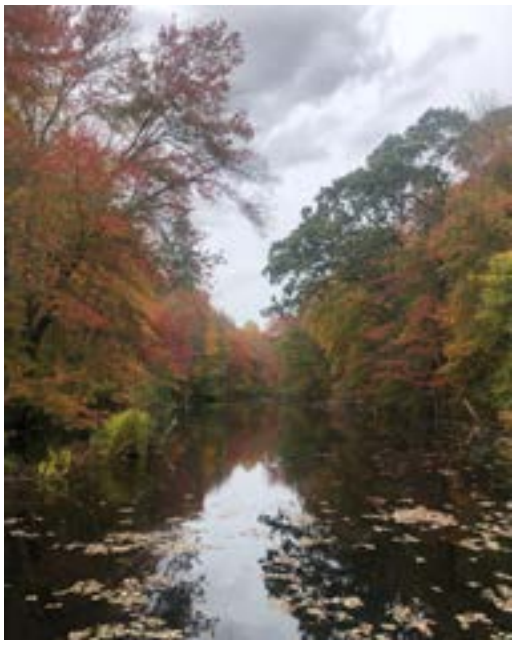
As we take this next step as an institution we will be looking critically at our organizational priorities through a strategic planning effort. We aim for this to be an inclusive process that will help us create priorities and chart a roadmap going into the future. With increased threats to the biodiversity of our planet from a multitude of factors we aim for the Arboretum to be a beacon of hope and resource for the community on issues of conservation, ecological land management and sustainability. We look forward to working with students, members of the community, faculty and staff to help create and realize this vision for the Arboretum's future.

In closing I want to convey a special thanks to the members of the Arboretum community. It is with your support that the Arboretum continues to grow, thrive of distinguish itself as an exceptional New England landscape and botanical institution.

Sincerely,



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



BRIGGS BROOK IN THE
WILLIAM A. NIERING TRACT

ABOUT US

The Arboretum, established in 1931, is a signature feature of Connecticut College and today encompassing 750 acres, includes the 30-acre Native Plant Collection, three-acre Caroline Black Garden, a teaching and display greenhouse facility, 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 nationally. 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 school children, public workshops and conferences.

LOOKING NORTH ACROSS THE SALTMEADOW CORDGRASS (*SPARTINA PATENS*) AT MAMACOKE.

ARBORETUM UPDATES

As the Arboretum embarks on a new chapter in its development, we will be undertaking a review of our strategic direction and organizational priorities. Through this process we will be modifying some of our internal policies to streamline and simplify administrative processes. Please see to the following updates regarding changes to the Arboretum.

STRATEGIC PLANNING

In 2020 the Arboretum will be undertaking a strategic planning process to critically examine how the Arboretum best serves our mission, the College and community. Through this process we hope to engage with all of the Arboretum stakeholders (students, faculty, staff, the public, our members, donors and volunteers) to gain a diversity of perspectives on the organization's strengths and weaknesses and help identify strategic goals for the future. The Arboretum will be looking to honor our history in conservation and ecological land management while charting a new course into the future that addresses contemporary environmental challenges facing our flora and the planet.

MEMBERSHIP PROGRAM

Over the next year, we will be reviewing our membership program and reformatting it to increase its value and foster a deeper connection

with our patrons. As we look to develop our new program we aim to expand our community engagement and connect people with the natural world through the botanical treasures the Arboretum holds in its collections.

COMMUNITY ANNUAL REPORT

The Arboretum has been working to reconfigure the annual report to provide readers an overview of the last calendar year and highlight a series of our most exciting activities and mission-fulfilling accomplishments. As we make this transition, you may notice that some of our highlights include activities beyond the last calendar year. This is a result of the Arboretum realigning the report from the academic year to the calendar year.

In addition to the community report, a second annual report is created for the Dean of Faculty at the end of each fiscal year. The Dean's annual report is a comprehensive document that is used to archive all the Arboretum's activities over the last academic year. If you have questions about the annual report or wish to learn more details about our annual activities, please reach out to our office.

ARBORETUM STAFF

The Arboretum could not function without its dedicated and hardworking staff and we are grateful for their continued efforts to maintain and curate our collections to the highest standard. Deep appreciation is conveyed to Assistant Director Maggie Redfern, Horticulturist Leigh Knuttel, Senior Groundsperson Bryan Goulet, Groundsperson Kraig Clark and Curator Mary Villa. Their continued steadfastness in caring for the Arboretum ensures the vitality of this beautiful landscape and distinguishes us as an exceptional public garden.

The Arboretum would like to welcome Cindy Tosone our newest member of the team. Cindy joined us on August 1 in the role of Department Assistant and in the few short months of working here she has brought a high level of organization to our department and displayed prowess in office management. Cindy's love for gardening, nature and the outdoors attracted her to this position at the Arboretum.

The Arboretum would like to extend a special thanks to Emeritus Arboretum Director Glenn Dreyer for his thirty-six years of service to Connecticut College. Under Glenn's guidance, the Arboretum significantly increased our staffing, funding and programming while simultaneously raising the profile of the institutions among our peer botanic gardens. While in his role as Emeritus Director, he continues to provide thoughtful insights and perspectives that support the Arboretum's mission. We are deeply appreciative of his dedication to the institution.

MILES SCHWARTZ SAX AND GLENN DREYER PHOTO BY KELEIGH BARETINCIC

THE ARBORETUM MISSION IS DEDICATED to maintaining the landscape as an outdoor classroom for faculty and students in all of the College departments and programs. The past year was an exceptional one in terms of faculty using the Arboretum for their classes. Nearly fifty courses used the Arboretum as a teaching resource across a diversity of disciplines such as environmental science, ecology, botany, geophysics, ornithology, archaeology, conservation biology, anthropology, art, film studies and landscape architecture. A number of teaching highlights are as follows:

During the fall semester 2018, Professor Manuel Lizarralde took his "Environmental Anthropology" class to the Native Plant Collection and Goodwin Natural Area for fieldtrips to look at stonewalls and changes of the anthropogenic landscape. His "Ethnobotany of Southern New England" class visited the Arboretum on seven field trips to learn to identify plants that had uses by Native Americans for medicine, food for humans and animals, tools, fuel, raw materials, as well as important ecological services. They also had a hands-on experience working a piece of fallen black gum (*Nyssa sylvatica*) to start a wooden bowl. Manuel also led Visiting Faculty Amanda Gutierrez's "Sound Art" students on an exploration of the aural world of the Bolleswood Natural Area.

Professor Rachel Spicer and Senior Lecturer Pam Hine taught a new course "Environmental Biology" in the spring semester 2019. This class visited the Arboretum for a lab on reading changes in the landscape, with an emphasis on natural history. For the lab session, Pam led the students through the Bolleswood and along the trail at the top edge of the ravine; they stopped by the Glenn Dreyer Bog where they watched an enormous snapping turtle eat tadpoles. They talked about how the size of a tree doesn't necessarily indicate how old it is as evidenced by the red maples in this area; and they went through the wildflower garden. During another of Pam's labs she discussed how invasive plants impact biodiversity and took the class to the south end of campus to look at a patch of invasive plants east of the tennis courts.

SENIOR LECTURER PAM HINE POINTS OUT A SNAPPING TURTLE IN THE GLENN DREYER BOG DURING AN "ENVIRONMENTAL BIOLOGY" LAB. PHOTO BY BRIAN SPEERS '22

Professor Doug Thompson and Beverly Chomiak's "Living on a Changing Planet" lab section spent three weeks in the Bolleswood learning about map use and three weeks on Mamacoke Island refining the established maps of faults, mass movements and vulnerable coastline. Following the field trips, they spent two weeks in the Graphic Information System (GIS) lab making hazard risk maps of Mamacoke Island.

The lab sections of Professor Page Owen's "Plant Structure and Function" course used the Arboretum and greenhouse extensively. The class took a field trip to the Native Plant Collection to examine different leaf shapes and petiole attachments to stems. Students collected leaf samples for their integrative research microscopy project.

For Professor Pete Siver's "Plants, Protists and Fungi" course, the students participated in several field exercises to collect specimens for the study of protists (unicellular organisms) from the Glenn Dreyer Bog, the ravine stream and several soil sites; bryophytes (small non-vascular plants) from numerous sites to understand their water and nutrient capacity; soil samples to study mycorrhizal fungi; and lower vascular plants for examination and to collect spores to grow in the lab. They also took a field trip to study flower morphology.

As part of the Connecticut College's signature Connections curriculum incoming students take a first year seminar (FYS) that introduces them to a topic of study in combination with orientation and advising during their first fall semester. Guided tours of the Arboretum are offered to FYS classes to get students acquainted with the landscape as a campus resource and to learn about ways to become involved in our programming. In fall 2019, eleven first year seminars and approximately a third of all incoming first year students received tours of the Arboretum. One highlight was Karen Gonzales Rice's FYS "Everyone's a Curator" which collaborated with the Arboretum and encouraged students to consider the trees on campus as curated items in a museum. The class worked on a project designing labels for tree accessions that were aesthetically pleasing and informative for visitors.

ADJUNCT ASSISTANT PROFESSOR MICHELLE TURNER'S "ARCHAEOLOGY NORTH AMERICA" CLASS EXPLORED THE GOODWIN NATURAL AREA AND BOLLES FARMSTEAD SITE. STUDENTS LEARNED ABOUT EARLY SUBSISTENCE FARMING PRACTICES AND LIFESTYLES IN THE NEW LONDON AREA IN THE 18TH AND 19TH CENTURIES.

THE ARBORETUM WITH ITS 750 ACRES of forests, prairies, salt marshes and campus landscape makes an exceptional site for scholarship and research. The Arboretum has an eighty-eight year history of using our lands as an outdoor laboratory for studies across a variety of disciplines. The Arboretum continues to support and enhance the use of the landscape for research by collaborating with faculty and students at Connecticut College and partners from across the United States and the world.

STUDENT RESEARCH

In the fall of 2018, Connecticut College student Isabelle Smith '19 worked with Professor Chad Jones, Senior Lecturer Beverly Chomiak and Assistant Director Maggie Redfern on analyzing the data and mapping the trees from the inventory of the municipal trees of New London. She prepared an illustrated report "New London Urban Forestry and Analysis" and shared her results at a presentation held at the Public Library of New London in January 2019. As a result of the publicity surrounding the inventory and the City's removal of mature street trees an enthusiastic grassroots roots group called "New London Trees" was formed. The group, led by Maggie Redfern, includes the Mayor, the City's Tree Warden and interested members of the public. New London Trees meets monthly and works to increase tree canopy coverage in the city and improve management strategies. The group has already been successful in securing a grant to fund the replacement of failing trees on Governor Winthrop Boulevard.

RESEARCH IN THE ARBORETUM

Researchers working under entomologist Kimberly Stoner from Connecticut Agriculture Experimental Station (CAES) has been studying the relationship between native bees and native plants. They began sampling bees using pan traps and nets throughout the Native Plant Collection. In addition, the researchers set up three hives in the nursery area to collect pollen samples and learn what plants the bees

ISABELLE SMITH '19 AND AIDAN CLARK-LONG '19 CONDUCTING A MUNICIPAL TREE INVENTORY DURING THE SUMMER OF 2018 FOR THE CITY OF NEW LONDON WITH THE LONG TERM GOAL OF CREATING A COMPREHENSIVE URBAN FOREST RENEWAL PLAN.

LEFT: **RESEARCH TECHNICIANS FROM THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION DEPLOYED TRAPS ACROSS THE NATIVE PLANT COLLECTION TO SAMPLE NATIVE BEES.**

RIGHT: **TURK'S CAP LILY (*LILIUM SUPERBUM*) BLOOMING IN JULY IN THE NATIVE PLANT COLLECTION.**

were visiting. At the 2019 Smaller American Lawns Today (SALT) Conference, Dr. Stoner presented some of her preliminary findings about bees in the Arboretum. Sixteen genera of native bees were found including twenty species of the ground dwelling mining bees (*Andrena* spp.). Three rare or uncommon species in the genus were found including a specialist on Rhododendron species, *Andrena cornelli*. Expanding the genetic diversity of Rhododendron in the Arboretum's collection has been a strategic objective and one that was recently recognized by the American Public Garden Association by accrediting our Azalea garden into the Plant Collections Network program. The discovery of the Rhododendron specialist bees shows how focusing and expanding genetic diversity within a collection can provide a cascading benefit to pollinators.

Jeff Ward, Chief Scientist at CAES, has been documenting tree mortality around the state. Millions of aging trees across Connecticut are dead or dying most likely as a result of years of drought, invasive insects (gypsy moth, emerald ash borer) and major storms. The Arboretum was chosen because of the historic data sets available from the long-term vegetation studies of the Bolleswood that have been conducted at ten year intervals since 1952. Initial observations indicate that the Arboretum is not seeing the significant mortality of hardwood trees seen in other parts of the state. Further research is underway.

With funding from the Centers for Disease Control and Prevention, researchers at CAES, Department of Forestry and Horticulture began collecting ticks statewide in spring 2019 to monitor tick abundance and test for pathogen presence, including Lyme disease. The biologists sampled on six occasions in the restored meadows near Benham Avenue and found relatively low density. Of interest though, is a nymphal lone star tick (*Amblyomma americanum*) which was collected and had previously not yet been recorded as an established population in New London County.

Since 2014 the Arboretum has been a monitoring site for a lily leaf beetle study conducted by the UCONN Extension Master Gardener Program. Researchers released beneficial parasitic wasps in the summer of 2016 at a number of sites, including the Shaw Mansion in downtown New London. Over time these natural enemies have spread throughout the state and appear to be contributing to the reduction of populations of the beetle. In the summer of 2018 a Turk's cap lily (*Lilium superbum*) was observed blooming for the first time in many years, and in 2019 the populations increased. In the past two years only minimal damage was observed on the lilies' leaves compared to complete defoliation in previous years.

COLLECTIONS

THE 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 Native Plant Collection (30 acres), the Caroline Black Garden (3 acres) and the Campus Landscape (115 acres). In addition to these cultivated landscapes the Arboretum is responsible for managing over six hundred acres of conserved land that includes a diversity of habitats such as forests, meadows, 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.

In June 2019 the Arboretum received re-accreditation as a level III institution under the ArbNet program. The ArbNet Arboretum Accreditation Program recognizes over 260 accredited arboreta at various levels of development, capacity, and professionalism throughout the world. This accreditation recognizes the Arboretum's adherence to botanic garden best management practices and our continued commitment to collections and conservation. Updates to our Plant Collections Policy in 2019 that supported our accreditation include a "Native Azalea Collection Development Plan" and a "Natural Disaster Plan." The accreditation lasts for five years before review; this is the second time the Arboretum has achieved this level of accreditation.

During the summers of 2018 and 2019, curator Mary Villa carried out the two-year campus landscape inventory process. In 2018 she was assisted by curatorial intern Natasha Strugatz '20 and in 2019 by Eslam AbouSamra '22 and Jason Eklund '21. During the 2018-19 academic year, student interns Sarah Bass '19 and Emilio Pallares '19

THE CAMPUS LANDSCAPE FEATURES SEVERAL MATURE SPECIMENS OF AMERICAN ELM (*ULMUS AMERICANA*), ONE OF THE FIRST NATIVE TREES TO BLOOM IN SPRING.

completed measuring the heights of over 1,316 campus trees (which had never been done before) using a hypsometer and a clinometer.

One exciting find that Mary Villa and Jason Eklund came across during their survey was potentially three butternuts (*Juglans cinera*) growing on the edge of the campus collection. The native butternut is notoriously difficult to identify based on morphological characters alone as the species is known to commonly hybridize with other members of the genus. As a result, molecular methods are required to positively confirm the identity of the species and the Arboretum is seeking labs to help with the identification process. Butternut is a close relative to black walnut (*J. nigra*) and it is rare to find natural populations of butternut that have not been decimated by a canker disease. If the trees end up being true butternuts they will represent important conservation germplasm that is now accessioned and

THE DISTINCTIVE OBLONG FRUIT OF A BUTTERNUT (*JUGLANS CINERA*).

MARY VILLA WROTE AN ARTICLE FOR THE AMERICAN PUBLIC GARDENS ASSOCIATION ABOUT THE NATIVE AZALEA COLLECTION AND THE PLANT COLLECTIONS NETWORK ACCREDITATION PROCESS. THE ARTICLE "TAKING A WALK ON THE WILD SIDE: WHAT I LEARNED FROM PLANT COLLECTIONS NETWORK ACCREDITATION" APPEARED IN THE IN PUBLIC GARDEN MAGAZINE VOL. 33, ISSUE 4, 2018.

COLLECTION	TREES	TAXA	SHRUBS	TAXA	VINES	TAXA	TOTAL PLANTS	TOTAL TAXA
NATIVE PLANT	1,007	131	1,282	198	21	10	2,310	339
CAMPUS LANDSCAPE	1,401	237	1,679	225	7	3	3,087	465
CAROLINE BLACK GARDEN	157	75	470	169	1	1	628	245
TOTALS:	2,565		3,431		29		6,025	

AS OF DECEMBER 2, 2019, THERE WERE 6,025 ACCESSIONED LIVING PLANTS IN ALL THREE OF THE ARBORETUM'S CURATED COLLECTIONS.

conserved in the Arboretum's collections. **IN 2019, EMERALD ASH BORER (EAB)** was detected for the first time in the Arboretum. The arrival of the pest was not a surprise. Since it was first identified in Connecticut in 2012, EAB has been quickly spreading across the state. In advance of anticipated expansion of EAB, the Arboretum staff have been protecting ash (*Fraxinus* sp.) and fringe tree (*Chionanthus* sp.) species using an integrative pest management approach. Designated trees are in the Native Plant Collection, Caroline Black Garden and north of Benham Avenue. In the Native Plant Collection, a large white ash (*Fraxinus americana* 93-73A) with a DBH over 2 feet had been in decline over the past several years and was removed in July. One of our summer interns counted approximately 80 tree rings, suggesting the tree was planted in the 1930s. The tree had very little evidence of EAB but upon close inspection a few paths left by larval stage borers were found under the bark as well as one distinctive "D" shaped exit hole. The arborists suggested that treatment had kept the damage to a minimal level and that the tree's decline likely was not a result of EAB.

In the summer of 2019 Leigh Knuttel and Maggie Redfern identified a population of purple milkweed (*Asclepias purpurascens*) that was under threat of being treated by an herbicide application by non-Arboretum contractors. Purple milkweed is a species of special concern in Connecticut and efforts to preserve wild populations are paramount to its survival. Leigh Knuttel went out to mark the area in June and noticed the flowers had just started blooming. Maggie and Leigh returned to the site and counted forty-six flower heads on 20 stalks. Leigh completed the CT Department of Environmental Protection, Natural Diversity Data Base, Special Plant Survey Form and submitted it to the Native Plant Trust. Glenn Dreyer had submitted the form for several years beginning in 2008 and the population appears to have enlarged significantly since his last report in 2011. As a result of the survey, marking off the area and coordinating with the contractors, it was possible to prevent the herbicide application. The Arboretum will continue to monitor these populations of purple milkweed and advocate for protection for this and other rare species.

LEFT: **PURPLE MILKWEED (*ASCLEPIAS PURPURASCENS*).**

RIGHT: **LATE SUMMER BLOOMING WHITE TURTLEHEAD (*CHELONE GLABRA*) GROWS ALONG A STREAM IN THE BOLLESWOOD NATURAL AREA.**

WHILE THE PLANTS, GEOLOGICAL FEATURES and fauna of the Connecticut College Arboretum tell a story of the natural history of New England, our local landscape has also been the home of generations of people living, occupying and interacting with our lands. From archeological evidence of Native Americans having lived on current day Arboretum land over 4,000 years ago to the colonial settlement of New England to the development of the College, the landscape has gone through many changes and been influenced by human interaction. In an effort to understand, catalogue, preserve and honor the diverse history of human interaction with the landscape, the Arboretum has expanded its mission in recent years to include the stewardship of cultural resources. Past Arboretum projects have focused on this aspect of the mission such as Harold Juli's anthropology studies of Native American activity on Mamacoke Island to Anthony Graesch archeological studies of colonial occupancy in the Arboretum. With an expanded mission to include cultural stewardship, the Arboretum is now more active in recognizing and honoring the historic human elements of the landscape.

In 2019, a collaboration by Waterford Town Historian Robert Nye, Patrick Crotty, former Connecticut College Librarian Brian Rogers and the Arboretum was developed to recognize and revitalize a burial ground on the Arboretum's property. The site known as the Rogers Burial Ground is located on the northeastern corner of Conn's rugby field and was once part of the Mamacoke Farm owned by John Rogers. In 2019, efforts by Robert, Patrick and Brian were undertaken to restore headstones and maintain vegetation on the site. The group was successful in acquiring funds to mount a plaque on a boulder in the burial ground honoring the site's history and the Rogers family. For more details on the history of the burial ground, see the article in *The Day* newspaper "Reclaiming the Cemetery New London Forgot" by John Ruddy, November 25, 2019.

WATERFORD HISTORIC PROPERTIES COMMISSIONER PAT CROTTY AND WATERFORD TOWN HISTORIAN ROBERT NYE REPLACE A FALLEN HEADSTONE IN THE ROGERS FAMILY BURYING GROUND.

THE ARBORETUM CONTINUED TO OFFER a full schedule of public programs. Over 1,100 individuals participated in the offering of lectures, workshops, conferences, guided theme walks and family programs. Many programs were led by students, graduates, faculty and staff. Participation by Conn students continued to increase over previous years.

January 2019 marked the 30th anniversary of the New Directions in the American Landscape (NDAL) conference and it was our most successful one yet, drawing over 230 enthusiastic people interested in learning more about ecology-based design. Organized by Larry Weaner Landscape Associates, the annual NDAL symposium has been a pioneering influence in bringing ecology to the forefront of landscape design for an audience of landscape architects, planners, horticulturalists, scientists, teachers and students of all ages. Several popular speakers from past conferences returned as well as a few new voices including contributions from garden history, agro-ecology, anthropology, social justice, art and ecological sciences. In recognition of the NDAL's 30th anniversary,

THE COVER OF BULLETIN NO. 44 FEATURES A MEADOW DESIGNED BY LARRY WEANER LANDSCAPE ARCHITECTS.

Arboretum Bulletin No. 44 was produced and featured the conference. For the bulletin, a number of the speakers at the conference converted their presentations to print format for the publication.

Smaller American Lawns Today (SALT) is the Arboretum's annual conference that discusses topics of ecological land management, landscape design and harmonious gardening with nature for the home gardener. For 2019, the theme focused on "Creating Edible Gardens for People and Pollinators" and included a diversity of speakers on the topic. Dina Brewster, Executive Director of CT NOFA presented on how to "Turn Your Garden into a Pollinator Pathway" and discussed how home gardens can contribute to the food system by supporting farmers and gardeners in the Northeastern Coastal ecoregion. Dr. Kim Stoner from the Department of Entomology at CAES spoke about pollinators and their habitats. She presented on research she has been conducting across the state and in the Arboretum examining the relationship between native bees and native plant communities. Priscila Espinosa, Founder of SproutChange, gave an introduction and overview of regenerative agriculture and permaculture. Russ Cohen, an expert forager and author on wild edible plants, brought the group on a culinary exploration of native New England flora. To top off the day's events, Visiting Assistant Professor of Sustainable Agriculture, Eric Vukicevich gave a tour of Connecticut College's student farm, Sprout Garden.

DIGITAL MAPS

Adding to the other interactive plant collection maps, Mary Villa created an ArcGIS Story Map about the Native Azalea Collection with Senior Lecturer Beverly Chomiak. Plans are underway for creating a Story Map for the full Native Plant Collection, based on the Arboretum docent training manual created in 2015. This will be useful for docents and students learning to lead tours for ArboProject as well as for people

LEIGH KNUTTEL LEADS A TOUR OF FLOWERING MEADOWS IN THE NATIVE PLANT COLLECTION FOR A SUMMER FIELD TRIP. PHOTO BY ROBERT LORENZ.

who are unable to visit the Arboretum in person. Beverly is also working with Research Librarian Andrew Lopez on a history of the Arboretum tracts and land use. They are using archival records and aerial photographs to create an interactive story map that shows the College's land acquisition history in an animated and informative way.

LIBRARY

When Glenn Dreyer retired in June 2018, he left behind most of the books on his office shelves. He acquired these books over the years, many coming from the offices of Bill Niering, Sally Taylor and others previously associated with the Arboretum. After Maggie and Mary sorted through the contents, student worker Sarah Bass recorded the details in a spreadsheet and Mary assigned call numbers according to the Arboretum library's unique alpha-numeric classification system. Approximately 500 volumes were integrated into the Arboretum's library. The complete list of holdings in the Arboretum library collection was sent to the librarians at Shain who catalogued the information into the College's system. Approximately 1,500 volumes are now discoverable in the One Search system with the location: Arboretum Library - Olin Science Center. The books are available for browsing in the Arboretum's reading room; they may be checked out with special permission.

HARKNESS MEMORIAL STATE PARK APPLES

A project with Harkness Memorial State Park was initiated to collaborate on their heirloom New England pear and apple orchard at the former estate. Jeanne Shelburn '74, President of The Friends of Harkness, contacted Miles Schwartz Sax after he presented a lecture on the "Exploration of Apples." Jeanne hoped the Arboretum could assist in identifying some unknown apples trees in their orchard whose identity had been lost since their initial planting in the mid-nineties. Jeanne hosted Miles, Maggie and Eric on several visits to the orchard over the course of the fall 2019. During these trips they collected fruit, took notes on tree characteristics, photographed and mapped the trees. In the coming years the Arboretum will continue to visit these trees in spring bloom and fall fruit in order to ascertain the identity of these trees. With renewed interest in these apple trees, the Arboretum plans to partner with Harkness to offer apple and fruit-related programming in the future; such as grafting, pruning and cider making.

THE ARBORETUM COMMUNITY

ENDOWDED FUNDS

The Arboretum would like to acknowledge those who have created endowments for the organization. These funds show the highest form of commitment to the mission of the Arboretum and provide ongoing support on an annual basis.

Edgerton Abel Memorial Wildflower Garden Fund
Charles and Sarah P. Becker '27 Arboretum Directorship Fund
Bolleswood Natural Area Fund
Gertrude Brown Memorial Fund
Mr. and Mrs. Nelson L. Buck Arboretum Fund
Class of 1944 Special Projects Fund
Richard Goodwin Arboretum Fund
Lillian Dauby Gries '27 Conifer Collection Fund
Syliva Blake Harrison Memorial Garden Fund
Marjorie Holloway Endowed Memorial Garden Fund
Parthenia Grier Johnson Holly Collection Garden Fund
Daniel Klagsbrun '86 Memorial Garden Endowment Fund
Lillian Niederman Memorial Garden Fund
Mamacoke Island Fund
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

CO CO BEAUX, THE COLLEGE'S ALL-MALE A CAPPELLA GROUP, HELPING TO CLEAN UP LEAVES IN FRONT OF THE ARBORETUM ENTRANCE ON WILLIAMS STREET.

STUDENT WORKERS

FALL 2018

Sarah Bass '19
Cedar Berol-Young '22
Linnea Coffin '19
Daniel Cochico '20
Marshall Cooper '20
Midhun Gelder '19
Grant Gibson '22
Oliver Holmes '20
Eamon Horrigan '19
Danso Kuzoe-Jones '22
Emilio Pallares '19
Conor Smith '21
Isabelle Smith '19
Sean Thackeray '19
Jake Upton '22
Roy Walton '21

SPRING 2019

Sarah Bass '19
Daniel Cochico '20
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Oliver Holmes '20
Eamon Horrigan '19
Danso Kuzoe-Jones 22
Jonathan Monderer '20
Emilio Pallares '19
Conor Smith '21
Sean Thackeray '19
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Katie Warren '22

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Jason Eklund '21
Carla Torres '21

FALL 2019

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Marshall Cooper '20
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Elisheva Hollo '23
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