SFA GARDENS ANNUAL REPORT SEPT 1, 2016 TO DEC 31, 2017

INTRODUCTION

STATE LINE, GRANTS, ENDOWMENTS, SALE INCOME AND GIFTS 2016-2017

SFA GARDENS MAP

BUDGET

GARDEN GOALS FOR THE PAST YEAR – STATUS

GARDEN GOALS FOR 2018-2019

PLANT SALE – FALL 2016, SPRING 2017, FALL 2018

LES REEVES LECTURE SERIES

DAVE CREECH

DAWN STOVER

JORDAN CUNNINGHAM

ANNE SULLIVAN

ELYCE RODEWALD

JOCELYN MOORE

DUKE PITTMAN

MALCOLM TURNER

CHRIS DEMPSEY

A PICTORIAL HISTORY – 2016-2017
Note: This report is a departure from past annual reports in that it represents the last sixteen months, not twelve. The University is moving all reporting to an annual basis based on a Jan 1 - Dec 31 time period. As a result, the dollar value and number of activities is, of course, elevated over past years reports.

Introduction

SFA Gardens continues as a recognized center within Stephen F. Austin State University, Nacogdoches, Texas, USA. SFA Gardens is a multi-faceted public garden developed within SFA's Arthur Temple College of Forestry and Agriculture. The gardens are managed by Associate Director Dr. David Creech (1/2 time) and 7.0 staff, both professional and classified, volunteers and student workers.

SFA Gardens cover 68 acres on the SFA campus - 10 acres in the Mast Arboretum and Jim and Beth Kingham Children’s Garden, eight acres in the Ruby M. Mize Azalea Garden, eight acres in the Gayla Mize Garden, and 42 acres in the Pineywoods Native Plant Center and Jimmy Hinds Park. SFA Gardens also plays a role in the maintenance and development of the 60-acre SFA's Recreational Trails and Gardens, which is
adjacent to the Gayla Mize Garden. In addition, SFA Gardens is an umbrella for projects at the Science Research Center and the City of Nacogdoches park system.

Community support is provided by a “Friends of SFA Gardens” group with about 136 members and the SFA Gardens Advisory Board, which meets quarterly. SFA Gardens enjoys a great corps of volunteers. In the 16 months, the SFA Gardens Environmental Education volunteers generated 1,212.5 hours =$29,269.75. The SFA Gardens Volunteer Corps generated 1892.9 hours, worth $44,303.87 with most of the focus on growing and managing the two plant sales per year. Thus, the total volunteer hours for the SFA Gardens set a record this past year: 2449.2 hours’ worth $57,458.23. While State of Texas funding assists with operations and maintenance expenses, the gardens staff raise significant funds through plant sales, a robust grant-seeking effort, and six endowments that support the gardens. The Ina Brundrett Conservation Education Building was constructed at the PNPC in 2014 after a successful campaign to raise about one million dollars in funding. In the past year, we have added additional outdoor lighting to facilitate parking and visitor access during the evening programs. In the past sixteen months, the Ina Brundrett Conservation Education Building has been the central location for over 90 events, meetings, workshops, seminars and, of course, the Les Reeves Lecture series. Most important, the building is a great teaching example of environmentally sensitive methods of construction and operation.

A new development since 2014, the Jimmy Hinds Park, again received funding in the past year from Barbara Finney, the daughter of the late Jimmy Hinds, the first Agriculture Professor at SFA. A primary vineyard was constructed in the past year. With additional varieties and selections in the wings, a decision was made to add five rows. Chris Dempsey led the charge on cleaning up the patch with tree removals. Malcolm Turner took the lead on stump grinding, bedding up new rows, building the irrigation system and mulching the planting. In the past year, we placed a PVC-sign that recognizes the contributions of Jimmy Hinds and installed four benches in the weeping bald cypress “treehenge”. The coming year will focus on expanding the vineyard and adding plantings of woody ornamentals with a focus on flowers and foliage color.

Plant diversity and adaptability are key focal points in developments in each of the four main gardens, offerings in the two plant sales and in the public outreach by staff through lectures, public events, publications and tours. Environmental education for future generations is another main initiative that reaches nearly 14,000 a year in a broad spectrum of programs for ages K-adult.
LES REEVES LECTURE SERIES

Sept 8, 2016. Martin Stone, Director of the Baker Arboretum at Western Kentucky University, Lexington, KY. The Evil House of Roses: Why Josephine Bonaparte is Alive in Your Garden


Nov 10, 2016. Yalma Vargas-Rodriguez. National Council of Science and Technology, University of Guadalajara, Mexico, Department of Ecology and Natural Resources. Sugar Maples (Acer saccharum and A. skutchii) from USA to Guatemala: Phylogeographic Patterns and Taxonomic Novelties

Dec 8, 2016. Dave Creech, Director SFA Gardens, Nacogdoches, TX - SFA Gardens: Is this Garden Adventure Out of Control or Is There a Well Thought Out Plan?


Feb 9 2017. Bob Byers, Director, Fort Worth Botanical Gardens, Great Perennial Borders Don’t Just Happen; They’re Always Works in Progress

Mar 9, 2017. Grant Stephenson, Horticultural Consultants Inc, Houston, TX - Understanding Palms to Understand Their Needs to Thrive in the Landscape

Apr 13, 2017. Steven Chamblee, Director, Chandor Gardens, Weatherford, TX - Great Garden Ideas


June 8, 2017. Dennis Werner, Professor of Horticulture, North Carolina State University Raleigh, NC - Is Redbud the Next Crapemyrtle?

July 13, 2017. Greg Grant, Smith County Horticulturist, Tyler, TX – A Bright Spot in the Heart of Tyler - The Idea Garden


Oct 12, 2017. Rebecca Turk, Education and Events Manager, Moore Botanical Gardens Lake City, South Carolina – Moore Farms Botanical Garden: A Germinating Success from Concept and Collections to Programs
STATUS OF PAST YEARS GOALS 2016-2017

We had planned to have a new greenhouse at the PNPC Horticulture facility in the past year. It did not happen. Money has been in place since mid-Fall 2016. It's been over a year since first meeting with SFA's Physical Plant Department. I believe it's out for bids? We now optimistically add greenhouse construction as the major goal to the 2018-2019 list.

Clearing glades in the PNPC bottomland (NOT ACCOMPLISHED)

More attention paid to garden maintenance, particularly the numerous faces of the garden (A WORK IN PROGRESS)

More work study and student assistants – a plan (ALWAYS SHORT)

Increased contract grow income. (WITH NEW GREENHOUSE, THERE’S OPTIMISM)

Moody Gardens project planted so that full two acres are filled (IT’S ABOUT 2/3 FULL, NOT ACCOMPLISHED – TO BE COMPLETED IN 2018)

TDA Specialty Crop Research Grant on Kiwifruit. YES AND SECOND YEAR FOR 2018-2019 APPROVED

Trip to California with Ross and Alex Stevenson to see the kiwifruit industry (DONE)

Trip to New Zealand and China kiwifruit industry and scientists (DONE)

GOALS FOR 2018-2019

Dave Creech: The major goal for 2018 will be constructing a three bay Quonset greenhouse at the Pineywoods Native Plant Center, just north of the existing horticulture facility. We will submit for continued funding of the Moody Project - final year is at end of 2018. We will seek continued funding of the SFA/TAMU TDA Kiwifruit project for the future of this interesting plant evaluation project. In early 2018, we will steward a project and a proposal forward to the Walsh foundation and further a collaborative strategy with Environmental Design, Tomball, Texas. We will move the small portable building (not being utilized) at the Ruby Mize Garden to the PNPC to serve as a center piece of a planned Children’s Garden. For plant sales, we will have less buy in of branded product. We will clear a few trees in the PNPC bottomland to create four or five sunlit glades and prepare them for Fall 2018 planting. We will improve the sunlight situation at the blueberry research plots, north end of the PNPC.
The Jimmy Hinds park will receive a transfusion of flowering trees and shrubs. SFA Gardens will put increased attention on general garden maintenance with particular attention to the numerous “faces” of the gardens. At the Brundrett Conservation Education building, we will embark on a project for rainwater capture. Construction of a lean-to shed for PNPC hort facility. Bring our Cub tractor back to former glory.

Dawn Stover: Like Dr. Creech, I have high hopes to actually see the greenhouse project come to completion. I would like to travel and network more. I hope to expand contract growing opportunities. We will continue to source local genotypes into our program. With the Oncor high voltage line renovation now firm, we can return to filling the trial garden at the north end of the Mast Arboretum.

Elyce Rodewald: 1) Investigate grant funding for a Nature Explore Classroom, 2) Streamline storage in room 103 of CEB, 3) Investigate grant funding for assistant education coordinator position, and 4) Collaborate with Ag dept professors and students to develop and execute educational Lumberjack Pumpkin Patch event at Walter C.Todd Beef Farm.

Jocelyn Moore: 1) Continue to develop internship opportunities for Nacogdoches Naturally 2) Goal to expand intern recruitment from nutrition program to horticulture students as well, 3) Find sponsorship for food costs for Earth Day Celebration, 4) Collaborate with other faculty and student groups for Earth Day to encourage more student attendance and engagement and ongoing collaborative projects, 5) Develop and offer edible garden 101 training for NISD teachers and volunteers who have started or would like to start a school garden.

Duke Pittman: While we have a good start, we need to improve the main drainway channel in the Gayla Mize Garden. This will require lowering the one culvert six inches and cleaning out and further defining the V-ditch started this past year. More attention in the Gayla Mize Garden needs to be paid to individual plant maintenance (implement an improved mulching strategy, tackling rogue weed seedlings at the base of plants early, before they are entrenched, adjusting emitter placement when needed, pruning away low hangers, moving labels that are girdling trunks up into the plant, correcting leaning trees while they are young, staking /caging plants to minimize deer damage and removing pine straw and other debris that has accumulated in plants. In the spring 2018, in the Gayla Mize Garden we will implement a thorough and careful treatment of plants with 21-0-0 to increase growth rate.

Anne Sullivan: Promote more weddings and receptions for up to 100 guests in the gardens and Brundrett facility, both resources in and for our community and an income source for the gardens. The acquisition and installation of additional outdoor lighting is on the wish list for the enhancement and safety of evening events held at the Brundrett building. This past year saw the addition of a gate and pathway extending from the newly renovated north parking lot at Raguet Elementary, which provided easy access to an additional 40-plus parking spots right next door to the PNPC. Additional lighting will
encourage and enhance the use of this parking resource as well as events held at the Brundrett facility and PNPC.

Malcolm Turner: Keep maintenance at a high level in assigned areas, expand the Kiwifruit garden, add five rows to the Muscadines. With a ditch witch, we will need to create additional mainlines and drip lines in several research plot projects. Finish planting the beds at Moody Gardens in early 2018; give the entire project a good mulching.

Jordan Cunningham: I look forward to a new greenhouse and cold frame so we have space to increase our production; I will keep better records of propagation and production; Organize to make plant sale preparation go even smoother; Redo outdoor sun pad irrigation systems to have zones that will decrease over-watering problems.

Chris Dempsey: I will continue to open understory for improved sunlight infiltration in both the Ruby Mize and Gayla Mize Gardens. Replant bare areas within Ruby Mize. Assist in creating four or five “glades” in the bottomland of the PNPC. At the blueberry research plot, we will tackle a project to improve the sunlight there, critical for best growth and production.
David Creech

Director, SFA Gardens

INTERNATIONAL:

April 25 – May 15, 2017. New Zealand. One week Kiwifruit business and two weeks in a rental car on the South Island with Janet, visited five botanical gardens. Christ Church, Dunedin, Queenstown

July 22 – August 9, 2017. Trip to China. One week at the International Botanical Congress, Shenzhen, China, where I presented a paper and moderated a session. Then, two weeks of blueberry and Taxodium consultations at Changsha, Nanjing, Jingjiang, and Ninghai, China. Also visited a Kiwifruit breeder at Changsha, CN

PUBLICATIONS AND PRESENTATIONS

Aug 30-Sept 2, 2016. Woody Ornamentals for the Gulf South. Presentation at the Southern Plant Conference, Southern Nurserymen’s Association, Athens, Georgia. 213 participants

Yuhong Zheng³, Bea Clack², Yin Yunlong³, David Creech¹. Genetic Diversity of a Range of Taxodium distichum Genotypes and Cultivars Based on ISSR Markers. ¹Arthur Temple College of Forestry and Agriculture, Stephen F. Austin State University, Nacogdoches TX 75962; ²Department of Biology, Stephen F. Austin State University, Nacogdoches, TX 75962; ³Institute of Botany, Jiangsu Province & Chinese Academy of Sciences, Nanjing, China 210014. Hortscience 51(9): S24


November 11, 2016. E. Fowler, S.C. Wagner, K. Farrish, E. Harris, D. Creech. 2016. Assessment and Characterization of Microbial Communities in Salt Affected Soil on Galveston Island. Arthur Temple College of Forestry and Agriculture, Stephen F. Austin State University, Nacogdoches, Texas. A presentation to the Texas Branch Fall Meeting of the American Society for Microbiology, UT-Dallas, TX. 50 participants

E. Harris, K.W. Farrish, D. Creech, and J.L. Young. 2016. Soil Amelioration and Plant Establishment on Sodium Affected Soils on Galveston Island, Texas. Arthur Temple College of Forestry and Agriculture, Stephen F. Austin State University, Nacogdoches, Texas. A Poster Paper presentation to the Society for Ecological Restoration Texas Chapter, Livingston, TX, November 11, 2016. 50 participating


Creech, David. SFA Gardens Has Gone Fruity. TNLA Green 18 (6): 35-36

Edited after review and resubmitted Dec 2016: Lei-hong Wang1 Jun-xian Yang2 Li Fu3 Yu-hong Zheng3,4* David Creech4. Phylogeny of Elaeagnus L. based on morphology in China. (1 School of Forestry & Landscape Architecture, Anhui Agricultural University, Hefei 20036, China; 2 School of Science, Anhui Agricultural University, Hefei 20036, China; 3 Institute of Botany, Jiangsu Province and Chinese Academy of Sciences, Nanjing Botanical Garden, Mem. Sun Yat-Sen, Nanjing 210014, China; 4 Arthur Temple College of Forestry and Agriculture, Stephen F. Austin State University, Nacogdoches USA, 75962)

Creech, David. 2016. Thirty years of Plant Evaluation at SFA Gardens: A Retrospective. SNA Research Conference Vol. 60: 216-224. 50 participants

Dec 2, 2016. Winning Trees and Shrubs. Presentation to TAMU seminar on ornamentals, Fort Worth, Texas. 30 participants

Dec 14, 2016. Winning Trees and Shrubs. Presentation to TAMU Landscape Design Conference, College Station, Texas. 15 participants

$30,000 from Barbara Finney for JH park. Learned about this gift, Jan 10, 2017


Feb 22-24, 2017. SFA Gardens update. Presentation at the annual conference of the Texas Association of Botanical Gardens and Arboreta, Grapevine, Texas. 65 attendees. Attended with Chris Dempsey and Malcolm Turner

March 30, 2017. Creech, David. Woody Trees and Shrubs to make your neighbors envy. Presentation at The Arbor Gate, 15635 FM 2920, Tomball. TX. 50 attendees


June 5, 2017. Fruit of His Labors. Nacogdoches Daily Sentinel article. Front page article on our kiwifruit work. Several wrong quotes, some misinformation

ANNA KOONCE TAKES SECOND PLACE POSTER PAPER. Anna Koonce, a young high schooler from Louisiana, has won second in the world in the ISEF Fair 2017, Los Angeles, CA, May 18, 2017 with a paper titled, “The Effect of Sodium Chloride on Hybrid Taxodium Selections. Anna had previously won the state completion in Louisiana. We collaborated with Anna and Dr. Ed Bush, LSU, to bring this project to completion. Results indicated the Taxodium hybrids were more salt tolerant than native bald cypress.

In the past year, I lost the ability to webmaster SFA Gardens. Several hundred plant webpages were lost forever with no redirect provided. Many were number 1 google cited. Many were cited in references. After discussions with Information Technology, I decided to create my own Wordpress and I’m slowly building readership and followers. That link is here: https://dcreechsite.wordpress.com/

Journal Article Reviews: 1) For the Proceedings of the 19th Biennial Southern Silviculture Research Conference, SILVICULTURAL AND GENETIC INFLUENCES ON PLANTED CYPRESS PRODUCTIVITY. Donald L. Rockwood1, Marvin Buchanan2, and Monica Ozores-Hampton31Professor Emeritus, School of Forest Resources and Conservation, University of Florida, Gainesville, FL 32611 2President, Central Florida Lands & Timber, Mayo, FL 32066 3Associate Professor, SWFREC/IFAS/University of Florida, Immokalee, FL 34142
April 19, 2017. At the SOAR conference at SFASU, received a Bronze award faculty member recognized for research grant funding received ($250,000 – $499,000 category since 2013)

April 20, 2017. Leadership Nacogdoches at the CEB for a thirty minute PowerPoint overview of SFA Gardens – 30 in attendance

June 12, 2017. IPPS-SR Board meeting in Chatanooga, TN. 9 in attendance


June 30, 2017. Wild about Woodies. Our third conference for industry professionals. Four speakers representing four states. Mike Schnelle (OK), Garry McDonald (AR), Greg Grant (TX), Rick Webb (LA). 65 in attendance


August 2, 2017. Dave Creech, a presentation in Jingjiang, China. “Taxodium research and use in USA.” Second annual conference on Taxodiums at the Jingjiang Taxodium Research and Germplasm Base. 105 in attendance

August 18, 2017. Blueberries, Blackberries, Muscadine Grapes, Kiwis and more. Presentation to the East Texas Fruit and Vegetable Conference, Overton, Texas. 65 in attendance


TNLA Green 19(4): 43-45


October 1, 2017. SFA testing fruitful proposition. The Lufkin News.
Creech, David. Oct 28- Nov 1, 2017. IPPS-SR conference; at end of meeting, I began serving as President of the Southern Region. During conference, I assisted with the silent and live auction of plants which brought in a record $9836. I attended several Board meetings. I was one of three at the Question Box in a forum we called “Three old wise men on stools,” in an open and freewheeling discussion with industry on topics of concern. 210 participants


Creech, David. Nov 4-5, 2017. “China, Mexico, Texas and Beyond.” Presentation at the Winn Ranch near Dripping Springs, TX to an eclectic crowd of Landscape architects, designers, nurserymen, and plantmen of stature in the Austin region. Toured “Devil’s Hole”, a unique collapsed cave and limestone feature on this private ranch. Hosted by the Madrone Group and Melinda Winn. 24 participants

Creech, David. Nov 10, 2017. Memories of Ab. At the Ab Park Dedication. 75 in attendance


Creech, David. Nov 14, 2017. SFA Gardens Update. To the Four Seasons garden club. Ina Brundrett Conservation Education Building. 22 participants


Creech, David. Dec 14, 2017. Surviving 2017 with no permanent injuries. Presentation to the Les Reeves Lecture Series. 50 in attendance

Labyrinth project in the Gayla Mize Garden – Luke Stanley, Eagle Scout project, Tim Howell donated $12,000 worth of the chemical Klingstone Paths and the labor to apply it. We estimate that SFA Gardens invested about $5000 for rocks, gravel, and labor.

Moody Gardens Project Grant – we received funding for the third year of this project Texas Department of Agriculture Specialty Crops Research Block Grant was approved for the Kiwifruit Evaluation project for the second year (to begin in January 2018).
Dawn Stover – SFA Gardens Manager
Greenhouse Team

Research Associate: Dawn Stover

Greenhouse Technician: Jordan Cunningham

Student Workers: Cole Gandy, Brittany McGinn, Ellie Naude, Lindsey Buggi, Luis Parra, Peyton Button, Sarah Weatherford

Volunteers: Charles Bradberry, Ken Braddock, Barbara Blackwell, Brenda and Harry Mansfield, Margie and Jimmy Rodriguez, Sherrie Randall, Peg Kern, Lil McInnis, Joyce Adams, Don Parsons, Don and Bonnie Orr, Gerry and Ramona Peacock, Jerrell and Derrell Durham, Mary Beth Hagood, Jackie Grant, Dawnella Rust, Jeff and Angie Brewer, Tammy Welch, Robert Nau, Betsey Lowe, John and Sara Bowie, Anita Kite, John Makow, George and Pauline Patterson

Garden Team

Gardens Supervisor: Duke Pittman

Gardens Technicians: Chris Dempsey, Malcolm Turner

Student Workers: Mason Danheim, Hunter Walker, Christopher Keeler, Nick Schiwitz, David Peterson, Will Kruckeberg, Cody Foster, Thomas Dimmitt, John

SFA Gardens Volunteers:


Training

SFA: TCP, Security Basics, Receipts and Deposits
Professional conferences: Texas Pollinator PowWow conference, IPPS Southern Region

**Professional Affiliations:** Perennial Plant Association, Native Plant Society of Texas

**Presentations and Outreach**

January 9, 2017: “Planting and Planning for Pollinators” presentation to Shreveport Garden Study Club, 45 in attendance

January 26, 2017: Garden tour for San Augustine Master Gardeners, 12 in attendance

February 3, 2017: “Herbs” presentation to Flora Garden Club, Nacogdoches. 25 in attendance

March 4, 2017: Hosted Invitational FFA Nursery and Landscape Career Development Event at Houston Livestock Show and Rodeo, 125 students in attendance

March 29, 2017: Garden tour for Gregg and Harrison County Master Gardeners, 20 in attendance

April 1, 2017: Garden Gala Day plant sale, raised $49,680

April 20, 2017: Guest lecture SFA Floriculture, 20 students

May 1, 2017: “Planting and Planning for Pollinators” presentation to Native Plant Society of Texas, Tyler Chapter, 40 in attendance

May 4, 2017: ‘Food Prairies’ presentation given at the Texas Pollinator PowWow conference, Nacogdoches, TX, 125 in attendance


May 10, 2017: Garden tour for Louisiana Tech horticulture students, 15 in attendance

June 6, 2017: Garden tour for Nacogdoches LIFT group, 5 in attendance


August 18, 2017: “Managing for Pollinators” presentation at East Texas Vegetable Conference, Overton, TX, 100 in attendance

September 20, 2017: “Attracting Pollinators to the Garden” presentation to San Augustine Rotary, San Augustine, TX, 15 in attendance

October 7, 2017: Fabulous Fall Festival plant sale, raised $31,160
October 17, 2017: Garden tour for Green Street Garden Club, 20 in attendance

November 3, 2017: Organized Texas Arbor Day tree planting, Nacogdoches Sportsplex. 125 native trees planted

November 10, 2017: Ab’s Park Dedication, planted tree in honor of Frances Shofner

November 11, 2017: “Planting for Pollinators in a Post Wild World” presentation for Smith County Texas Agrilife Extension, Tyler, TX, 25 in attendance

November 30, 2017: Wreath making workshop for SFA Marketing and Communications department, 15 in attendance

December 2, 2017: “Deck the Halls” wreath making workshop, SFA Gardens Saturday Seminar, 26 in attendance

December 13, 2017: Wreath making demonstration for SFA Floriculture students, 16 in attendance

**Garden Accomplishments:**

Created greenhouse technician position, hired candidate Jordan Cunningham for the position

Facilitated Gayla Mize Garden map update

Facilitated SFA Gardens Kiwifruit Field Day and Wild about Woodies conferences

Increased herbaceous diversity in the SFA Pineywoods Native Plant Center including enhancing plantings of endangered species: *Phlox nivalis ssp. texensis* and *Gaillardia aestivalis var. winklerii*

Began development of East Texas sandy lands demonstration garden

Began contract grow project for Environmental Design
Jordan Cunningham – Greenhouse Technician

I was hired in April of 2017 and I maintain the greenhouses, take care of crops, seed and cutting propagation and manage crop production, and supervise student workers.

Training:
Pollinator Powwow in Nacogdoches May 4th and 5th
Industry Days in Overton and Nacogdoches June 29th and 30th

This year’s accomplishments:
Organized the main working area for SFA gardens staff
Propagated 4000 kiwis from seed
Collected Acer skutchii seedlings for a contract grow program
Assisted in the hiring of student workers
Coordinated tasks for student workers
Developed a better system for seed stratification
Began working on the Walsh tree project

Goals:
I look forward to a new greenhouse and cold frame so we have space to increase our production
Keep better records of propagation and production
Organize to make plant sale preparation go even smoother
Redo our outdoor sun pad irrigation systems to have zones that will decrease over-watering problems
The Program Associate position was created in May, 2016 for support and expansion of existing programs including membership, booking and scheduling of events in the Brundrett Conservation Education Building, the quarterly SFA Gardens Newsletter and Board of Advisors meetings, the Theresa and Les Reeves Lecture Series, garden accounts, grants and publications. During the 2016-2017 fiscal year, garden memberships totaled 114 members. I would like to see that number increased to over 200 members annually by seeking out new potential members, both locally and from neighboring communities.

Over 90 SFA and community meetings, luncheons, seminars, lectures and workshops were held during the year in the Brundrett Conservation Education Building in addition to the many outdoor education activities conducted by Education Coordinator, Elyce Rodewald for area school children and families.

Promoting and facilitating more weddings and receptions, for up to 100 guests, in the gardens and Brundrett facility, which are resources for our community and an income source for the gardens, is a goal of this position. The acquisition and installation of additional outdoor lighting is on the wish list for the enhancement and safety of evening events held at the Brundrett building. This past year saw the addition of a gate and pathway extending from the newly renovated north parking lot at Raguet Elementary, which provided access to an additional 40-plus parking spots right next door to the PNPC. Additional lighting will encourage and enhance the use of this parking resource for our facility.
Education Team
Coordinator: Elyce Rodewald

Assistant Coordinator: Jocelyn Moore

Student Workers: Charles Brown, Alex Marquez, Alexis Butler, Mallory Smith, BreAnna Jackson, Yasmine Abdallh, Savanna Jenkins, Tessla Rickman; Brittni White, Laura Jackson, Tara Rickman

Interns: Brittni White, Lakyn LeVasseur, Delisha Livingston; Nathan Slinkard

Education Assistants: Catie Munguia, Kike Munguia, Miranda Salisbery, Kerry Lemon,

SFA Garden Volunteers: Ray Goehring, Ruth Heino, Mary Louise Jobe, Cindy Bashaw, Merry Anne Bright, DC Brown, Izzabella Daniels, Rob Debardelaben, Cam Rojas, Daniel Miller, Kerry Barnes, Rick Schafer, Jessica Pruneda, Cliff Shackleford, Jim Lemon, Michael Moore, Nick Shiwitz, Nicole Fernvay, Andre Saenz, Asa Vermeulen, Kai Welford, Lana Welford, Jessica Mattox, Madison Law, Ethan Shoal, Ginger Lamore, Sierra Thornton, Sabrina O’Neal, David Peterson, Will Kruckeberg, Emma Wilson, Quentin Silva, Enrique Munguia, Josh Sealey, Sam Rhodes, Nadia Garcia, Cindy Sims, David Sims, Sarah Jones, Dixie Daniels, Sherrie Randall, Barb Stump, Mary Clifton, Terri Eastepp, Diana Chavez.

Presentations
Coordinated and/or presented educational programs for SFA Gardens for over 10,000 participants. See table below.

Highlights include weekly after-school programs for Boys and Girls Club Members, hands-on environmental education field trips for all Nacogdoches ISD elementary students grades K-5, outdoor family fun days, bi-monthly garden seminars, four weeks of summer camps and special events including the Little Princess Tea Party, Juneteenth Celebration and two FFA Career Development Events (horticulture judging contests).
SFA Student Involvement
Environmental Education programs at SFA Gardens advanced the University mission by enhancing excellence in teaching, learning, creative work and service and by creating new learning opportunities for SFA students. Four students completed required internships by participating as teachers in the after-school program or summer camp experience. Students enrolled in Dr. Alan Soward’s and Leah Kahn’s science methods courses also gained hands-on experience in curriculum development and instruction in an outdoor classroom through their participation in Bugs, Bees, Butterflies and Blossoms and Wild About Science.

Community Partners

Training
At SFA, attended TCP training, CPM training, receipts and deposits training, security training, payment card training and travel card training. Attended Angler Education workshop; completed NOLS Wilderness First Aid Training; attended ISEA conference; attended Sharing Nature with Children training; attended Texas Children in Nature Network summit and CAST science teacher conference
At SFA, attended TCP training, CPM training, receipts and deposits training, security training, payment card training and travel card training.
Attended Angler Education workshop; completed NOLS Wilderness First Aid Training; attended ISEA conference

Service
Serve as co-chair of nutrition committee for the Healthy Nacogdoches Coalition
Member of NAAEE
Member steering committee for Texas Children in Nature Network

Awards
Received Texas Forestry Association’s Forestry Outreach and Education Award
Received American Association of University Women’s Woman of the Year in Environmental Education Award.
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| Children’s Programs                              |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|---------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Arboretum Adventures                             | 917       | 546       | 820       | 733       | 1048      | 1126      | 771       | 1182      | 1377      | 784       | 546       | 514       | 528       | 543       | 626       | 611       |
| Trees Are Terrific                               | 2329      | 1246      | 902       | 622       | 1764      | 1750      | 2072      | 1755      | 552       | 521       | 717       | 0         | 0         | 0         | 0         | 0         |
| Forest Awareness                                 | 456       | 680       | 1050      | 1200      | 1900      | 535       | 613       | 600       | 571       | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| GardenQuest                                      | 398       | 844       | 381       | 0         | 525       | 182       | 318       | 89       | 320       | 175       | 0         | 28       | 120       | 130       | 182       | 0         |
| Go Wild                                          | 174       | 696       | 824       | 549       | 711       | 772       | 603       | 752       | 540       | 489       | 473       | 485       | 521       | 538       | 742       |           |
| Wild About Science (Go Native Field Day)         | 0         | 0         | 250       | 390       | 594       | 594       | 594       | 351       | 483       | 478       | 523       | 452       | 448       | 455       | 425       | 931       |
| Earth Science Exploration                       | 475       | 475       | 512       | 1076      | 668       | 766       | 447       | 402       | 520       | 557       | 852       |           |           |           |           |           |
| School Gardening                                 | 66        | 0         | 0         | 0         | 0         | 0         | 120       | 0         | 0         | 0         | 473       | 496       | 0         | 0         | 0         | 0         |
| Bugs, Bees, Butterflies and Bloxoms             | 560       | 1006      | 2625      | 2640      | 2574      | 2816      | 2680      | 2600      | 2477      | 3292      | 3351      | 3523      | 3279      | 3395      | 3553      | 3600      |
| Pinewoods Day Camps                              | 28        | 26        | 30        | 58        | 63        | 67        | 74        | 77        | 83        | 87        | 97        | 91        | 92        | 82        | 77        |           |
| Children’s Special Activities                    | 571       | 1288      | 1638      | 1756      | 2064      | 206       | 350       | 809       | 882       | 115       | 804       | 2128      | 1902      | 1023      | 590       | 667       |
| Wild About Wetlands                              | 0         | 0         | 0         | 87        | 154       | 355       | 111       | 46        | 19        | 29        | 27        | 30        | 100       | 108       | 88        | 88        |
| Nacogdoches Naturally-Family Day                  |           |           |           |           |           |           |           |           |           |           |           | 103       | 520       | 590       | 893       | 1753      | 1858      | 1640      | 424       | 864       |
| CDE (Career Development Education)               |           |           |           |           |           |           |           |           |           |           |           | 700       | 680       | 511       | 704       | 732       | 687       | 345       | 784       |
| Nacogdoches Naturally-After school                |           |           |           |           |           |           |           |           |           |           |           | 503       | 495       | 643       | 1138      | 938       | 916       | 347       | 517       |
| **Sub-total**                                     | **4972**  | **5208**  | **6836**  | **6745**  | **9467**  | **9521**  | **9566**  | **10349** | **10738** | **10953** | **10275** | **12496** | **12104** | **10112** | **8733**  | **10167** |
| **Total**                                         | **8113**  | **9118**  | **9703**  | **10761** | **13037** | **15117** | **16336** | **18017** | **17176** | **15999** | **15725** | **19831** | **19386** | **18224** | **12447** | **14378** |

Data shown are from September through August each year.

*Sept 2016-December 2017
JOCELYN MOORE – Assistant Education Coordinator (3/4 time)

Nacogdoches Naturally Education Program:

Once weekly after school program for 20 Boys and Girls Club Members during the 2016-2017.

Family fun days:

January 21, 2017: Kid Fish – community event
February 4, 2017: “Permablitz” Serving Learning Garden Day – community event at PNPC
February 18, 2017: Bird Day – community event at PNPC
April 1, 2017: Earth Day Celebration – community event at PNPC
April 29, 2017: Breakfast on the Farm – community event at the SFA Beef Farm
June 17, 2017: Juneteenth Celebration – community event at Festival Park
June-July, 2017: Pineywoods Summer Camp Programs for children ages 4-15
November 2016-December, 2017: Assisted with weekly educational field trips from students grades 2-5
September 23, 2017: Pineywoods Native Plant Center 2017 Bioblitz - community event at PNPC
November 14, 2017: Family Harvest Feast for Nacogdoches Naturally – students, staff, parents and family members welcome to share a meal students prepared at the CEB building at PNPC

Presentations/Outreach:

January 7, 2017: Consulted site preparation and led service day for Girl Scouts and community members for Snake Woman's Garden at Caddo Mounds (40 people, estimate)
February 4, 2017: Best Vegetables for East Texas and Lasagna Gardening Seminar – SFA Garden Seminar

April 11, 2017: Regenerative farming talk to 8th Grader Leaders of Tomorrow (LOT) Crew at the Forestry Building (50 students total, estimate)

April 18, 2017: Ornamental and Edible Plans for Your Patio at Barn Hills (20 senior citizens, estimate)

June 15, 2017: Holistic Design talk with Dr. Laird and forestry students to help prepare for service learning trip to Haiti (5 people)

October 6, 2017: Presentation on the benefits and progress of school gardening in Nacogdoches – presented for a Healthy Nacogdoches Coalition meeting at the Nacogdoches Public Library (45 people, estimate)

Grants and funding:

May 15, 2017: Applied for Eat, Learn, Grow, Go Grant through Texas A&M AgriLife Extension

September 5, 2017: Received $1,500 for Nacogdoches Naturally school gardening program. Used funding for gardening and culinary equipment, soil, fertilizer, plant starts and seeds.

Trainings:

January 10-11, 2017: Defensive Driving Training with SFA UPD

January 19, 2017: Food Handler's Training with Claudann Jones at the AgriLife Extension Office

May 5, 2017: National Archery in the Schools Program (NASP) Basic Instructor Training

May 26-28, 2017: Wilderness First Aid Training in Dallas, TX

June 5-9, 2017: Pinewoods Summer Camp/Outdoor Education Training

June 8, 2017: First Aid CPR AED Training

September 15-17, 2017: Intensive weekend training on Permaculture Design

October 14-15, 2017: Intensive weekend training on Climate and Water Systems

November 11-12, 2017: Intensive weekend training on Soil Biology and Compost Systems

Other:
February 15-17, 2017: Attended Informal Science Education Association (ISEA) conference

October 24-26, 2017: Attended Louisiana Farm to School conference and toured school gardens in New Orleans, LA

November, 2017: Invited to be part of steering committee for Healthy Nacogdoches Coalition. One important focus of the group is to support local school gardening initiatives, including Nacogdoches Naturally.

November 14-17, 2017: Hosted Nathan Slinkard, intern from SFA Food Nutrition and Dietetics master’s program, to help with educational programing for Nacogdoches Naturally.

Duke Pittman – Gardens Supervisor

I am the SFA Gardens Supervisor and came on board in October 2009. I'm an SFA Horticulture graduate (2008). I grew up in Mexia, Texas and developed an early love for gardening before graduating from Mexia High School. Most of my duties are associated with garden maintenance and helping manage a great number of garden projects. Most of my maintenance responsibilities are in the Mast Arboretum, Ruby Mize Garden and Gayla Mize Garden which included irrigation management, weed control and removing dead/dying plant material. I have prepped beds for planting. I was partially responsible for a drainage improvement project in the Gayla Mize Garden, a work in progress. I have assisted in planting many trees and shrubs. I have assisted Malcolm Turner in the kiwifruit research plot expansion.
Malcom Turner – Gardens Technician

I arrived in March 2017 with responsibilities associated with several research projects. I have curatorial responsibilities for the following:

1) Kiwifruit research plot along Lanana Creek at the Starr Ave. bridge

2) Figs between Lanana Creek and the intramural field South of the Mast Arboretum

3) Blueberry research plot at the N end of the PNPC by the Music Preparatory building on Raguet St.

4) Muscadine vineyard in the Jimmy Hinds Park on Austin St.

5) The container nursery pad located at the Physical plant’s Grounds and bus barn building.

6) Moody Gardens research plot. I have curatorial and data collection responsibilities for a two acre research plot at Moody Gardens on Galveston Island.

In the past nine months I’ve learned the opportunity to juggle the activities of these interesting projects - and interface with the work of other staff at SFA Gardens. Most of my work this first year has involved cleanup and maintenance of my assigned areas. Irrigation management, pruning and training, weed control, trellis and overhead arbor construction and mulching are all activities under my umbrella of work. As part of my development, I attended the Texas Association of Botanical Gardens and Arboreta meeting in Grapevine, Texas, with Dr. Creech and Chris Dempsey, where we met and listened to directors and staff from many gardens in Texas report on their past year’s work - and toured the Grapevine Botanical Garden with other likeminded horticulturists. Goals for the coming year are simple: Keep maintenance at a high level, expand the Kiwifruit research plots, add five rows to the Muscadine research plots and finish planting the beds at Moody Gardens in early 2018.
Chris Dempsey – Gardens Technician

I earned my Bachelor of Science in forestry from SFA’s Arthur Temple College of Forestry in 2014. After graduation, I was an arborist for Bartlett Tree Experts in San Marcos, TX. After returning to Nacogdoches, I joined SFA Gardens as Senior Garden Technician. During the past year, I cleared trees from a portion of the Jimmy Hinds Park destined for expansion of the muscadine grape research plots. I have cleared trees from Ruby Mize and Gayla Mize to improve sun infiltration, a project that needs to continue particularly in the Ruby Mize Garden. I have handled general maintenance issues in the Mast Arboretum, Ruby Mize Garden and Gayla Mize Garden which included irrigation management, weed control and removing dead/dying plant material. I have prepped beds for planting. I was responsible for a drainage improvement project in the Gayla Mize Garden, a work in progress. I have assisted in planting many trees and shrubs. I have assisted Malcolm Turner in the kiwifruit research plot expansion. I conducted a successful “Planting and Pruning” seminar at the Ina Brundrett Conservation Education Building. I attended the Texas Association of Botanical Gardens and Arboreta meeting in Grapevine, Texas, with Dr. Creech and Malcolm Turner, where we met and listened to directors and staff from many gardens in Texas report on their past year’s work - and toured the Grapevine Botanical Garden with other horticulturists. As part of my development activities, on June 30, 2017, I attended a “Wild About Woodies” event hosted at the Ina Brundrett Conservation Education Building that featured four speakers from four states and a tour of new woody plant materials in our gardens. Many of my duties are associated with the general maintenance of the Ruby Mize Garden, Gayla Mize Garden, SFA Mast Arboretum and Pineywoods Native Plant Center.
THE GARDEN

Luke Stanley, local Eagle Scout, took on a labyrinth construction project in the Gayla Mize Garden. He created a GoFundMe website and raised money and SFA Gardens provided about $5000 match in materials and labor. The end result is a perfect seven course labyrinth in the Gayla Mize Garden. It’s framed by a circle of ‘Slender Silhouette’ sweetgums that are surrounded by another circle of Asian evergreen Magnolias which will be clipped to a hedge.

Tim Howell, Klingstone Paths, Nacogdoches, Texas donated materials and labor for treatment of the gravel floor of the labyrinth. This product solidifies the path into a concrete-hard yet permeable surface.

The Fall Japanese maple show is a collage of reds, oranges and yellows. With over 350 varieties, the collection is one of the best in the South.
Gaillardia aestivalis var. winklerii in fine show at the Ina Brundrett Conservation Education Building

Acer saccharum ssp. skutchii, Mexico Mountain Sugar Maple. Our research plots are located at the Science Research Center about five miles from the campus. This exciting woody tree is fast growing, alkaline, heat and drought tolerant.

The mantra of SFA Gardens is let’s keep planting. This new garden bed features Strickland hybrid deciduous azalea seedlings. This is an exciting collection, a gift from Mark Crawford, Loch Laurel Nursery, in Georgia.
PLANT SALES

Since the last report, SFA Gardens has managed three successful plant sales (Fall 2016, Spring 2017, and Fall 2017). Weather was perfect for all three. The crop is managed by Dawn Stover, Jordan Cunningham, student assistants and volunteers.

Plant sales are in early October and April. Arranged alphabetically, there are usually 250 to 300 species or varieties available in blocks of 20 to 50.

Plant sales are also educational venues for local gardeners. All plants are signed and interpreted. Jeff Brewer, Art, demonstrating how not to carry a tree as Charles Bradbury wonders about it too.
Elyce Rodewald received American Association of University Women's Woman of the Year in Environmental Education Award. Mar 30, 2017

The monthly Les Reeves Lecture series is every second Thursday at 7 PM. A social before and plant raffle afterward is the normal venue. The past army of presenters represents some of the best of the best garden speakers in the South. Dawn Stover leading the charge on the plant raffle that follows each lecture.

Jocelyn Moore at the Nacogdoches Lake fishing extravaganza.
Elyce Rodewald is educating, entertaining and enlightening our youngest citizens.

Little Miss Princess Tea Party is one of the highlight events every spring.

There's a never ending program of educating, entertaining, and enlightening school kids via the SFA Gardens Environmental Education Program.
MOODY GARDENS PROJECT ON GALVESTON ISLAND

SFA Gardens has enjoyed an exciting 16 months of work on a research project at Moody Gardens. The project involves two partners: 1) Dr. Steve Wagner and Jo Taylor, Biology. 2) Dr. Ken Farrish, Environmental Science. Our primary focus is finding, planting and evaluating salt and hurricane tolerant plants for a changing climate. The project has had three graduate research assistant thesis projects.
SFA Gardens is home to the first Golden Kiwifruit crop in Texas. The small patch at the top of the first image produced a heavy crop in 2015 with low production in 2016 and 2017. A specialty crop block grant via the Texas Department of Agriculture has allowed the project to expand. The grant is shared with TAMU’s Tim Hartmann, Extension Specialist, and will serve as the foundation for his PhD work. Malcom Turner, SFA Gardens, has expanded the planting, erected the first “teepee” system in Texas, and he is responsible for weed control, fertility, irrigation and pruning and training.
JIMMY HINDS PARK

The Jimmy Hinds Park continues to progress. The past year has seen an expansion of the muscadine planting to provide the space for additional varieties. About an acre was cleared to provide more sunlight. Malcolm Turner built a three wire system to bring the vines to industry standard training. The Treehenge is a 70' circle of Taxodium distichum ‘Cascade Falls’ that continues to attract visitors from afar.
FRUIT EVALUATION PLOTS

The blueberry research plot is at the north end of the Pineywoods native Plant Center. This plot serves as a germplasm repository for numerous varieties and advanced selections, including clones from the breeding program at USDA Poplarville, Mississippi, the University of Georgia and the Nanjing Botanical Garden, Nanjing China.

Dr. Stephen Stringer, USDA Poplarville, MS visited the muscadine research plots April 19, 2017. He has numerous elite varieties in our study.

The fig planting has had a dozen new varieties added and is looking good at the south end of the Mast Arboretum.
SCULPTURE FOR ALL

This project is a juried competition to place about a dozen sculptures in the garden and is primarily managed by Dawn Stover, SFA Gardens, and Jeff Brewer, Art. This project brings a whole new arena of outside interest to the SFA Gardens program.
CHINA

July 22 – August 9, 2017. Dr. Creech was in China as a moderator and speaker in the International Botanical Congress at Shenzhen. The conference enjoyed over 7000 registrants with multiple sessions across a range of conference centers. Shenzhen is one of those built-from-the-ground up modern cities that has to be seen to be believed. While in China, Dr. Creech also travelled to 1) Changsha for kiwifruit research, 2) Jianjing for a Taxodium conference, 3) Ninghai at Yongfeng Nursery, 4) Shanghai for blueberries, and 5) Nanjing with host Professor Yin Yunlong.
NEW ZEALAND

Dr. Creech and Janet were in New Zealand April 25 – May 15, 2017. The first two weeks was a driving tour of the South island visiting gardens, nurseries, and tourist attractions. Most exciting for Dr. Creech was seeing the “Father of The Forest” kauri tree in the far north of the North Island. The last week was spent with the Stevenson family (Miko Asia) studying the care and culture of Kiwifruit in the Rotura region of production and touring the Seeka packing and storage facility.