

University/College Arboretum Toolkit

Introduction

This toolkit is meant to guide you through the ArbNet accreditation process, the steps to create a new arboretum, or building your arboretum's capacity to upgrade to a higher level of accreditation. The toolkit contains resources such as ArbNet template documents, as well as examples of the different elements that make up an arboretum from various ArbNet accredited arboreta. Overall, this should give you a more concrete understanding of what you need to create or enhance an arboretum.

Resources

Application

- Level I Sample Application
- Level II Sample Application
- Level III Sample Application
- Level IV Sample Application

Strategic Plan

- Mission statement overview
- Sample mission statement samples
- Sample arboretum plan
- Examples:
 - o Fullerton Arboretum at California State University
 - o Salve Regina University Arboretum (Ten-Year Plan on how to reach Level III Accreditation)
 - o University of California Davis Arboretum

Collections Policy & Management

- <u>Curation and Management</u> (session recording on curation, collections, and management techniques from the <u>2021 ArbNet Virtual Conference</u>)
- Sample Collections Policy
- Examples:
 - o <u>Haverford College Arboretum</u>
 - o The Botanic Garden of Smith College
 - o <u>University of Washington Botanic Garden</u>



Labeling & Mapping

- Example Physical Label
- Example physical labeling system: University of Guelph Arboretum
- <u>Label Making Comparison Guide</u> (An overview not comprehensive)
- <u>The Ins & Outs of Plant Records</u> (Workshop session recording on accessioning, key data to record, inventory and labeling, and mapping strategies from the <u>2021 ArbNet Virtual Conference</u>)
- Google My Maps Digital Labeling & Mapping (free)
- ArcGIS Online Account (free to make simple maps)
- Examples digital labeling & mapping systems:
 - o <u>University of Hawai'i Mānoa's Plant Finder</u>
 - o Purdue University's Purdue Arboretum Explorer
 - o <u>Elon University Botanical Garden</u>

Sustainability & Climate Adaptation

- <u>Sustainability Campus Landscape Guide</u> (Arbor Day Foundation)
- APGA Sustainability Index for Public Gardens
- Examples plans & initiatives:
 - o Frank A. Waugh Arboretum at the University of Massachusetts Amherst
 - o <u>Purdue University Arboretum</u> (Sustainability strategic initiatives)
 - o <u>Salisbury University Arboretum</u> (Highlights their green initiatives, projects and involvement in sustainable practices)
 - University of California Davis Arboretum and Public Garden Living Landscape
 Adaptation Plan

Tree Research

- <u>Colorado State University Arboretum</u> (Project focusing on better understanding what woody plants are best to grow in the Colorado region)
- Ohio State University: Chadwick Arboretum (Phenology study on woody plants)
- <u>University of Guelph Arboretum</u> (Elm Recovery Project-- assisting the recovery of white elm from Dutch elm disease by reintroducing genetically diverse populations of disease-tolerant elms to their landscape)

Conservation Projects/Programs

- <u>CPC Rare Plant Academy:</u> hub for learning and sharing, filled with resources centered around plant conservation
- <u>Donald E. Davis Arboretum at Auburn University</u> (Project focused on making the public more aware of the rare species, *Quercus boyntonii*)
- <u>Donald E. Davis Arboretum at Auburn University</u> (Founding member of the Alabama Plant Conservation Alliance, APCA)
- <u>University of California Davis Arboretum</u> (Part of the North American Plant Collection
 Consortium Multisite Oak Collection committed to make germplasm available for research and breeding)
 - Quercus Multisite (Provided by the American Public Gardens Association, APGA,
 Quercus was the first multi-institutional plant collections network collection, one of the
 goals is to expand and recruit gardens in southeast, southwest and Mexico to improve
 representation of oaks from those regions)
- <u>University of Guelph Arboretum</u> (Seed collection-aid conservation efforts in Canada and abroad)
- <u>University of Guelph Arboretum</u> (Rare Woody Plants of Ontario—est. to survey and document the status of over 20 species of rare woody plants)
- <u>University of Oxford Botanic Garden & Harcourt Arboretum</u> (Conservation project to save the endangered Chichibu birch (*Betula chichibuensis*))

Publications

- The Botanic Garden of Smith College
- <u>University of California Davis Arboretum</u> (Study looking at genetic distinctions among oaks in their arboretum, contributing to oak phylogeny)

Educational Programs

- <u>Seed Your Future</u> (Movement to promote horticulture and inspire people to pursue careers working with plants)
 - o <u>Student Page</u> (contains information about horticulture careers, scholarships, internships, internships, and many other types of information)
- <u>Panel discussion: Conversations about Careers in Tree-focused Fields</u> (recording for those still in school and interested in pursuing a career in botany, horticulture, conservation, restoration, etc., or those early in their careers, to hear from experts in tree focused fields discuss their career path, how they got to where they are now today, and provide advice - from the <u>2021 ArbNet</u> <u>Virtual Conference</u>)
- Example program: <u>University of California Davis Arboretum Arboretum Ambassadors</u> (opportunity for undergrads to lead tours, programs, and activities at the arboretum to become effective advocates for the environment)
- K-12 engagement:
 - o <u>Plant Heroes</u> (American Public Gardens Association series of nature-based educational/outreach content for 4-10 year olds)
 - o Educational tree resources (Arbor Day Foundation)
 - o <u>Virtual outreach K-12 bundles</u> (free) (The Morton Arboretum)
 - Scroll down to the "Celebrate Trees! Arbor Day Bundle" for tree-focused activities organized by grade - these can be downloaded for free through Arborversity.
 - <u>Link to register for free bundles in Arborversity</u> to access these bundles you
 must use Arborversity, The Morton Arboretum's virtual education platform,
 but creating an Arborversity account and accessing and downloading the
 activities is all free (quick "how to" video on how to do this).
 - o Educational resources and programs (Longwood Gardens)
 - o <u>Purdue University Arboretum</u> (activities for young learners)
 - o Example programming: <u>Donald E. Davis Arboretum at Auburn University</u>

Events

- 150 Ways to Celebrate Trees on Arbor Day (Arbor Day Foundation)
- Example: <u>Gabis Arboretum at Purdue University Northwest</u> (Outline of their events/activities for the year)

Tours

- <u>Connecticut College Arboretum</u> (Outlining their available guided and self-guided tours)
- The Scott Arboretum of Swarthmore College (Brochure for self-guided tour)
- Purdue University Arboretum (Pre-designed and create-your-own self-guided tours)

Newsletters

- <u>Fullerton Arboretum at California State University</u> (Publish a magazine twice a year to keep people informed of the projects at the arboretum)
- University of Idaho Arboretum & Botanical Garden

Steps to Becoming an ArbNet Accredited Arboretum (Level I)

1. Complete a Strategic Plan

a. A strategic plan defines the purpose and mission of the arboretum, its audience(s), and the types of plants that are grown to achieve that purpose or serve those audiences, provisions for the maintenance and care of the plants, and provisions for the continuing operation of the organization through time with a clear succession plan. Your plan may be written into the university's plan

2. Governance

a. A governing board, a group of people, or authority that is dedicated to the arboretum plan and its continuation beyond the efforts of a single individual. Such an organizational/governance group will affirm fulfillment of standards and authorize participation as an accredited arboretum

3. Staff

a. Employees or volunteers who ensure fulfillment of the arboretum plan and provide for the basic needs of the arboretum collection and functions of the arboretum.(i.e. grounds crew, student interns/volunteers)

4. Collections

- a. 25 + species of woody plants and label them or mapped in some way (can be mapped online)
- b. All trees do not need to be labeled, just a selection of 25 species for easy public awareness

5. Outreach/Education

- a. Host at least one event, open to the general public
 - i. Arbor Day
 - ii. Earth Day with a tree related event
 - iii. Walking Tour
 - iv. Tree Planting
 - v. Tree Care Education
 - vi. Collaborate with professors or other researchers on campus to utilize the trees and plants for learning, curriculum, observational studies, etc.