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The ArbNet Arboretum Accreditation Program provides standards and guidelines for the establishment and development of an arboretum. The goals of the accreditation program are to:

- 1. foster the establishment and professionalism of arboreta;
- 2. identify arboreta capable of participating or collaborating in certain scientific, collections, or conservation activities; and
- 3. advance the planting, study, and conservation of trees to improve the world.

Arboreta that are accredited are encouraged to become leaders and serve as models to promote professional development and engagement with other arboreta.

Different levels of accreditation have been established to recognize arboreta at varying degrees of development, capacity, and professionalism. Accredited arboreta are encouraged to continue their growth and development to achieve higher professional standards and can apply to upgrade to a higher level when they are ready at any point after their initial accreditation. Accreditation must be renewed every five years and arboreta will receive a renewal reminder several months prior to the arboretum contact listed on this form.

Arboreta and public gardens are eligible to apply for accreditation by submitting this application along with supporting documentation to demonstrate their level of achievement according to the specified standards. Once the application is completed, a decision will usually be made within four weeks.

The ArbNet Arboretum Accreditation Program is sponsored and supported by The Morton Arboretum, Botanic Gardens Conservation International (BGCI), and the American Public Gardens Association (APGA).

For resources and information related to creating, running, and growing an arboretum, please see the ArbNet Resources pages, which include resources on Starting an Arboretum and Accreditation, among many other topics. Additionally, here are links to sample applications that will allow you to see the full application in its entirety, along with sample responses:

- Level I sample application
- Level II sample application
- Level III sample application
- Level IV sample application

If you have any concerns about being able to reach particular criteria, please reach out to us. For more information regarding specific accreditation requirements

For more information regarding specific accreditation requirements:

Visit: https://www.arbnet.org/arboretum-accreditation-program

Email: arbnet@mortonarb.org

Call: 630-310-7013

Arboretum Information

Name of Arboretum

Sample Level IV Arboretum

Address or PO Box

321 Tree Rd

City State/Province ZIP/Postal Code (If applicable)

Sample City Sample State 00000

Country

United States

Latitude and Longitude

41.40338, 2.17403

For information on how to find your Latitude and Longitude see Google Maps Support Page

Acres Hectares

1234

Is your mailing address different from above?

No

Website

www.samplearb.org

Type of Organization (REQUIRED)

Is acting as an arboretum and / or botanical garden the primary purpose of your organization?

Yes

What other roles does your organization have? Please check all that apply

- Business / Corporate Campus
- Cemetery
- Community / Organization / Neighborhood Group
- Golf Course
- Historical Site
- Hospital / Medical Campus
- Museum

VNature Preserve

√Nonprofit

- Place of Worship
- Public Park
- Retirement Community
- School
- Town / City
- University/College
- Zoo
- Other

If you selected "Other", from the checklist above, please briefly describe:

Arboretum Contact (for ArbNet purposes)

Prefix First Name Last Name Title Phone Email Address

Ted Tree Curator 0 ted@samplearb.org

Is the person submitting this application different than the contact listed above? **No**

Authorization and Verification

The chairperson or leader of the applicant arboretum's governing board, organizational group, or authority (corresponding to Section I. below) must approve this application, specifically verifying the accuracy and authenticity of the information it contains.

Approval is indicated by placement below of this individual's name, title or role at arboretum, and contact information.

Authorizing / Verifying Governance Leader (other than individual submitting application):

Prefix First Name Last Name Title Phone Email Address

Sheila Shrub President and CEO 0 sheila@samplearb.org

How did you hear about ArbNet?

Check all that apply:

- Website
- Newsletter
- Facebook
- Instagram
- Arborist

VAnother Arboretum

- ArbNet / Morton Arboretum Representative
- ✓Conference / Symposium / Workshop
- Other

Other source that you heard about ArbNet

ARBORETUM ACCREDITATION STANDARDS

Accreditation standards are outlined on the ArbNet website and described in each of the following application sections.

FOUR LEVELS OF ACCREDITATION

Please use this chart as a reference. The levels of accreditation recognize arboreta with different degrees of development, capacity, and professionalism.

| | LEVEL! | LEVEL II | LEVEL III | LEVELIN |
|---|--------|----------|-----------|---------|
| Arboretum plan | | | - | |
| Organizational or governance group | | - | • | |
| Labeled tree and woody plant taxa | | | | |
| 25+ | | | | |
| 100+ | | • | | |
| 500+ | | | | |
| Staff or volunteer support | | | | |
| Volunteer or paid | | | | |
| Paid management | | | | |
| Curator | | | | |
| Scientific or conservation staff | | | | |
| Public dimension | | | | |
| Public access and at least one event per year | • | | | |
| Enhanced public and educational programs | , | - | - | - |
| Substantial educational programming | | | | |
| Collections policy | | _ | - | - |
| Collaboration with other arboreta | | | | |
| Collections data sharing with networked collections | # | | • | • |
| Tree science, planting, and conservation activities | | | - | - |
| Substantial and integrated woody plant conservation | | | | • |

Arboretum accreditation level sought **Level IV**

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If you wish to share additional arboretum planning or guiding documents, there will be the opportunity to attach more files at the end of the application, or you may email them to arbnet@mortonarb.org.

GENERAL ACCREDITATION REQUIREMENTS

1. Arboretum Plans

Documentation such as an organizational plan, strategic plan, site plan, or other, that defines the mission and purpose of the arboretum, its audience(s), the types of plants that are to be grown to achieve that purpose and 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. A sample organizational plan can be found here on ArbNet's website.

Provide the mission of your arboretum and a brief description or outline of the type and scope of the plan for your arboretum. Attach or link to the planning documents (organizational, management, comprehensive/site plan, strategic plan, sustainability plan/policy, etc.), if applicable.

Mission Statement

The mission of the Sample Level IV Arboretum is to enrich life by perpetuating tropical plants, ecosystems, and cultural heritage.

Brief description or outline of plan(s):

The Arboretum is comprised of 5 different gardens and preserves which are located throughout the State (Site 1, Site 2, Site 3, Site 4, and Site 5). We have a master landscaping plan for SIte 2 and Site 4, as well as a Strategic Plan for the entire Arboretum as a whole. Please find these documents attached. Part of the historic Site 4 is located in the Bay. The Arboretum developed a plan to create a special subzone for the bay within the Conservation District of the State. Foundational to this plan is the management structure which created a partnership with the private landowner (the Arboretum), the State Department of Land and Natural Resources (DLNR), and the community (via the Bay Resource Advisory Committee). We believe this proactive approach will create a true traditional land division management strategy that effectively integrates the management of the cultural, terrestrial, aquatic and marine resources and balances the management of these resources with the desires to see this area used for conservation, research, education, and limited recreation. If we are successful in this visionary approach, the Bay will become a place of refuge for future generations to love and enjoy just as we have. In June 2013 the State designated the land, the beach, and the bay as the Arboretum Bay Special Subzone. The recent Bay Master Plan consists of the following documents (shared via links and attachments below).

Optional: Attach your arboretum planning / guiding document or policy here (max individual file size 25MB; max aggregate / total file size for application 35MB):

Optional: Attach another planning/guiding document here (max individual file size 25MB; max aggregate / total file size for application 35MB):

Optional: Link to your arboretum planning / guiding document here:

Optional: Link to another planning/guiding document here:

2. Organizational or Governance Group

A governing board, 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.

Describe the nature of your governance board or authority.

The Arboretum is the only sample climate arboretum with a charter from the United States Congress. Federal charters for private nonprofit entities, such as the Arboretum charter, have been granted by Congress only rarely and then only in the circumstance that a compelling case has been made to the Congress that the proposed organization will serve an important national and public need. The Arboretum's Congressional Charter included the establishment of a Board of Trustees to govern the organization. The Arboretum's Board is dedicated to carrying out the mission and objectives of the organization. Members of the Board of Trustees meet two times per year to review progress, make policy decisions, and approve budgets and programs, based on the recommendations of the Director and his staff. The Arboretum's governing board consists of 32 individuals with varied backgrounds and interests. All have a high interest in plant conservation, botanical research, and related education. In addition, a number of members of the Board are experienced and successful in financial management and fundraising. Trustees are elected by the Board. Board service is voluntary and no compensation is received. The governing board of the Arboretum has empowered the President and CEO to make the type of decisions and commitments that are in line with authorization of participation and affirmation of fulfillment of standards.

Optional: Number of people in your governing group: **32**

Optional: Attach any relevant governing documents or policies (max individual file size 25MB; max aggregate / total file size for application 35MB).

Optional: Additional documents or policies relating to the Governance Group, if needed.(max individual file size 25MB; max aggregate / total file size for application 35MB)

Optional: Provide link to any relevant governing documents or policies

Optional: Additional link to your Governing Documents, if needed.

3. Arboretum Staff or Volunteer Support

Resources and examples about staff and volunteer management can be found on the Arboretum Management Resources page of the ArbNet website.

a. Levels II, III & IV

One or more paid arboretum employees who have job responsibilities that specifically include management or operation of the arboretum in fulfillment of the arboretum plan (e.g. president/director, horticulturists, arborists, education and engagement staff, etc.).

Describe the staff responsible for management or operations of the arboretum, including staff dedicated to educational programming for Levels III & IV.

A paid staff of 210 full-time, 120 part-time, and 120 temporary (seasonal) employees, in addition to 900 volunteers (supplying 51,000 hours per year), support the work of the Arboretum across six different departments: Collections & Facilities, Science & Conservation, Learning & Engagement, Finance, Development, and Marketing & Communication. (Numbers of full- and part-time are an approximate average, year-

round; the seasonal number represents peak.)

b. Levels III & IV-

A dedicated curator, or curator-equivalent employee (e.g. collections manager), who is focused on the care and development of the arboretum collection, in accordance with the arboretum plan and collections policy.

Provide the job title of the curator or curator-equivalent employee(s). **Curator**

c. Levels IV

A scientific and/or conservation staff and capability to collaborate on scientific or conservation activities with other arboreta or organizations related to trees.

Describe the scientific and/or conservation staff.

The Arboretum is dedicated to preserving tropical plant diversity and stemming the tide of extinction - through plant exploration, propagation, habitat restoration, scientific research, and education. We have a relatively large Science and Conservation staff including botanists, horticulture staff, cultural practitioners, a conservation biologist, field collectors and seed bank staff. We also have the second largest herbarium in the state. Please see as examples of the research being done at the Arboretum and the attached CV's for the Director of Science and Conservation, Director of the Tree Institute, Herbarium Manager, Director of Site 2, and Seed Bank Manager. The Director of Science and Conservation occupies the Named Chair of Botany and came to the Arboretum twenty years ago. He is the Senior Research Botanist for the organization. Research specialties are systematic studies of tropical plants, floristics, and invasive plant species. His systematic research focuses on Pacific and neotropical members of the large and diverse Rubiaceae family, which includes coffee, quinine, and gardenias. He also studies the Monimiaceae family of the Malagasy region and tropical America. The Seed Bank Manager's floristic research includes a multi-institutional collaboration on a "Vascular Flora of the Marquesas Islands," contributing partial treatment of the Rubiaceae for "Flora Mesoamericana," and participating in a project to develop an annotated checklist of the plants of Pohnpei and Kosrae. His research on invasive species includes restoration efforts targeting Hawai'i an dryland forest and exotic species invasion in Mauritius wet forest communities. He has carried out extensive fieldwork in Hawai'i, Samoa, the Marquesas, Micronesia, New Caledonia, Mexico, and the Malagasy region. The Director of the Tree Institute was appointed 12 years ago. She is an authority on the conservation and use of Sample Tree, conducting horticultural and ethnobotanical studies on this important Pacific staple crop for 30 years. Her extensive fieldwork on over 50 islands in Micronesia, Polynesia, and Melanesia enabled the Arboretum to establish the world's largest collection of breadfruit at its Garden & Preserve. The Sample Tree Institute was created to promote the conservation and use of the species for food and reforestation. She is Adjunct Professor at the University of Sample State in the Dept of Tropical Plant and Soil Sciences. She is the author of more than 80 publications on breadfruit, ethnobotany, horticulture, and native plant conservation. The Herbarium Manager directs the research library and herbarium at headquarters, curates the Arboretum's collections of Rubiaceae and of Zingiberales, and serves on the board of the Heliconia Society International. He is editor of Allertonia, the Arboretum's series of occasional papers.

Number of scientific, research, and/or conservation staff: **5**

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4. Arboretum Collections

Information and resources related to plant collections management and curation is available on the Tree Collections Resource page of the ArbNet website.

a. Collections Activities Checklist

Please check all activities that your arboretum participates Please describe your woody plant collections management

Please describe your woody plant collections management activities not covered by the above checklist:

- **V**Collections policy (covers records management, accessioning, deaccessioning, etc.)
- **√**Regular collections evaluation
- Conducting or participating in woody plant evaluation trials
- **V**Collections manager or curator
- VHerbarium
- **V**Seed bank
- **√**Plant exploration program
- ✓Collections conservation (holding and safeguarding plants of collections or conservation value on behalf of the collective interests of the profession ex: rare and endangered plants, legacy cultivars, etc.)
- **√**Woody plant nursery
- Woody plant breeding program
- ✓Accredited or officially recognized collection(s) (describe below in part g.)
- Collections strategic plan (develops and plans for the themes and direction of your collections - could be a standalone plan or part of your greater organizationwide strategic plan or expanded collections policy)
- Other activities not listed that support woody plant collections management (describe below)

b. Labeled Tree and Woody Plant Taxa

The number of species, subspecies, cultivars, varieties, etc. being grown as part of the collection in accordance with the arboretum plan. Plants in the arboretum's collection must be labeled in some way (by physical or, digital labels, walking map or website map with ID)

to identify them taxonomically, including scientific name and cultivar if applicable, and documented in some way so that information on their acquisition (if available - source or origin, date of acquisition, etc.) is available for access. Minimum numbers of labeled woody taxa (species, subspecies, cultivars, varieties, etc) are:

- 25+ (Level I)
- 100+ (Level II)
- 500+ (Levels III & IV)

Indicate the number of different woody plant taxa in the collection that are labeled: **500 and over**

c. Woody Plant Taxa

Indicate the total number of tree and other woody plant taxa in your collections (both labeled and unlabeled):

3255

d. Optional: Individual Woody Plants

Indicate the total number of trees and other woody plant individuals in your collections: **10731**

e. Describe the method for labeling and documenting the number of trees/woody plant taxa We label each tree and shrub with an individual stainless steel tag and the following information: Accession ID and plant out number, Genus species, Family, Collector Date and ID, Short Locality, Provenance Type, and IUCN, PEP and CPC statuses. For a smaller subset of trees and shrubs we provide additional interpretive signage for our visitors. Additionally, all of our collections are digitally labeled and available online at: www.samplearb.org/database

f. Collections database

Provide the link to your collections database, if possible.

www.samplearb.org/database

Is this a searchable, open access database (e.g., collection list uploaded to BGCI PlantSearch)?

Yes

If your collection species list is not shared or accessible online, please attach here: (optional, attachment)(max individual file size 25MB; max aggregate / total file size for application 35MB)

g. List any special taxonomic, geographic, ecological, or conservation collections of note (e.g. oaks; Acer; dwarf conifers; halophytes; woody plants of Madagascar; etc.):

Please see our attached document of special collections, which are focused on fruit trees for food and reforestation.

h. Arboretum Collections Policy (Tree Care Plan) (required for Level II, III & IV)

A collections policy describes the purpose, development, and professional management of the plants in the arboretum collection, in accordance with standards developed in the public garden and museum fields. Such a policy and related practices includes a rationale for holding the particular collections of the arboretum, collections inventory, and record-keeping practices. Examples are available on the Tree Collections Resources page of the ArbNet website.

Describe and outline the elements of the collections policy.

The Arboretum collections policy details the need for a policy, the collections goals, the types of collections, the policies and procedures pertaining to collections and the use of collections by staff and outside agencies. Please see the attached document. In addition to this policy, Site 2 has its own policy pertaining to fruit tree acquisition and distribution, which appended to the Arboretum's attached main collections policy.

Attach arboretum collections policy, if applicable.(max individual file size 25MB; max aggregate / total file size for application 35MB)

Arboretum collections policy link, if applicable

Sharing of plant collections data with BGCI's PlantSearch, a networked collections database, is a requirement for level III and IV accreditation. Botanical Gardens Conservation International (BGCI) is an international organization with a mission to ensure the conservation of threatened plants worldwide. Its global database provides information on the plants kept in living collections around the world. Your data will help conservationists, policy makers and planners, educators, and others working to save plant diversity—and can help measure the threatened plants safely in cultivation somewhere in the world. The location of your plants is kept hidden from PlantSearch users so you will not face any security issues regarding rare or valuable plants. To share your collections data, navigate to BGCI's website, where detailed instructions are provided.

Have you shared your arboretum's data with PlantSearch? **Yes**

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If you wish to share additional arboretum planning or guiding documents, there will be the opportunity to attach more files at the end of the application, or you may email them to arbnet@mortonarb.org.

5. Public Dimension / Educational and Public Programming

Examples and resources are available on the Education and Public Engagement and Community and Urban Forestry resource pages of the ArbNet website.

a. Education & Community Engagement Tree Activities Checklist

Please check all activities that your arboretum participates in:

Open public access and events

VAnnual tree events (Arbor Day, International Forestry Day/week)

√Self-guided walking tours

√Giving engagement and outreach presentations for other organizations and groups

Hosting conferences or similar events

∀Exhibitions and/or interpretive signage

Recurring public programming

√Guided walking/ tram tours

✓pocent training & opportunities

√Conference (or similar venue) presentations

VCourse/class/workshop offerings

VHosting webinars/ seminars

- Community/citizen science programs
- Çhildren's Garden
- **V**School programs

Extensive / enhanced educational programming

- ✓Articulated engagement philosophy or interpretive plan with intended outcomes and assessment plan
- Plant selection, care, and/or pest/disease consultation & support
- ✓Educational and outreach publications
- Digital content podcasts, online courses, social media outreach, etc
- ✓Ethnobotanical engagement (indigenous knowledge content & co-creation with community partners)
- ✓Accredited educational or training programs
- VInternship opportunities ■
- ✓Summer/ seasonal camps

Urban & community forestry

- **√**Urban and community agricultural and food forest programs and projects
- Environmental justice and tree equity programs and projects
- Urban and community greening efforts
- Supporting the creation of new accredited arboreta

Other

VOther activities not listed that support education and engagement with trees and other woody plants (describe below)

Please describe your educational and engagement activities not covered by the above checklist:

Plant sale

If Level III or IV accreditation is selected:

b. Arboretum Public Dimension and Substantial Educational and Public Programming

A public dimension that includes some level of public access along with substantial public programming beyond the basic level required for Level I & II accreditation. Public events or educational programs each year must be related to trees (e.g. tree identification, forest ecology, conservation, collections, or some other tree-focused aspect of the arboretum mission or master plan).

Describe how the arboretum is open or accessible to the public, and describe your substantial education programs related to trees, woody plants, forest ecology, conservation, and other related topics. Provide a description of your overarching program plan including your education program strategy, number of outcome-based education programs, and explain how they are evaluated. Provide a link to your programming and/or course offering page, if possible.

We have a variety of public events such as Arbor Day, plant sales, art exhibits, workshops, lectures, symposia, school visits, fundraising events and both guided and self-guided tours. This September, we partnered with local conservation groups to host a conservation expo – a special three-day conservation event for IUCN Congress delegates, attendees, arboretum members and the broader community. For the past 30 years, we have successfully developed and run courses designed for graduate students in tropical ethnobotany, biodiversity and conservation biology, environmental journalism, physician and health care professional development, college professors' review of introductory biology, and we offer a horticultural internship. This year, we offered the thirteenth science teachers' enrichment program in tropical biology with the focus on science teachers in the middle and high school levels. We also run summer nature adventure camps for ages 7 and up, as well as occasional workshops and lectures. Our website has a listing of our recurring programs at samplearb.org/events We established an urban forestry community program in 2009 that is focused on planting fruit trees and food forests throughout our region. Evaluation of these programs varies by type. Some are grant funded and have specific criteria that must be fulfilled in order to continue. Others are evaluated by program participants and directors.

Educational and public program file upload if applicable (max individual file size 25MB; max aggregate / total file size for application 35MB)

Additional educational and public program file upload if applicable (max individual file size 25MB; max aggregate / total file size for application 35MB)

Educational and public program document link if applicable

Additional educational and public program document link if applicable

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If you wish to share additional arboretum planning or guiding documents, there will be the opportunity to attach more files at the end of the application, or you may email them to arbnet@mortonarb.org.

6. COLLABORATION (Required for Level III & IV)

A professional capability to collaborate in some way with other arboreta or relevant organizations, preferably with evidence of existing collaboration. Examples of collaboration activities with other organizations may include plant evaluations, research projects, in situ or ex situ conservation projects, educational programs, exhibits, public events, interpretation, collecting expeditions, plant exchanges, professional meetings, and co-authoring scientific research papers. The goal of this question is to understand the diversity, breadth, and depth of your collaborations and types of collaborative activities. Information and resources related to plant collections management and curation is available on the Collaboration and Networks resource page of the ArbNet website.

a. Collaboration Checklist

Please check all organization types that your arboretum collaborates with. (required checklist)

- **V**Other arboreta and public gardens
- **V**Botanical garden associations/ societies
- **√**\$eed banks and other germplasm repositories
- **√**Conservation, restoration, ecological, and/or environmental organizations

- Invasive species networks or organizations
- Dendrology and/or forestry associations/societies
- Arborist/arboriculture associations/ societies
- **V**Indigenous peoples groups and organizations
- **√**Community groups and organizations
- **V**Universities/ colleges
- V\$chools and/or student groups
- **√**Government agencies
- Non-governmental organizations (NGOs)
- **√**Nature preserves and/or parklands
- Plant, botanical, biological, and/or horticultural societies/ associations
- Garden clubs
- Landscape architecture and design societies/ associations
- Businesses (e.g. arborist or landscaping companies)
- Zoos and/or aquariums
- Zoo, aquarium, or wildlife societies/ associations
- Museum
- Museum societies/associations
- Other organization types not listed (describe below)

Please describe the Other organization type

b. Collaboration descriptions

Elaborate on your collaborations selected from the above checklist and provide examples of existing collaborations with other arboreta and related organizations. (required textbox)

We actively collaborate with other arboreta, such as The Tropical Arboretum, as well as U.S. Fish & Wildlife Service, the Nature Conservancy, the State's Dept. of Land & Natural Resources and Plant Extinction Prevention Program's restoration and species recovery projects. We also collaborate with the Army, the State University and other local organizations such as the Conservation Alliance and private landowners.

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7. Tree Science, Planting, and Conservation (required for Level III & IV)

Examples and resources are available on the Tree Science and Conservation Resources page of the ArbNet website.

a. Tree Conservation & Science Action Checklist (required for Level IV)

Please check all activities that your arboretum participates in. Below the checklist, provide details in part 7b (levels III and IV) and part 7c (level IV) as appropriate, about the activities that you checked in the list.

Links and Acronyms (for reference)

Global Conservation Consortia (GCC)

International Union for Conservation of Nature (IUCN) Global Tree Specialist Group

Botanic Gardens Conservation International (BGCI)

BGCI Conservation Action Tracker

Public Gardens as Sentinels against Invasive Plants (PGSIP)

General capacity building for threatened tree conservation

- ✓Promote tree conservation through your networks, conferences, presentations, social media, and arboretum website
- Host or share GCC educational content (e.g GCC Species Steward panels and/or taxa information sheets; these are provided by the GCC Coordinators)
- Carry out education/awareness raising and interpretation among your visitors for threatened trees
- ✓Host tree conservation conferences, training workshops, or related meetings (e.g. IŲCN Global Tree Specialist Group meeting)
- ✓Contribute content, expertise, or other support to tree conservation training materials, such as guidance briefs, manuals, or reports
- Host employee(s) who is an active member of the IUCN Global Tree Specialist Group VReport and share information on your tree conservation work using the BGCI Global Tree Portal, including the Conservation Action Tracker

Ex situ tree conservation

- ✓Enable researchers or conservationists external to your organization to use your grounds, collections, and/or resources for tree conservation and science work/ research
- ✓Formal participation in a ex situ conservation project focused on threatened tree species (provide project name in part 7b below)
- ✓Partner with Indigenous communities to support culturally significant ex situ tree conservation and restoration activities
- ✓Participate in Public Gardens as Sentinels against Invasive Plants (PGSIP) by collecting and sharing data about plants escaping from cultivation in your arboretum
- ✓Share threatened tree germplasm/material with other institutions (e.g. for propagation, living collections, seed banks, herbaria, etc)
- **V**pevelop protocols for propagation of threatened tree germplasm ■
- ✓Host and manage a native or threatened tree nursery
- Undertake planting trials for threatened trees
- Conduct conservation genetics research on ex situ collections of threatened tree species
- **★Threatened trees included in your collection**
- √Threatened trees included in your collection with interpretation aimed at conservation awareness
- Engage in collections climate change adaptation planning and activities
- Provide support to other arboreta to improve their capacity to participate in threatened tree conservation activities (e.g. provide training, financial support, mentorship, threatened tree germplasm/seeds, etc.)
- VHost a metacollection site as a designated Species Steward for one of the GCCs

In situ tree conservation

- ✓Formal participation in a in situ conservation project focused on threatened tree species (provide project name in part 7b below)
- ✓Partner with Indigenous communities to support culturally significant in situ tree conservation and restoration activities
- ✓Participate in in situ expeditions and surveys to seek out and monitor threatened tree populations
- VHost and manage a native or threatened tree nursery to repopulate threatened tree species in situ
- Conduct conservation genetics research on in situ populations of threatened tree

species

Contribute to red listing initiative for trees within a taxonomic group or region Lead red listing initiative for trees within a taxonomic group or region

Engage in or support in situ habitat restoration or habitat protection in support of priority threatened tree species or ecosystems (e.g. invasive species removal, land

protection, reforestation, facilitating sustainable management planning)

✓Engage in or support in situ conservation and recovery of threatened tree species in the wild (e.g. population monitoring/surveys, reintroduction of seeds/seedlings, assisted migration)

VCarry out conservation planning for threatened tree species, e.g. individual species recovery plans, or multi-species plans

Other activites not listed that support integrated woody plant conservation and science - Other - describe in part 7b (Level III and IV) and/or part 7c (Level IV only) below, as appropriate

b. Tree science, planting, and conservation research activities (required for Level III & IV)

Active projects and programs related to tree science, forest ecology, strategic planting, or conservation research. These activities should include direct research or the facilitation of scientific activities beyond public educational activities, in which data are acquired to solve problems in tree science or tree conservation. Examples include conducting plant trials; habitat monitoring; detecting pests and diseases; hosting collections-based research projects; and conducting research in forest ecology, physiology, systematics, seed and tissue banking, horticulture and tree care. You may refer to the options provided in the Tree Conservation & Science Action checklist for additional examples of important tree conservation activities.

Describe the arboretum's research activities related to tree science, planting, and/or conservation. Include a list of relevant references, reports, or peer-reviewed journal articles. Currently we have a large collection of threatened trees for which we actively develop collecting trips, propagation protocols and reintroduction strategies. We actively share plant material with the government and other botanic gardens and universities. We are developing the State Strategy for Plant Conservation as a supplement to the Global Strategy, for the rarest trees in the State. We manage reintroductions and invasive removal in all of our sites.

Substantial and integrated tree and other woody plant conservation, including both *ex situ* (outside of the natural habitat, for example at the arboretum) and *in situ* (within the natural habitat of the species) conservation, is required for Level IV accreditation. For more information see BGCI's Integrated conservation of tree species by botanic gardens: A reference manual (Oldfield & Newton 2012), particularly Figure 1 on page 15 copied below:

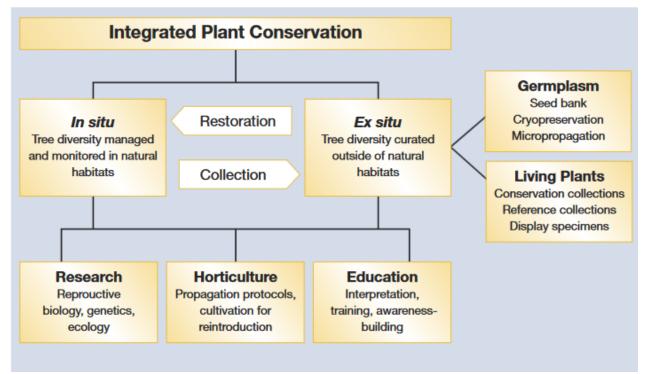


Figure 1 from Oldfield & Newton 2012. Integrated plant conservation combines in situ (on-site) and ex situ (off-site) conservation approaches to support species survival. In situ conservation protects species in their native habitat, while ex situ conservation ensures plant material is available for research, horticulture, and education activities that ultimately support reintroduction efforts, to prevent species from going extinct. (Adapted from Kramer et al., 2011)

Collections and Ex Situ Conservation

Institutional capacity, stability, and commitment to hold and safeguard plants of collections or conservation value. Describe specific collections of value and interest (i.e. endangered species, legacy cultivars, etc).

The Arboretum has an extensive collection of rare and endangered native species native to the State, of which 42 taxa have fewer than 50 individuals remaining in the wild. The provenance of our collections is 60% wild or wild source in cultivation. We also cultivate a wide range of threatened and endangered (T&E) non-native tropical flora. Including native species, we have approximately 2,500 T&E plants representing 176 taxa at Site 2 alone. In all of the Arboretum's gardens and preserves we cultivate roughly 15,000 T&E plants, of which 3,300 are plants with fewer than 50 individuals remaining in the wild.

Please enter the percent of wild collected woody plants in your collection: **60**

In Situ Conservation

Describe how the arboretum is engaging in conservation efforts and highlight your key programs or initiatives that aim to support in situ conservation and/or habitat restoration for threatened tree species and/or ecosystems. Please list the species or ecosystems you are working with and explicitly state how your efforts contribute to the in situ conservation outcome for that species.

We have conducted red listing workshops for native State species: Species X, Species Y, and Species Z, and are hoping to conduct more for Species A and Species B.

Discovery of rare endemic species and collection of seeds and other materials for propagation and ex situ conservation has been a core part of the Arboretum's effort since the Garden was founded. Our staff of field botanists have made thousands of collecting expeditions throughout the State and nearby areas. Adapting to the sometimes extremely challenging habitats in which they work, our field biologists have pioneered rough-terrain and high-cliff climbing techniques to gather seeds of rare species, some of them now extinct in the wild, for use in reintroduction efforts. Over the past 20 years, species that were previously unknown to science have been discovered by our arboretum botanists and roughly two dozen species in the State that were thought to be extinct have been rediscovered by these intrepid scientists (see attached documents). The discovery of unknown species is central to conservation efforts, as species cannot be saved if we do not know that they exist, where they are located, and that they are endangered. The work of the conservation staff includes a wide range of activities that support its primary plant conservation strategies, including projects to control alien species, watershed management, ecological monitoring, and conservation education. Since it was established in 1970, the Sample Level IV Arboretum has been a leader in the conservation of plants in the State and the greater region.

Optional: Science and conservation file upload (max individual file size 25MB; max aggregate / total file size for application 35MB)

Optional: Additional science and conservation file upload (max individual file size 25MB; max aggregate / total file size for application 35MB)

Optional: Science and conservation link, if applicable

Optional: Additional science and conservation link, if applicable

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Optional additional accreditation comments or explanation

Additional Attachments

If you wish to share additional arboretum planning or guiding documents, there will be the opportunity to attach more files at the end of the application, or you may email them to arbnet@mortonarb.org.

Additional Document 1 (max individual file size 25MB; max aggregate / total file size for application 35MB)

Additional Document 2 (max individual file size 25MB; max aggregate / total file size for application 35MB)

Photos

Please attach at least two photos of your arboretum (high resolution JPEG format in landscape/horizontal orientation) with your application for use on the ArbNet website.

Landscape Image 1 (max individual file size 25MB; max aggregate / total file size for application 35MB)

Landscape Image 2 (max individual file size 25MB; max aggregate / total file size for application

35MB)

Landscape Image 3 (max individual file size 25MB; max aggregate / total file size for application 35MB)

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Data Information

In compliance with the 2018 EU "General Data Protection Regulations", ArbNet has to ensure that EU residents agree to ArbNet using your information provided for processing and evaluating your accreditation application. By instructing us to process your application, your data will be transferred outside of the European Economic Area to the United States, kept secure, and will not be shared with a third party. You have the right to revoke your consent at any time by contacting us at arbnet@mortonarb.org. If you chose to be reviewed for our reciprocal accreditation program with BGCI (BGCI Botanic Garden Accreditation), ArbNet will share your information with BGCI.

The uses of your information, dependent on the success of your accreditation application, are as follows:

If you are a successful applicant, any personal and institutional data you have provided will be kept by ArbNet for five years, the length of the accreditation period, so that we can contact you in relation to the set up and administration of your accreditation, to provide information useful to maintain and/or upgrade your accreditation (e.g., new resources, opportunities, etc.), and to provide information on the accreditation renewal process as you approach the five year limit of your accreditation. ArbNet will use the institutional data provided in your application to create a website listing in the Morton Register, and potentially to promote your institution on our website, in our newsletter, and through our social media channels. ArbNet may also use your arboretum's institutional (not personal) de-identified aggregate summary data for sector-wide reporting.

If you are an unsuccessful applicant, the personal and institutional information you have provided will be kept by ArbNet for five years, so that we can contact you to help you achieve accreditation at a future date.

Mailing List Consent

want to be added to ArbNet's mailing list for quarterly newsletters and occasional informational updates.

Data Consent

✓ArbNet may use the institutional information (not personal data) I provide for conducting sector-wide analyses for the purpose of research on institutional capacities, networking, and strengthening the garden and arboretum community, as well as populating external datasets (e.g., BGCI GardenSearch; BGCI PlantSearch).

THE MORTON ARBORETUM EXPRESSLY DISCLAIM ANY RESPONSIBILITY WITH PERFORMING ANY OBLIGATIONS ON BEHALF OF THE MEMBER ORGANIZATION WHICH MAY BE REQUIRED HEREUNDER AND MEMBER ORGANIZATION RELEASES THE MORTON ARBORETUM FROM ANY LIABILITY IN CONNECTION WITH ANY SUCH OBLIGATIONS. MEMBER ORGANIZATION HEREBY ASSUMES ALL RISK IN CONNECTION WITH THE OBLIGATIONS REQUIRED OF MEMBER ORGANIZATION HEREUNDER AND MEMBER ORGANIZATION SHALL INDEMNIFY AND HOLD HARMLESS THE MORTON ARBORETUM AND EACH OF ITS OFFICERS, DIRECTORS, AGENTS, CONTRACTORS, LICENSEES, EMPLOYEES AND TRUSTEES AGAINST AND FROM ANY AND ALL THIRD PARTY CLAIMS, LIABILITIES AND

| DAMAGES ARISING OUT OF OR IN ANY WAY CONNECTED TO THE OBLIGATIONS OF MEMBER ORGANIZATION HEREUNDER. |
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