

# LAUKAHI NETWORK PLAN 2019 - 2023

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The Hawaiian Islands are home to some of the most unique and diverse ecosystems on our planet. Yet these ecosystems are also among the most threatened of any in the world, with hundreds of native plant species in danger of extinction. Conservation programs in our state have long collaborated to preserve and restore the plant life essential to the natural and cultural heritage of our island home.

Every native Hawaiian plant has value. No matter how small or large, common or rare, popular or unknown, each is unique and precious. When plant populations decline, life that depends on them also declines. Severing ecological relationships has consequences that cascade through the natural environment and into our own. Native plants, their histories and relationships with other organisms have much to teach us about how life has been and should be balanced in our islands.

Flourishing habitats for native plants protect our watersheds, which provide us with safe drinking water, prevent runoff from polluting our oceans, minimize dangerous flooding, and buffer us against harmful effects of climate change. Native plants are the foundation for native ecosystems, home to countless other unique native animals, such as snails, bats, birds and insects. Loss of plant life degrades precious ecosystems that sustain all life, including humans.

Native plants also have a fundamental role in Hawaiian culture. Conserving them supports traditional practices and preserves spiritual connections between all people and our land. As the ‘ālo noeau, or Hawaiian proverb, states: I ola ‘oe, i ola mākou nei - My life is dependent on yours, and your life is dependent on me.

## **About Laukahi**

Laukahi, the Hawai‘i Plant Conservation Network, is a nonprofit organization that coordinates a voluntary alliance of agencies, organizations and individuals dedicated to protecting rare plant species in Hawai‘i. The network emerged from a statewide capacity assessment and the resulting Hawai‘i Strategy for Plant Conservation - the Strategy is the foundational document that focuses Laukahi’s efforts on the protection of Species of Conservation Importance (SCI), the unique plants that comprise our native ecosystems. The urgency of this work has never been greater in the face of climate change and threats to native habitat, and working together will advance plant conservation faster than individual efforts alone.

## **Five-Year Network Plan**

Laukahi has made significant progress since launching in 2014. Generous funding support, the work of a full-time coordinator, and contributions from our partners have driven significant progress on projects identified in the strategy and the first action plan. *Ex situ* and *in situ* are conservation terms that describe two essential sides of plant conservation, and which also define much of Laukahi's work. *Ex situ* refers to efforts in safe, controlled facilities such as seed banks or botanical gardens; *in situ* describes efforts within natural habitats and native ecosystems. While the startup phase was characterized by an internal focus that organized the network and focused on efforts to secure plant species in *ex situ* facilities, our next phase emphasizes growth and expansion and requires Laukahi to look outward – to the mountains, to an expanded set of partners, and to our local and global communities. Continuing progress in collective *ex situ* efforts is critical, while we simultaneously advance *in situ* priorities and drive public engagement in plant conservation.

***Plan Focus Areas:*** This plan continues to draw on the 2012 Hawai'i Strategy for Plant Conservation (the Strategy). The Strategy remains the foundation for Laukahi's goals and activities and the 20 targets originally identified will continue to drive this work. By building on progress to date and gathering input from the Advisory Council and the network participants in 2018, Laukahi developed the resulting plan. Over the next five-year period, Laukahi will pursue six focus areas:

1. Grow a healthy network
2. Facilitate accurate, accessible information
3. Continue *ex situ* momentum
4. Invest in *in situ* protection
5. Engage our community
6. Elevate our global profile

***Two-Year Action Plan & Budget:*** While the content of this plan describes network priorities and efforts expected to span the next five years and beyond, the final section plan includes a summary outline of operational objectives and identifies budget and fundraising needs for 2019 and 2020. Progress on these objectives will feed into progress assessments and annual planning efforts for the years that follow.

# 1. Grow a healthy network

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Laukahi has an opportunity to be a unifying force in the plant conservation field. Since its launch in 2014, Laukahi has established a structure for an inclusive, voluntary, flexible network designed to draw upon the strengths and contributions of Hawai'i conservation partners. The network has 26 charter members and 27 other entities actively participating through data sharing, meeting attendance, or other work. Laukahi now has an established track record of collective projects and can serve as a nexus for continued relationship-building and future projects.

- ❑ **Foster leadership and participation.** Representatives of the Laukahi Advisory Council and one full-time coordinator will continue to provide direction for activities and stewardship of network efforts. Laukahi will continuously recruit new members to serve leadership roles on the Advisory Council. Realizing our collective potential will require intentional efforts to engage our members in the work and build relationships with one another. The network's success relies on members contributing their information and helping the network identify its priorities,
- ❑ **Hold in-person gatherings.** The life of a network is fed by meaningful time together to build a sense of community and create collective priorities. Laukahi expects to hold a few meetings each year to bring partners together to build relationships, set strategic directions, and share progress. Laukahi will ensure either travel funds or virtual meeting capabilities to support neighbor island participation.
- ❑ **Ensure listening and self-reflection.** Laukahi aims to foster time and space to listen introspectively, self-reflectively, and adaptively to its member priorities and contributions. We are always going to ask questions and preserve time to listen to our members to ensure that our network structure and actions reflect our member interests.
- ❑ **Establish network communications.** Consistent communication sustains a network between in-person gatherings. Efforts such as e-blasts and a social media presence can maintain member engagement, highlight progress, and solicit input to advance the network.
- ❑ **Support efforts within Laukahi.** Laukahi encompasses several smaller groups focused on specific aspects of plant conservation. Supporting these subgroups and their priorities is an important role for the network.
- ❑ **Raise funds.** In addition to raising funds to support Laukahi and the network activities, this plan is intended to serve as a reference for members to communicate collaborative priorities to solicit funding support for their own projects.

## 2. Facilitate accurate, accessible information

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Aggregated statewide information enables collaborative approaches to assessing opportunities, identifying gaps in species or geographic coverage, and making data-informed decisions. Laukahi has secured and populated a database system to facilitate sharing of biological and conservation data. Sensitive data will be access-restricted or not reported to protect location information of valuable, rare plants. In the next phase, Laukahi will continue to facilitate collaborative efforts to collect, aggregate, and disseminate information for the benefit of the network.

- **Increase database functionality.** The current platform is a first step toward a shared data system that standardizes information gathered. A contractor has already begun working on mapping and assessing the data sets to develop a database plan. The next priorities in this plan will likely include transfer to the cloud and addition of geospatial information to tabular data.
- **Produce reports and analytics.** The database will ultimately be capable of providing data that helps Laukahi identify opportunities, gaps, and progress in specific geographic areas or species. It will also return big-picture information that demonstrates collective momentum, and Laukahi will produce a simple, periodically updated dashboard that uses data to show progress against goals and over time.
- **Maintain conservation research agenda.** Laukahi has compiled priority research topics through a network survey and transferred this agenda into the existing database and secured scholarship funding for conservation research at Lyon Arboretum. Pending priorities include ensuring searchable access to information, regularly maintaining and updating the agenda, presenting at gatherings like the Hawai'i Conservation Conference, and conducting outreach to university departments, professors, researchers and students to ensure awareness of current conservation priorities. Surveys and outreach should update the agenda at least every three years.
- **Share best practices.** Conservation work in the field drives database accuracy. Alongside its role in facilitating database development, Laukahi is also well-positioned to provide training that standardizes and enhances data recording practices across conservation partners. In this next phase, Laukahi intends to document and codify best practices in data collection management through both training materials and workforce development and education programs.
- **Support existing online resources.** The institutions that maintain an online catalog of native Hawaiian flora provide a valuable public resource. Laukahi will reach out to each to offer support for the future of these online libraries.

### 3. Continue *ex situ* momentum

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The Hawaii Seed Bank Partnership was the original foundation of the Laukahi network, which began with a focus on *ex situ* efforts to secure the collections needed for restoration. Now, Hawai'i meets the global target for holding seeds and other plant collections to help prevent extinctions. The last several years have focused on deepening and expanding the diversity of collections. The next phase will continue this work to replenish aging collections and support infrastructure and capacity of *ex situ* partners. Continued support for the Hawai'i Seed Bank Partnership is a core element of Laukahi's work.

- **Continue species curation.** Through philanthropic support and partner contributions, nearly all collections in Hawai'i are now documented and categorized using standardized metadata classifications. Final steps include categorizing the Lyon internal seed bank database and completing remaining small collections; the work will then shift to ensuring all future curation uses the same approaches and classifications.
- **Continue assessing, maintaining, and building *ex situ* collections.** After curation, replacing aging inventory is an ongoing need. The assessment requires an update to quantify progress to date. Many collections have been in store for years and need new specimens to ensure a continual supply of viable collections for outplanting. While rare and threatened plants will always be important, *ex situ* facilities also build collections of common plants important to our culture.
- **Grow conservationists.** Healthy *ex situ* collections require active collectors. An increase in collectors, and the plants collected, calls for more personnel capacity at *ex situ* facilities. As the growth in collections allows for more outplanting and *in situ* restoration, the need for conservationists in the field also grows. This cycle of need illuminates the important goal of growing a conservation workforce across many disciplines within this work. Growing the next generation of the conservation workforce is important for several of the focus areas in this plan.
- **Invest in disaster preparedness.** Laukahi's eight seed bank partners provide a critical line of defense against threats to species. Response to a threat such as Rapid 'Ōhi'a Death provided a clear example of an urgent need, but also demonstrated the limitations of our current capacity to respond to a quickly rising threat. As facilities themselves are vulnerable to environmental threats, investing in hurricane and other disaster preparedness is a pressing infrastructure priority.

## 4. Invest in *in situ* protection

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As Laukahi continues to build on *ex situ* momentum, the network will broaden its work from the lab into the field. In this next phase, Laukahi will invest in planning and coordination that turns attention to the natural areas, where threatened plants exist in threatened ecosystems. This will require new information, different approaches, and expanded partnerships.

- **Complete *in situ* assessment.** An *in situ* assessment will mirror the 2012 *ex situ* work done to analyze collections and fill in missing data points. Much of the *in situ* assessment information is known, gathered through the Hawai'i Conservation Alliance efforts and from landowners and partner agencies. Yet information about the status and protection of plant populations in the field is not complete, and much of the existing fencing schemes have been crafted for protection of birds and watersheds. By filling information gaps and aggregating data pertaining to plant populations, this assessment will help identify the high priority locations and drive proactive planning efforts in the field.
- **Facilitate geospatial data expansion.** As noted in section 2 above, the current database is rich in tabular data, but lacks spatial data that can be translated into maps or visual demonstration of progress and needs. Increased database functionality is part of the solution, but the database must be populated with relevant *in situ* information and analysis to visually demonstrate status and progress. Laukahi can play a role in identifying the desired data layers, defining how to best record data, and facilitating contributions.
- **Inform planning and decisions.** Laukahi envisions the *in situ* assessment and companion database work as a resource for the conservation community. This data, along with best management practices, can be used to inform species plans and site plans for conservation organizations, government agencies, and landowners. While Laukahi does not intend to duplicate the planning work or recovery plans mandated of others, the network is poised to watch for new threats and call attention to species that do not have a plan and may need one. Laukahi may also have a role in developing a standardized template and suggested outline for species plans and consolidating species plans online.
- **Grow conservation capacity.** As noted in section 3 above, a conservation workforce is the essential input for growing capacity. Conservationists in *ex situ* and *in situ* roles have different skill sets and expertise, but the ability to collaborate across disciplines toward common goals is a characteristic shared by all. Capacity support also includes equipment, materials for fencing and other work, and air transportation for hard-to-access locations.
- **Support capacity for habitat protection.** While Laukahi may not be responsible for direct implementation of *in situ* work, it is important for the network to elevate general habitat protection as an explicit aim of the network's actions. This work spans a range of actions that maintain ecosystem function, adaptation and resiliency to change, plant population health, rare plant protection, and restoration of Species of Conservation Importance. Organization and agency efforts that advance this work should be acknowledged within Laukahi as important to the collective movement.

## 5. Engage with our community

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Plants are intimately connected to our quality of life on these islands – plant life is essential to the water we drink, forests we hike in, and the reefs we fish from. And even if the general public is aware that threats face native ecosystems, the average citizen does not likely share a sense of urgency for the survival of unknown, inaccessible, far-removed plants. One of the most significant and new efforts in the next five years will include space for storytelling that helps grow a sense of urgency and responsibility within our community. This requires a completely new set of skills and capacities than our existing conservation work. In addition to crafting new narratives for a public audience, this work must include partnering with those already doing work in education and community outreach.

- **Plan for youth engagement.** The next generation represents the future of plant conservation, and instilling native plant knowledge and a conservation ethic in youth is a community engagement priority. Organizations such as Kupu, Kamehameha Schools, and the Hawai'i Environmental Education Alliance are critical partners for accomplishing this goal, for young people from GK-12 learners to those in postgraduate and early career stages. Ideas for reaching this important audience range from partnering with individual schools, community organizations, art programs, and other youth activities, to a larger Department of Education strategy to expand hands-on applied learning within the framework of the public school system in Hawai'i.
- **Connect to cultural practices.** While Laukahi will not have a direct role in carrying out the cultural practices, the network acknowledges the need for its work to be carried out with a reverence for Hawaiian cultural uses. Engaging cultural practitioners to help inform this work is important, and Laukahi can also advocate for improved access to plants for cultural uses.
- **Identify business engagement strategies.** The business sector spans a vast range of potential stakeholders – from nurseries who sell plants to developers, landscaping firms, and the hospitality industry who purchase plants. Laukahi has the potential to influence the demand for diverse native plants and help support a growing supply of plants in a way that does not threaten wild populations.
- **Engage with policymakers.** With its diverse set of partners, Laukahi can be a voice participating in a collaborative effort to advocate for conservation actions that span *ex situ* and *in situ* conservation efforts.

## 6. Elevate our global profile

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Laukahi was formed in alignment with the Global Strategy for Plant Conservation and launched to coincide with preparations for Hawai'i to host the World Conservation Congress (WCC) in 2016. The WCC was part of a larger effort to raise the Hawai'i profile in global conservation efforts and pursue national and international resources for our important conservation work.

- ❑ **Pursue global partnerships.** When Hawai'i efforts merge with global partners like the Kew Millennium Seed Bank, it elevates the work in our islands and provides access to global resources that support local priorities. Laukahi will continue to pursue partnerships with national and international entities that will both provide the Hawai'i conservation community with learning opportunities and contribute to the national conversation.
- ❑ **Add Hawai'i plants to the IUCN Red List.** The International Union for the Conservation of Nature (IUCN) maintains a list of more than 26,500 species that are threatened with extinction. This Red List is an important indicator of biodiversity and one gateway for Hawai'i to maintain an international profile. Since WCC preparations began, Hawai'i has completed over 200 IUCN Red List assessments. Continuing this work is an important way to maintain legitimacy and raise international awareness around the need to protect the rich and threatened biodiversity of our islands.
- ❑ **Send Hawai'i delegations.** Ongoing participation in national and international conservation gatherings and events allows Hawai'i to remain on the forefront of the conservation movement. Laukahi intends to send a delegation of Hawai'i-based participants to at least one global conservation gathering every year.
- ❑ **Create a plant conservation hub of the Pacific.** Islands across the Pacific face the same climate change-induced threats to plants and their ecosystems, yet small size and remote locations inhibits each island nation from building the capacity to fight these threats alone. Laukahi represents an opportunity to expand an already diverse set of partners to include participation from across the Pacific. Infrastructure of government, university, and NGO partners can be leveraged for the benefit of more than just our own islands.



## Two-Year Work Plan & Budget

This section of the network plan translates the priorities described in the previous pages into specific, measurable actions to guide efforts over the next two years. The work plan includes:

- **Objectives.** The lists of objectives, categorized within each of the six focus areas, are intended to serve as both a roadmap for the network over the next two years and checklist to measure and report progress to members.
- **Timing.** While this work plan attempts to sequence events by quarter, Laukahi expects timing to shift and as the work progresses and new opportunities emerge. This work plan is a guide that will be continuously updated, and the general tasks listed beyond year two will require further details.
- **Lead.** In the current version of the two-year work plan, the Laukahi Coordinator holds the lead role for most of the listed objectives. One of the near-term goals is for the network to distribute responsibility for the objectives more broadly.

YEAR 1 OBJECTIVES: 2019		TIMING	LEAD
1	Complete 5-year network plan	Q1	Laukahi
	Clarify Advisory Council reorganization	Q2	Laukahi
	Engage members in network reflection / assessment	Q2	Laukahi
	Fill vacant Advisory Council seats	Q3	Laukahi
	Hold one all-network gathering	Q4	Laukahi
	Secure funding for network coordination and operation	Q4	Laukahi
	2	Complete database plan	Q3
Begin database upgrade work		Q4	Laukahi
Identify key metrics to track / communicate progress via dashboard		Q4	Laukahi
3	Complete seed bank database at Lyon	Q3	Lyon
	Complete species curation project for remaining collections	Q4	partners
	Start the <i>ex situ</i> assessment update	Q4	Laukahi
	Continue supporting statewide 'ōhi'a seed collections	ongoing	partners
4	Acquire funding for the <i>in situ</i> assessment	Q4	Laukahi
	Begin outreach to potential <i>in situ</i> partners	Q4	Laukahi
5	Complete network branding and communications strategy	Q3	Laukahi
	Identify a least two lead partners for community outreach	Q4	Laukahi
6	Complete 10 new Red List assessments	Q4	Hawaiian Plant Specialist Group

<b>YEAR 2 OBJECTIVES: 2020</b>		<b>TIMING</b>	<b>LEAD</b>
1	Gather feedback from network members	Q1	Laukahi
	Complete action plan for 2021 - 2023	Q2	Laukahi
	Develop three-year budget for 2021 - 2023	Q2	Laukahi
	Raise funds needed through 2021	Q4	Laukahi
2	Launch the initial dashboard with analytics and metrics	Q2	Laukahi
	Gather input and revise dashboard to present at fall gathering	Q3	Laukahi
	Conduct survey to update conservation research agenda	Q4	partners
3	Complete update of <i>ex situ</i> assessment	Q2	Laukahi
	Convene group to discuss workforce development strategies	Q4	partners
4	Complete <i>in situ</i> assessment	Q4	Laukahi
5	Outline community engagement plan, desired outcomes, metrics	Q1	Laukahi
	Secure funding for community engagement initiative	Q2	Laukahi
	Launch pilot community engagement project with at least 1 partner	Q3	Laukahi
6	Use 2020 WCC in France to update on Hawai'i Red List progress	Q2	partners

<b>YEARS 3 - 5: 2021 - 2023 to be updated with greater detail in 2020</b>	
1	Continue network building and strengthening Add and expand diversity of members
2	Ensure robust use of database with both robust data entry and ongoing reports Continue ongoing database functionality improvements and upgrades
3	Focus on workforce development priorities Continue ongoing species curation
4	Implement recommendations in <i>in situ</i> assessment Continue expanding landowner and manager network partners
5	Carry out public awareness and engagement campaigns for broad audiences Expand community, education, and other partners organizations
6	Engage with national / international partner both in Hawaii and at global gatherings

**Budget.** The budget corresponding to each year’s work plan identifies the projected financial need, broken into secured funds, in-kind contributions, and fundraising goal for each item.

<b>YEAR 1 BUDGET: 2019</b>	<b>TOTAL BUDGET</b>	<b>SECURED</b>	<b>IN-KIND</b>	<b>FUNDRAISING GOAL</b>
<b>Network Operations</b>				
Network staffing	100,000	100,000		-
Office space	25,000		25,000	-
General & administrative expenses	18,000			18,000
<b>Network Gatherings</b>				
Facilities	1,500			1,500
Neighbor Island travel support	2,000			2,000
Food & beverage	1,000			1,000
Facilitation	1,500			1,500
<b>Network Initiatives</b>				
Database Consultant	80,000	80,000		-
Dashboard development	15,000			15,000
Ex Situ Assessment consultants	24,000			24,000
Communications & Branding	15,000	15,000		-
Red List research capacity	15,000		15,000	-
<b>TOTAL</b>	<b>298,000</b>	<b>195,000</b>	<b>40,000</b>	<b>63,000</b>

<b>YEAR 2 BUDGET: 2020</b>	<b>TOTAL BUDGET</b>	<b>SECURED</b>	<b>IN-KIND</b>	<b>FUNDRAISING GOAL</b>
<b>Network Operations</b>				
Network staffing	100,000	20,000		80,000
Office space	25,000		25,000	-
General & administrative expenses	24,000			24,000
<b>Network Gatherings</b>				
Facilities	1,500			1,500
Neighbor Island travel support	2,000			2,000
Food & beverage	1,000			1,000
Facilitation	1,500			1,500
<b>Network Initiatives</b>				
Database consultant	40,000	10,000		30,000
In Situ Assesment consultant	80,000			80,000
Communications & public engagement	45,000		22,500	22,500
Red List research capacity	15,000		15,000	-
International travel support	20,000			20,000
<b>TOTAL</b>	<b>355,000</b>	<b>30,000</b>	<b>62,500</b>	<b>262,500</b>