ALOHA TREE ALLIANCE

BRANCHING **OUT**

2024
REPORT

EXECUTIVE DIRECTOR'S MESSAGE

Dear Friends and Supporters,

At Aloha Tree Alliance (ATA), we don't view the Kuli'ou'ou Valley watershed as it is; we envision what it could be. As we reflect on another transformative year, one word resonates deeply: growth. Not just the growth of trees we've planted, but the growth of our partnerships, our impact, supporters, and volunteers, all working toward a shared goal— to restore and regenerate Hawaii's unique forest and coastal ecosystems for future generations.

This year's community report theme, "Branching Out," speaks to this growth. With each new endeavor, ATA continued to strengthen its roots in the local environment by extending conservation and educational efforts across new terrains and into new collaborations. We forged strong partnerships with like-minded conservation organizations dedicated to preserving East Honolulu's natural environment. We fostered new alliances with local schools and community youth corps, launched exciting projects, and engaged hundreds of volunteers in our work to advance forest resiliency in the Kuli'ou'ou watershed.

Support from the National Oceanic Atmospheric Association (NOAA) grant, awarded to eight conservation organizations in 2023 for a ridge-to-reef effort and based on a traditional Hawaiian ahupua'a land management approach, allowed ATA to venture more deeply into its critical restoration work in the dry mesic Kuli'ou'ou forest. With the collective efforts and dedication of 916 volunteers, we introduced 3,000 more native plants and shrubs to the Kuli'ou'ou Ridge Trail, cleared 10 additional restoration sites and removed hundreds of invasive species to advance the ecological integrity of one of O'ahu's most cherished landscapes.

Partnerships with the Kaulunani Urban and Community Forestry Program, the City & County of Honolulu and The Garden Club of Honolulu helped ATA realize its dream this fall of building a Native Hawaiian plant nursery in Hawai'i Kai. The Bishop Museum Seed Bank's staff has been instrumental advisers to this project. Another shining example of ATA's growth is the launch of a Native Hawaiian Hardwoods Community Forest project in collaboration with the Hawai'i State Department of Forestry and Wildlife that will ultimately enable Native Hawaiian cultural artisans to sustainably harvest essential materials for traditional practices.

These partnerships are vital as we realize the urgency of climate change. Education also plays an essential role at ATA in equipping the next generation to meet this global challenge. ATA's partnerships with 12 schools and various community groups brought more hands and hearts into the effort to restore Kuli'ou'ou's precious watershed. By creating conservation opportunities for Hawai'i's youth, ATA is nurturing future environmental stewards—young leaders who will continue the fight to protect our state's natural treasures.

The work we do is never done in isolation. It is a collaborative effort, one that requires the passion and support of volunteers, partners, donors, and community members like you. As we broaden our canopy of influence and deepen our roots in the community, our commitment remains steadfast: to nurture, protect, and restore the land that sustains us.

Mahalo nui loa for standing with us, for your dedication to ATA's mission, and for helping us branch out in ways we never imagined.

Laurie

ALOHA, LAURIE CHANG

ATA'S IMPACT: 2021 - 2024

5,000
Native Trees Planted

7,466
Volunteer Hours

2,555
Volunteers

607
Students Reached

1.91
Acres of Restoration Kipuka

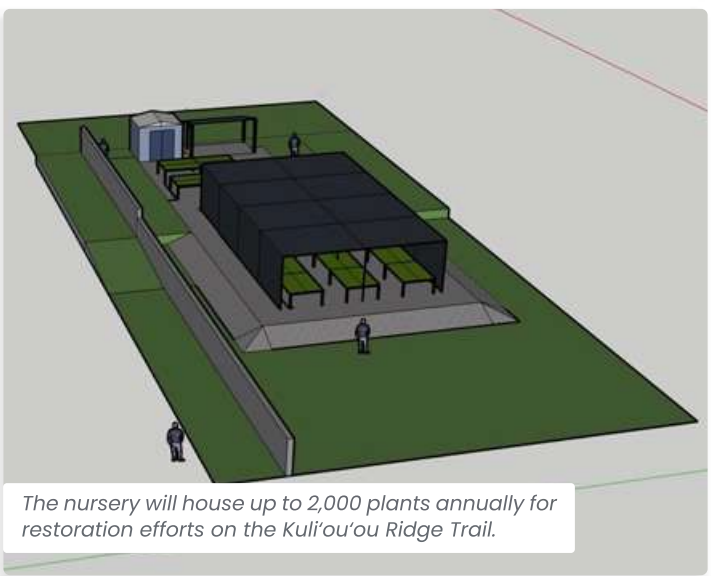
45
Partner Alliances

GROWING ROOTS FOR THE FUTURE:

ATA's New Native Hawaiian Plant Nursery

In the heart of East Honolulu's Kamilo Nui Valley, a transformative initiative is taking root—one that promises to restore and nurture not only the land in Kuli'ou'ou Valley but also engage the community that depends on it. This fall, Aloha Tree Alliance (ATA) launched its long-anticipated 1,440-square foot Native Hawaiian Plant Nursery. The nursery is more than a place to grow plants—it is a hub for environmental stewardship, education and cultural restoration.

Construction vehicles grade the site of ATA's future nursery.



The nursery will house up to 2,000 plants annually for restoration efforts on the Kuli'ou'ou Ridge Trail.

Boosting Restoration Efforts

In the last three years, ATA has significantly expanded its efforts to restore the Kuli'ou'ou watershed. However, local nurseries are not able to keep up with the demands for native plants that will allow this important work to be sustained. The Native Hawaiian Plant Nursery will help ensure that thousands of plants are available for ATA's restoration program on a yearly basis while also protecting native species at the genetic level.

Until ATA's new Native Hawaiian Plant Nursery is fully operational, the Bishop Museum Seed Bank will house and germinate several thousand 'A'ali'i seeds from Kuli'ou'ou. Once cultivated, ATA staff and volunteers will transplant the seedlings in restoration sites along the Kuli'ou'ou Ridge Trail.

Promoting Multilateral Biodiversity

At its core, the nursery will serve as a sanctuary for native plants from the dry mesic forests of Kuli'ou'ou Valley. Though many are aware of the importance of biodiversity – the variety between species in an ecosystem – a lesser known principle is the importance of preserving diversity within a single species. Just on the island of O'ahu, there is a marginal genetic difference between native plants growing in the Wai'anae Mountains and those in the Ko'olau Mountains (Dudley et al. 2017). If plant sourcing is not prioritized, the unique adaptations and genes present in Kuli'ou'ou's original plant populations may be lost forever.

Genetic diversity is important both between and within species.

Plants that are sourced from the Kuli'ou'ou region have adapted to the valley's conditions for millennia, and are expected to survive at higher rates than imported plants. By cultivating A'ali'i, Alahe'e and Ilie'e seedlings, the nursery will provide crucial support for reforestation efforts and preserve the genetic diversity of the valley (Dudley et al. 2017).

> *"This project is about more than just preserving native species. It's about rebuilding the natural landscape of the Kuli'ou'ou watershed in a way that honors the deep connection between people and the land."*
>
> *Eli Livezey, Field and Nursery Manager*

Cultivating Seeds of Knowledge

The new nursery will provide hands-on learning opportunities for students from across O'ahu, igniting their interest in native forestry. Internships will empower high school and college students to learn about native species cultivation and propagation, the forest restoration process and building a strong foundation for a greener future.

A young forest steward receives a Kou sapling for planting.

"These students will learn about botany, seed collection, conservation, tool use, and community organizing," said Livezey. "By growing our own plants, we'll cover the full gamut of restoration work."

Citation: Dudley, Nick, et al. Applied genetic conservation of Hawaiian Acacia koa: an eco-regional approach. U.S. Department of Agriculture (USDA), Forest Service, 2017.

Four volunteers prepare to transport and plant Koa trees.

Staying Vigilant Against Little Fire Ants

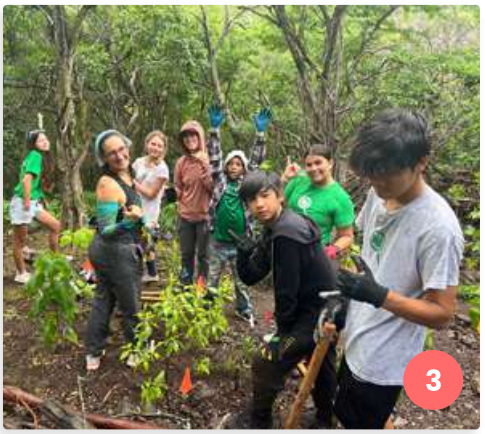
Mosquitoes, take a seat. Another irritating (and even smaller) pest is on the rise: Wasmannia auropunctata, or Little Fire Ants (LFA). An increasingly invasive hazard for everyone on O'ahu and a growing threat to local ecosystems, LFA cause painful stings in humans, blindness in pets, and major damage to crops such as coffee on the Big Island.

In an effort to help combat the spread of LFA, the ATA staff completed a specialized LFA training workshop led by O'ahu Invasive Species Committee Outreach Coordinator Erin Bishop and Education and Outreach Associate Jamie Miller, who explained threats, solutions, and best practices to manage and eliminate infestations. ATA staff will regularly conduct LFA tests and educate the public about LFA at the Native Hawaiian plant nursery and on the Kuli'ou'ou Ridge Trail. While these ants often spread from farms and nurseries, they have not been observed in Kuli'ou'ou. ATA prevents the spread to this site by ensuring that all native trees and shrubs are inspected before planting.

LESSONS UNDER THE CANOPY:

ATA's Education Program

Education is vital to fostering a culture of care and reciprocity with nature. ATA's Education Program is led by this belief-- it is what drives ATA staff to create engaging, interactive, accessible and impactful environmental learning experiences that bring the benefits of trees to life both inside the classroom and out on the Kuli'ou'ou Ridge Trail. It is what drives ATA to empower environmental change makers and inspire local communities to take action and make long-lasting impacts. Within the last year, ATA partnered with 10 different schools, reaching over 200 students from kindergarten through college and beyond, including environmental interns and over 916 community volunteers.



Elementary School: 1 2

Aloha Tree Alliance's education program is all about getting keiki's hands dirty and their hearts connected to the 'āina! From Haha'ione Elementary's first graders planting Pōhinahina for their school beautification project (left) to Koko Head Elementary's second graders learning about watershed conservation in preparation to plant Wiliwili trees (right), these young environmentalists proved that small hands can make a big impact.

> *"Thank you for coming to our school and teaching us about trees. I learned that without trees, we would not be alive. My favorite part was planting Wiliwili trees. I am taking really good care of it. After you came, I started to care a lot about trees."*
>
> *– Koko head Elementary School student*

Middle School: 3

ATA's education program extended to middle schoolers from the School for Examining Essential Questions of Sustainability (SEEQS), who were challenged to think about restorative solutions to climate change while actively participating in invasive species removal.

> *"I felt very proud and needed by the community. I used to think that one person's effort wouldn't make a difference, but I was wrong. ATA helped me clarify my future goals and understand my passion in this field."*
>
> *-Jingwei Tong, KUPU HYCC intern*

High School: 4 5

Local high school students from Radford's Interact Club joined us to volunteer at a community workday and rolled up their sleeves to mālama 'āina—one plant at a time! Also in attendance were students from Kaiser, Roosevelt, Punahou, 'Aiea and Pearl City high schools.

With the help of 12 enthusiastic Kupu Hawai'i Youth Conservation Corps (HYCC) interns in July, ATA broke ground on the Native Hawaiian Hardwoods Community Forest Project, in collaboration with the Hawai'i State Department of Forestry and Wildlife. The HYCC members and ATA staff cleared close to half an acre of invasive species, including Koa Haole, Strawberry Guava, and California grass, to be replenished with native tree species during the 2024-25 planting season. This reforestation effort promises not only ecological renewal but also cultural enrichment. In the decades to come, Native Hawaiian cultural practitioners and master carvers will have access to these precious hardwoods, using them to craft implements for cherished traditions like hula.

DIGGING DEEPER:

The Power of Soil in Climate Change

What if we told you that a solution to mitigating climate change lies right beneath your feet? Many are surprised to learn that soil is the world's second-largest carbon sink, second only to the ocean. A carbon sink absorbs and stores more carbon from the atmosphere than it releases, helping to reduce the effects of climate change by lowering atmospheric carbon dioxide levels. Soil serves as the foundation of ecosystems, making it crucial to understand its role and protect its health (ClientEarth, 2024).Unfortunately, climate change and environmental degradation have severely impacted every aspect of Hawai'i's ecosystems, including soil. Thankfully, through proper stewardship, soil degradation can be reversed, and Hawai'i is home to many dedicated individuals committed to this cause, including Megan Gonsalves, conservation planner from the O'ahu Resource Conservation and Development Council.

Gonsalves researches soil carbon and modeling as part of her master's studies at University of Hawai'i at Manoa.

> *"I chose to study soil as it holds the potential to increase climate resilience through equitable pathways. By improving soil health, we can mitigate climate change, improve food security, foster more resilient communities, protect marine and terrestrial ecosystems, and so much more."*
>
> *– Megan Gonsalves*

Understanding the importance of soil health sustainability, ATA began to dig deeper into understanding soil at the Kuli'ou'ou Ridge Trail (KRT) with help from Gonsalves and the Punahou Sustainability Fellows. The program participants, composed of 22 high school Fellows from across the state and 11 Junior School (grade 5) Sustainability Fellows, helped test the soil along KRT. One intriguing finding was low potassium levels. Potassium deficiency is known to cause yellowing along the edges of leaves—a phenomenon observed in several of the 'Ilie'e planted along the trail.

Understanding and nurturing the soil beneath our feet is a crucial step in ATA's journey towards a sustainable future. ATA is grateful for the help from experts like Gonsalves to help guide us in this quest.

Citation: ClientEarth. "Why Soil Matters." ClientEarth, 20 Sept. 2022.

HARNESSING THE POWER OF CROSS-SECTOR ENVIRONMENTAL PARTNERSHIPS

At the heart of environmental progress lies a simple yet universal truth: no single organization or sector can tackle the world's most pressing sustainability challenges alone. For Aloha Tree Alliance, this principle drives our commitment to cross-sector partnerships. The examples that follow portray how ATA and its diverse partners—federal government, state and city agencies, NGOs, and local communities—are turning environmental targets into on-the-ground impact and serving as testaments to the power of collaboration.

U.S. Senator Mazie Hirono stands with her newly-planted Koa tree, signifying the strength of partnerships, from grassroots to government.

Maximizing Impact with Federal Agency Partnership

Partnerships with government agencies like the National Oceanic and Atmospheric Administration (NOAA) are vital to Aloha Tree Alliance's success. These collaborations provide not only essential funding and regulatory guidance but also long-term scientific expertise that drives meaningful environmental restoration. The three-year NOAA grant awarded in 2023 is a powerful example of how federal support empowers local efforts. With this funding, eight conservation groups, led by Mālama Maunalua, have launched the Ridge-to-Reef Project, focusing on restoring critical watersheds in East Honolulu's urban areas. This project follows the traditional Hawaiian ahupua'a system approach, which integrates land stewardship from Mauka (mountains) to Makai (ocean).

Thanks to this partnership, in October 2023 to June 2024, ATA and its volunteers planted nearly 3,000 native trees and shrubs on the Kuli'ou'ou Ridge Trail, removed hundreds of invasive species, and restored 10 more trail shortcuts to reduce sediment and pollution runoff that threaten the health of Maunalua Bay. In total, nearly 5,000 native plants have been introduced to the area, significantly enhancing watershed restoration efforts in collaboration with local conservation groups.

Restoring a Community Forest with State Partnership

It's hard to imagine a time when Honolulu's dense urban landscape was a true jungle. Overharvesting, wildfires, invasive species, and climate change have left Hawai'i with only small pockets of mature Koa and Ōhi'a forests, making these trees far too valuable to harvest. Yet for many Native Hawaiians who have nurtured and relied on the land for hundreds of years, access to these natural resources is vital for preserving traditional practices.

ATA is excited to partner with DLNR's Division of Forestry and Wildlife to steward the new Hawaiian Hardwoods Community Forest. This initiative will allow ATA to cultivate rare and common hardwood species that will eventually provide Native Hawaiian artisans access to materials for cultural crafts. ATA staff and volunteers will clear invasive species, plant trees, and lead community education—a commitment to restoring vital forests and helping sustain Native Hawaiian practices.

KUPU volunteers help clear the way for the new Native Hawaiian Hardwoods Community Forest, a collaborative partnership between ATA and DLNR-DOFAW.

Sowing Seeds of Renewal with Bishop Museum

At first glance, native seeds may seem unremarkable, but within them lies the foundation of restoring Hawai'i's forests with plants native to their ecosystems. Thanks to the expertise of Bishop Museum Curator of Botany Tim Gallaher, and museum Seed Bank Collection Manager Nick Walvoord, ATA is gaining valuable knowledge about native seed collection and care as it launches its new nursery in Kamilo Nui Valley.

"Seed Banks, such as the one at Bishop Museum, can benefit organizations interested in restoration efforts by finding, collecting, processing, storing, and germinating high-quality seeds from the area that is being restored," said Walvoord. "They can help overcome challenges such as seasonality--seeds are sometimes produced in large quantities and planting seasons can be short-- and free up time and resources for organizations interested in restoration to laser focus their efforts."

The partnership between Aloha Tree Alliance and the Bishop Museum Seed Bank is vital to the success of ATA's restoration efforts. However, this collaboration is not just about restoring the land-- it's about safeguarding the future of Hawai'i's unique biodiversity.

ATA Field and Nursery Manager Eli Livezey and DOFAW Outreach Associate Winona Farias chased the spring seeding cycle for A'ali'i in Kuli'ou'ou Valley which resulted in the harvest of 15,000 seeds. Bishop Museum Seed Bank staff are germinating the seeds for replanting into the Kuli'ou'ou watershed.

The Correa family of Kuli'ou'ou Valley (l-r: Kala'e, John and Sandra Correa) meet with Grow Good Hawai'i staff Hilary Parkinson and Paul Arinaga (middle). Far right: ATA Executive Director Laurie Chang and HHF Planners Principal/Landscape Architect Richard Quinn

Bridging Communities By Going Native

Aloha Tree Alliance's partnerships extend restoration efforts beyond forest boundaries. One such partnership is with Grow Good Hawai'i (GGH)—an inspiring initiative that rallies residents, businesses, schools, and institutions to grow more native Hawaiian and Polynesian-introduced plants. Co-founded by Paul Arinaga and Hilary Parkinson, authors of Go Native, GGH is bridging the gap between urban backyards and the remaining natural forests in Kuli'ou'ou Valley. This initiative not only helps restore ecosystems but also promotes green infrastructure, enhances food sustainability, and addresses critical environmental issues, such as reducing sediment and pollutants flowing into Maunalua Bay.

With GGH's guidance, longtime Kuli'ou'ou residents John and Sandra Correa have embraced the "go native" philosophy in their backyard. They are now leading by example, encouraging others in the Kuli'ou'ou community to make the most of their landscapes and contribute to the island's ecological restoration.

Looking Ahead: Strengthening Focus and Networks for Greater Impact

As Aloha Tree Alliance moves forward, it will continue to invest in building resilient partnerships that align government and state policy with local expertise. ATA will expand its focus to strengthen nature-based solutions that protect biodiversity, mitigate the impacts of climate change, and support sustainable livelihoods. Together, we will not only set bold targets, but continue to achieve them–one tree, one trail, and one watershed at a time.

ATA EARTH AMBASSADORS

At Aloha Tree Alliance, volunteers are more than just helpers—they are the life force behind our mission. Every hour spent restoring trails, nurturing native plants, and educating the community brings us closer to a more sustainable, vibrant future for our island's ecosystems. Over the past three years, 2,555 volunteers have contributed 7,466 hours to this invaluable mission. In the following profiles, we celebrate our Earth Ambassadors, dedicated individuals who reflect the heart and soul of ATA.

Mark and Tracy Lynde

Ever since Mark and Tracy Lynde relocated from the East Coast to Hawaii, they have embraced their new home by giving back to the land. Despite their busy work schedules, the Lyndes find time to water thirsty Koa trees during their own recreational hikes and on monthly Community Workdays. As relatively new residents of the ʻāina, the Lyndes have made Hawaiʻi home by honoring the land through service.

John & Sandra Correa

John Correa, a proud descendant of a Hawaiian family with deep roots in Kuliʻouʻou Valley for over 112 years, carries forward a legacy of stewardship and connection to the land. John, his wife Sandra and their son Kalaʻe, are avid volunteers with ATA. Their dedication extends beyond volunteer work, as they serve as invaluable historical and cultural advisors to ATA, helping preserve and share the rich heritage of the valley.

Lory Barroga-Lee

Lory Barroga-Lee is well-known among ATA volunteers for her boundless energy, whether in hauling water jugs or leading fellow volunteers. "Knowing that I am making a difference in the transformation of the kīpukas motivates me to help maintain the young plants and shrubs on a regular basis," she shares. As a retiree, Barroga-Lee appreciates the peace and well-being that come with volunteering as well as the chance to actively contribute to the rejuvenation of the watershed.

FIGHTING CLIMATE CHANGE, TREE BY TREE

Brenda Lam, volunteer manager of the Magoon Research Center Nursery at the University of Hawaiʻi, waters a Koa sapling. Lam raised and delivered 100 of these Koa trees to help restore the forest.

When it comes to planting Koa trees, it's exciting to be one hundred-in-a-million. In spring 2024, ATA received 100 Koa saplings–from the Carbon Neutrality Challenge Project (CNCP) at the University of Hawaiʻi to be planted at the Kuliʻouʻou Ridge Trail. The planting of these gifted trees highlights a shared commitment to fighting climate change and reviving the island's native forests.

"After meeting the staff and volunteers at Aloha Tree Alliance, I was so impressed with the special care the trees would receive after planting that we donated 100 Koa," said Brenda Lam, a landscape architect and volunteer nursery manager at the Magoon Research Center. Lam has utilized novel methods developed by the CNCP to raise over 30,000 native trees with increased survival rates and accelerated growth. "I look forward to supplying them with other current species we are growing."

The four-to-five-foot-tall Koa saplings, now planted and lovingly watered by ATA's volunteers, are thriving despite the summer heat. As they grow, these saplings will play a crucial role in sequestering carbon & stabilizing soil in the Kuliʻouʻou watershed.

WEEKLY WATERING WARRIORS

Maintaining native trees and plants is as critical as planting them in forest restoration projects. On the Kuli'ou'ou Ridge Trail, keeping young plants hydrated is a significant challenge due to the steep slopes, the presence of large invasive trees that monopolize the water supply, and minimal rainfall during the summer. Thankfully, ATA relies on a committed group of volunteers, including many kūpuna, who haul water up the trail during weekly Aloha Friday Watering events. Whether motivated by a love for nature, a sense of community, personal health, or the hope of a better future for their grandchildren, their perseverance and dedication are key to restoring this beautiful watershed.

MAHALO TO ATA'S DONORS

As a 501(c)3 nonprofit, ATA relies on external funding to carry out our mission. ATA's stewardship of the Kuli'ou'ou watershed, Ridge-to-Reef collaborations, and education initiatives are made possible through the generosity of our corporate and individual donors.

We extend a sincere mahalo to The National Oceanic and Atmospheric Administration (NOAA), Xylem Water Solutions and The Coconut Traveler for supporting ATA's education and community engagement capacity. ATA's first major construction project, the Native Hawaiian Plant Nursery, would not have been possible without the generous support of the Kaulunani Urban & Community Forestry Program, Kela Construction, The Garden Club of Honolulu, and the City and County of Honolulu.

Every gift, large or small, promotes healing of the Earth by helping us improve the work we do and inspire the students we meet. To support ATA through a monetary donation, please scan the QR Code below, send a check using the attached remittance envelope, or visit alohatreealliance.org and select "donate." Mahalo nui loa for your support!

NOAA National Oceanic and Atmospheric Administration U.S. Department of Commerce

THE COCONUT Traveler

City and County of Honolulu State of Hawaii

KAULUNANI urban & community FORESTRY PROGRAM.

xylem Let's Solve Water

The Garden Club of Honolulu

“He keiki aloha nā mea kanu”
Plants are beloved children who thrive on love and care.

ʻŌlelo Noʻeau: Hawaiian Proverbs & Poetical Sayings by Mary Kawena Pukui (1983:76, verse 684)

RESTORE.
REFORREST.
RESPECT.

Photos courtesy of ©Howard Wolff Photography (www.howardwolffphotography.com), Baylie Bofenkamp, Hawaii Department of Land and Natural Resources, and Hawaii Department of Agriculture.