Friends of
D.T. Fleming Arboretum at Pu'u Mahoe

Winter 2017-2018

Board of Directors

President:
Martha Vockrodt-Moran

Vice President:
Judy White

Treasurer:
Anna Palomino

Horticulture:
Ernest H. Rezents

Conservation:
Dr. Fern Duvall

Field Biology
Catherine Davenport

Philanthropy:
Virginia Gannon

In Memory of Emeritus Directors

Jack Edward Vockrodt

Euphence Lavinia Fleming Vockrodt

Karen Ella Levy

Richard Masato Nakagawa

David Thomas Fleming- Hawaii's Leader in Native Forest Conservation

After 100 years of cattle roaming freely, protected by the Hawaiian kingdom, destroying the native forests, the reduced rainfall was noticeable. The State responded with a surge in forestry, between 1904 and 1930 planting in mass into State forest reserves fast growing trees (such as Eucalyptus, Christmas Berry, Wattle, Pine trees, Redwood trees, Wild Olive and Albezia) simply to attract rain. Though with good intentions, these trees are invasive non-native species today- a curse to the native forests. They have crowded out native species contributing to the loss of native forest ecosystems.

A botanist and hydrologist, David Thomas Fleming, "DT", saw too clearly the demise of Hawaii's most valuable natural resource- the rain forest ecosystem, attracting, regenerating and storing rain to sustain life on a volcanic island in the middle of the Pacific Ocean. The original native forest and its lower layer of shrubs and herbaceous plants gave shade, cooling the soil, protecting the native forest vulnerable to periodic regimes of hot, dry weather. DT led the native forest restoration movement in 1901 with mass native tree reforestation on West Maui, planting acres of Ohia, Sandalwood and Koa.

Especially dire was the Auwahi Forest, the dryland watershed forest on the slopes of south Haleakala, the richest remaining remnant forest of Hawaii's endemic plant species. While descriptions of rare native plants were being documented to preserve them in history books, DT took action. The DT Fleming Arboretum was planted within the slopes of the Pu'u Mahoe cinder cone to preserve the most threatened Auwahi species- ultimately for the restoration of South Maui dryland forests. Today, Pu'u Mahoe is an active seed resource and Rare Plant Recovery Reserve-a monument to DT Fleming's life.

Nature created a way of survival way before man arrived on earth. A great leader knows the critical importance of preserving nature- as the native forest ecosystems and watershed for the sustainability of life on a volcanic island in the middle of the Pacific Ocean.

Not only a successful entrepreneur in agriculture, David Thomas Fleming is Hawaii's leader in native forest preservation and restoration 100 years ahead of his time.

Martha Vockrodt-Moran
Grand-daughter of "DT" Fleming

"An innovation in Conservation" - Rain simulators throughout the Arboretum run eight times each day for one minute to service native birds and wildlife.

Photo by Dustin Palos

Dedicated to Preservation of Hawaiian Native Plants, Forests and Wildlife Habitat Through Protection, Propagation and Distribution
D.T. Fleming Arboretum #(808)878-3240, Office #(808)572-1097
PO Box 101, Makawao, Maui, Hawai'i 96768
Email: info@flemingarboretum.org Website: www.flemingarboretum.org

2017 Preservation Highlights

Flowers of Pu‘u Mahoe’s Rare Plant Recovery Reserve (clockwise from top left): The Hawai‘i State Flower *Photo by Tamara McKay,* Native Spanish Needle *Photo by Taylor Beesing,* Koki’o and Alani seed pods *Photos by Bob Bangerter,* ‘Ie‘ie, Hibiscadelphus Giffardianus *Photo by Duane Sparkman,* Minature Hibiscus *Photo by Michael Barraque,* and Hawaiian Gardenia.

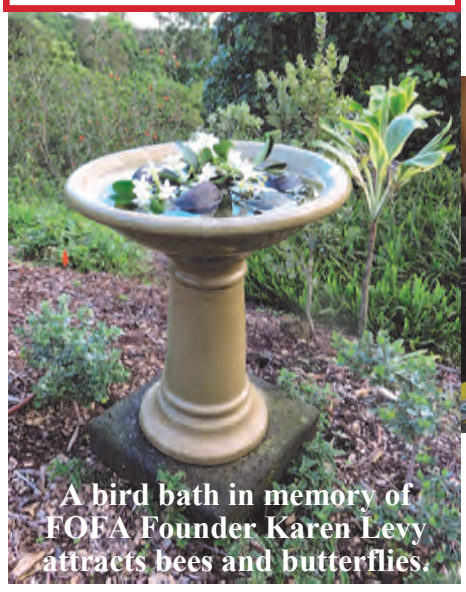
Pu‘u Mahoe Flowers
Photo by Duane Sparkman

For those that love blue: The Morning Glory is native, arriving naturally to Hawai‘i before the Polynesians.

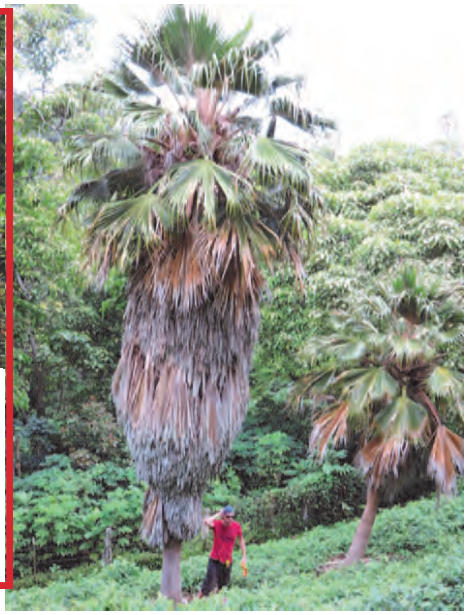
Pu‘u Mahoe is blessed by Kumu Gordean Leilehua Bailey and her halau Wehwehi O Leilehua.
A light wind blew for less than a minute on a quiet day at Pu‘u Mahoe during the ho‘okupu offering.

Pu‘u Mahoe Ho‘okupu Rock

The preservation of native plants, wildlife and forests... Preserving The Hawaiian culture



A bird bath in memory of FOFA Founder Karen Levy attracts bees and butterflies.



The Fleming Arboretum protects 14 “Maui County Exceptional Trees”, designated exceptional for their beauty, rarity, and historical importance. Above: the 65 year old Loulu Palm from Eki Crater, West Maui Mountains.

Koai‘a, a hardwood, was used in Old Hawai‘i for tools and weapons. Koai‘a stems and root are knotted for fish hooks.

Tamara Sherrill of Maui Nui Gardens shares the seed storage process of Arboretum seed used for preserving seed until propagation.

2017 Rebirth of a Forest

Chris d'Avella & Tamara Sherrill of Maui Nui Gardens receive Arboretum Halapepe seed to propagate and distribute free to the public on Arbor day.

Certified Arborist Terry Nutt crafts air-layer copies of Pu'u Mahoe's rarest trees each Spring.

Ethan Romanchak of Native Nursery grows many species for Pu'u Mahoe's native reforestation.

Mary Evanson stands with an air-layer copy of the seeding Old Alani, dedicated in her honor.

Volunteers of Troop 100 learn proper transplanting techniques.

Anna Palomino of Olinda Rare Plant Recovery Facility propagates the Arboretum's rarest species.

New growth on the 'Ohe Makai predicts the upcoming wet season. 'Ohe Makai is one of the few native species that kept its dormancy gene, though dormant instead in the summer to survive drought.

Below photo: Pu'u Mahoe Cinder Cone by Hank Oppeinheimer

Pu'u Mahoe is within the chain of cinder cones from Makena to Haleakala summit and across the crater floor– the Southwest Rift Zone.

Pat Bily of The Nature Conservancy donates new species of native succulents to the Arboretum.

Vision for the future: To restore Pu'u Mahoe back to native forest- "A vignette of primitive Hawai'i".

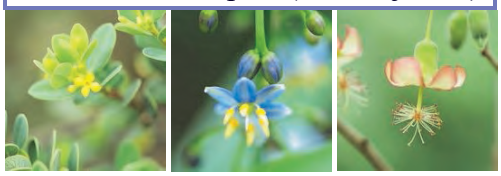
2017 Community Highlights

Mauna Ala Hiking Club hike to Pu'u Mahoe from Ulupalakua, Ranch and back, walking 4.2 miles.

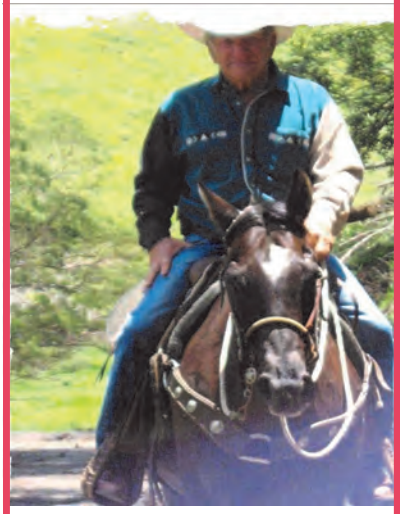
The annual St. Jude Trail Ride to Pu'u Mahoe generated $12,500 for the St. Jude Children's Hospital in 2017.

Seedling #5 of Kokia cookei is a memorial to Richard Nakagawa, a founder of FOFA and retired State nursery Director. From one individual K. cookei in existence, today there are five due to Richard's plant propagation perseverance.

The Arboretum is a classroom for Maui College Field Biology students each semester led by instructor and FOFA Director Catherine Davenport (in blue jacket).



Photos by Donnette Gene-Wilson



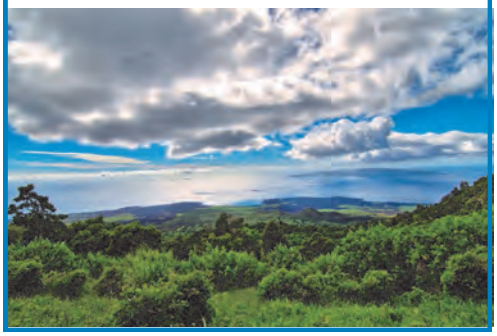
Wilfred Souza is honored in 2017 for years of generously donating his fine horses to riders.

Randall Rospond of the Haiku Hillbillys entertains riders with songs from his new CD: "Crazy World".

Photo by Tamara McKay

Visitors enjoy Fleming's traditional desert "Purple Cows" at the Fleming cabin overlooking "a commanding view of La Perouse Bay" and the horizon to Tahiti.

Photo by Michael Barraque



Hawaiian botanist and cultural expert Bob Hobdy and wife Doreen show Arboretum map, with data updated in 2017. Bob was one of the eight leading Maui conservationists to speak and guide tours at a World Conservation Conference outer-island event at Pu'u Mahoe in 2016.

From biology to photography, the D.T. Fleming Arboretum offers a view of the past and a window to the future.

Volunteer Highlights

Julian Askov earned his Eagle Scout Award in 2017 for installation of upgraded/ updated Arboretum tree labels.

Sheraton Maui and Wailea Beach Marriott employee volunteers haul prunings with great enthusiasm. Below: Annual volunteers of the Native Hawaiian Plant Society plant understory of native Gardenia.

Fletcher Prouty (photo in circle above) earned his Eagle Scout Award in 2012 for installation of a 350 foot Podocarpus windbreak for future native reforestation. Josh Demetropoulos, project partner, earned his Eagle Award for installing the irrigation. Center photo: Fletcher's 5 year old trees, " twice over-head", are weeded by cubs Pack 81. (Scout Bryce Tarpey in foreground)

An Eagle Scout pledges his honor to do his best each day as a community leader, for the community, the rest of his life.

Quality Control Volunteers
Photo by Marita Oppenheimer

Aolama Chou earned his Eagle Scout Award in 2017 for installing 20 feet of steps connecting new trails in the Arboretum.

Maui Green & Beautiful volunteers plant the rare Pimoi Ohai.

Below: Maui Sierra Club, with leader Rob Weltman (second from left), volunteer twice a year to care for their "Adopted Forest."

Mahalo for your continued support, making our success possible.

O‘hi‘a Lehua by Michelle Ritchie

Friends of D.T. Fleming Arboretum at Pu‘u Mahoe [FOFA]

Dedicated to Preservation through Protection, Propagation & Distribution

Name:_____

Address:_____

_____

Email:_____

___ Enclosed is my tax-deductible donation- payable to FOFA.

___Please remove my address from your mailing list.

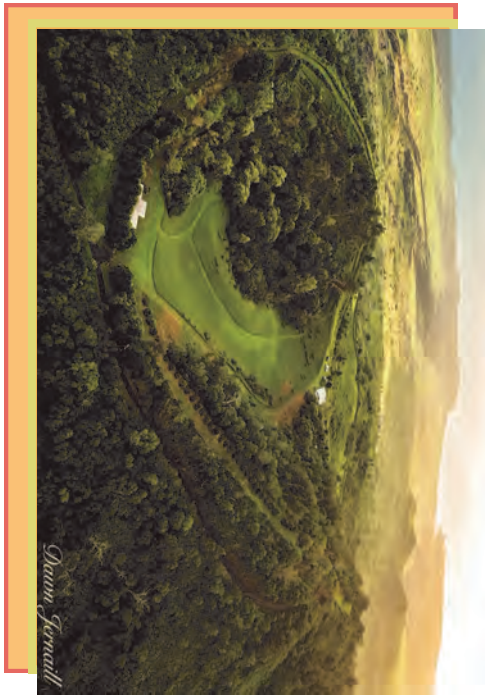
Thank you for your support.

Please mail to:
FOFA
P.O. Box 101
Makawao, Maui, HI 96768

This newsletter is partially funded by the Maui Office of Economic Development and Hawai‘i Tourism Authority

Blue Hawaiian Helicopters offers flights with landing adventures at Pu ‘u Mahoe.
Visit www.MauiNow.com to watch the video-
”A Look From Above Maui’s Pu’u Mahoe Cinder Cone”.
Visit bluehawaiian.com for reservations.

Friends of
D.T. Fleming Arboretum
at Pu‘u Mahoe

P.O. Box 101
Makawao, Maui, Hawai‘i 96768

Nonprofit Org
U.S.Postage
PAID
Makawao, HI
Permit # 1