Volume XXXVII, No. 3
Fall 2013

The Kukui Leaf

Lyon Arboretum University of Hawai'i

Rain Gardens Have Many Benefits

Rain gardens have the ability to contain storm water and reduce the amount of pollution entering streams and the ocean. They are 'designed with nature' as they mimic natural processes of stormwater management and are an effective tool for individual homeowners who want to reduce the amount of pollution entering Hawai'i's streams and the ocean from their own properties. By constructing a rain garden, individuals are taking an active role to protect watersheds, streams and the ocean. Thus, we are delighted to announce the development of *Ulu*, our new urban and rain garden.

Debunking the M yths

Myth:
Rain gardens breed mosquitoes
Rain gardens are designed to infiltrate water within 30 hours of a rain event in order to accept more water from the next storm; they are not a wetland or a pond. Constructed properly, rain gardens will infiltrate water quickly enough to eliminate mosquito breeding.

Myth:
Rain gardens are hard to maintain
The benefit of using native plants in a rain garden is that they are well adapted to their natural surroundings and do not require a lot of maintenance, fertilizers, or pesticides. The bulk of rain garden maintenance involves periodic watering and weeding.

Myth: **Rain gardens are unattractive**
Proper design is the key to any garden. Using native plants with interesting textures and colors can create an attractive garden for both the community and for pollinators.

Malama Manoa believes in us!
We are honored that Mālama Mānoa has provided financial support to help build, design, and plant the bioswale and raingarden, install signage, and develop courses for the public on the importance and construction of rain gardens.

THANK YOU Mālama Mānoa for supporting this project and helping us bring greater environmental awareness to the community.

Mahalo for your support!

We acknowledge, with gratitude, the following donations: John Chang – Certo & Sure Jell for jams & jellies; Dr. Vernon Jim – plastic pots for greenhouse; Meng Elliott – Snacks for staff & volunteers and umbrellas for visitor use. See our Wish List on page 7 to see how you can help!

The Kukui Leaf is published quarterly by the Lyon Arboretum, 3860 Mānoa Road, Honolulu, Hawai'i 96822. This newsletter is available in an alternate format upon request. Editors: Derek Higashi & Kristin Herrick

From the Director's Desk

I hope each of you enjoyed a fantastic summer of family, friends, fun.

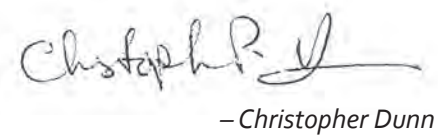
What is summer at Lyon if not "Lyon In Summer"?! This year, the Friends of Lyon Arboretum friends hosted a magnificent event. As you can see from the story and photos in this issue, this biennial summer gala exceeded all expectations. Aside from the much-needed funds that the event raised in support of the new plant conservation laboratory, it was another opportunity for all our supporters and the community to come together and celebrate the future of this magnificent place.

We were honored to have many special guests, including Governor Neil Abercrombie and UH Mānoa Chancellor Dr. Tom Apple. Their presence is a testament to the great work all staff and volunteers are doing and to the value and importance of our mission.

A big mahalo to everyone (FLA Board and staff, Lyon Arboretum staff and volunteers, UH Mānoa administration, UH Foundation, and Napua Wong and all our friends at Paradise Park) for making this a signature social event in Honolulu.

The future of the arboretum depends on your generosity, hard work, and wisdom.

Mahalo nui,



– Christopher Dunn

Chris McDonough Photography

Arboretum director Christopher Dunn, and his wife Mei-Ran, welcome Governor Neil Abercrombie and UHM Chancellor Tom Apple to the festivities.

Exploring the Arboretum with Mashuri Waite

Bolwarra

Eupomatia laurina

In the Third Vlley, on the way to the Ray Baker Memorial tree is a small tree called bolwarra *(Eupomatia laurina)* from wet forests in Australia and New Guinea. It is unusual in belonging to a small and evolutionarily old family, Eupomatiaceae, related to magnolias. There are only three species in the family, all endemic to Australia except for this species which is also found in New Guinea.

The leaves are long and leathery but otherwise not particularly distinctive. The flowers, however, are distinctive both in structure and behavior. The unopened flower is covered by a round cap that drops off when the flower opens. What look like numerous ivory petals are actually modified stamens called staminodes. The flower lasts two nights and a day. It opens on the first night and exposes the female stigma in the center of the flower to visits by species of small beetle carrying pollen from older flowers. The following day the staminodes fold in and cover the stigmas, and this is the stage shown in the photo. On the second night the functional stamens, which are narrower than the staminodes and found in the outermost rows of the flower, release the pollen to be carried by the beetles to other flowers. In the photograph these functional stamens are pointing down towards the branch.

Since we do not have the specific beetle (Elleschodes hamiltonii) to pollinate the flowers in Hawaii we do not get to try out the edible fruits which are sometimes used to make jams in Australia.

– Mashuri Waite

Friends News *Update from Friends of Lyon Arboretum President*

Aloha Friends of Lyon Arboretum,

This month I will be finishing my term as President of the Friends of Lyon Arboretum. It has truly been an honor to serve this organization, and I hope that my contributions have helped to support the wonderful work at Lyon Arboretum.

In July we had a wonderful time, under absolutely fantastic weather, at Lyon in Summer. We made many friends, enjoyed delicious food and beverages, and raised much needed funds to assist in the construction of the new Micropropagation Laboratory. Special thanks to all who attended or assisted in this gala event. The event also served as the debut for Phase I of the Garden of Remembrance. The Garden of Remembrance provides a unique combination of a peaceful yet strikingly beautiful setting to remember and honor loved ones who have passed.

Our Annual Meeting will be held on September 21, 2013 at 10 a.m. Please join us for light refreshments, annual updates from Director Christopher Dunn and myself, as well as to elect and meet our dynamic new board members and officers of the Friends of Lyon Arboretum. In addition, following the Annual Meeting, we will be conducting a guided tour of the new Urban Garden that is adjacent to the future Micropropagation Laboratory. Hope to see you there!

– Jonathan Steiner

Lyon in Summer - Photos by Chris McDonough Photography

Friends of Lyon Arboretum Member Donations

Koa Level
($500 and above)

Lisa Cavanah
Richard Kennedy
Greg Kiyan
Michael Moore
The Wedding Pledge

Ohi'a Level
($250 - $500)

Thyrza Eyre
Sharon Geary
Janet Henderson
Pat Schnack

'Ilima Level (up to $250)

Helene Arata
Brant Chillingworth
Dorothy Deimel
Barbara Kuljis
Dean Spagnoli
Tom Terriffic's
Lynette Wageman
Kathleen Wo
Stan & Janet Zisk

Dine at CPK & Help Us Raise Funds!

The Friends of Lyon Arboretum are raising money to assist in supporting field trips to Lyon Arboretum from local schools. You can help simply by enjoying a delicious meal at **California Pizza Kitchen in Kahala on September 11, 2013**. Print out the flyer, bring it to the Kahala CPK and 20% of your check will be donated to the Friends of Lyon Arboretum, a 501(c)(3) non-profit organization that supports the Lyon Arboretum. You can either dine in or take out.

Get the flyer at:
www.friendsoflyon.org/pdfs/FundraiserFlyer.pdf

Flyers can also be picked up in the Arboretum Gift Shop.

Sept - Dec 2013 **Lyon Arboretum—University of Hawai`i at Mānoa**

Lyon Classes

Visit www.hawaii.edu/lyonarboretum/education/classes2 for more class details and to download the registration form.

PLEIN AIR WATERCOLOR PAINTING Instructor: Rebecca Snow

Capture the beauty of Lyon Arboretum with the stunning translucency of watercolor. This one day Watercolor Plein Air Workshop with Rebecca Snow includes a studio demo, supply introduction to plein air painting and lots of class and personal instruction and critique will fill the day. You will walk away with a matted watercolor that you painted and a lot of new techniques in watercolor to ignite the artist in you. This class is great for beginners or those eager to brush up on their watercolor and plein air painting skills. Watercolor paper, brushes, backing board, water containers and paper towels are supplied . Bring your watercolor paints, preferably tubes, any brand will do, color list given at sign up. Max 10 students per session.

PLEIN AIR #1 Watercolor painting in a garden setting.
Saturday October 26 9-2 $55

PLEIN AIR #2 Watercolor painting in a garden setting.
Saturday November 2 9-2 $55

NATIVE PLANTS AND POLLINATORS Instructor: Dr. Elizabeth Huppman

Dr.Huppman, who recently received a PhD. for her research on native Hibiscus and nectar production, will share some of the fascinating stories and latest research on native Hawaiian plants and their bird and/or insect pollinators. You'll get a chance to see some great photos of pollinators at work and learn about some of the intriguing pollination strategies of native plants. After the indoor session you'll get a chance to walk out in the garden to see some native plants and hopefully some pollinators in action. Dress appropriately for weather and walking in the garden.
Saturday September 21 9:30-11:30 a.m. $15

GARDENING WITHOUT PESTICIDES (a Stepping Stones Class)
Instructors: Betty Mowbray & Phyllis Fong

Learn from Master Gardeners Betty Mowbray and Phyllis Fong about how to use companion planting to attract good bugs. They will also discuss the merits of vermicast compost and how it helps to nourish soil in container gardens as well as in the yard.
Friday, September 27 9:30-11:30 a.m. $15

HAWAIIAN FERNS: Identification, Ecology and Growing Tips Instructor: Kay Lynch

Kay Lynch, who specializes in native Hawaiian ferns, will discuss native fern identification and their natural ecology. She'll also demonstrate and discuss techniques used to successfully propagate and grow native ferns. We'll finish the class with a walk through the gardens to see ferns in their habitat. Dress comfortably for the walking in the garden and for weather. We'll have a nice selection of native ferns available for sale after the class.
Saturday, September 28 9-11:30 a.m. $15

INDIGO BLUES Instructor: Ann Asakura

Indigo is the Universal hue of hand woven, hand dyed and restitched fabrics. From desert Tuareg tribes, to the 14th generation of Kyoto dyers, to the manufacturers of denim jeans, indigo rules. Learn how indigo permanently dyes fabrics. Use resist methods of tie dye binding and clamping objects to create patterns. Control hue intensity with multiple dyeing submersions. In addition to related lectures on historical, cultural and botanical aspects, students will examine indigo dyed textiles. Detailed supply list and bibliography will be sent prior to the first class. Ann Asakura, indigo dyer for 30 years, is the Executive Director of TEMARI. In partnership with TEMARI, Center for Asian and Pacific Arts.

2 meetings: Saturday, October 19 and 26 9-12 noon $90 +$15 supply fee

SWEET & SAVORY: Recipes for Holiday Parties and Gifts
Instructors: Alyssa Moreau & Kathy Maddux

Alyssa and Kathy will demonstrate a combination of sweet and savory recipes, and show you how to prepare some delicious recipes for holiday parties or homemade gifts. You'll learn how to prepare, and get to sample these special holiday treats. Recipes include: No-Bake Pumpkin Pie Bites, Almond Carrot Crackers w/ White Bean Rosemary Spread, Baked Stuffed Apples w/Caramel Glaze, Cassava Sweet Potato Croquettes w/ Tahini Sauerkraut sauce, Cocoa Fig Cookies, and Poached Pears w/ Cranberries, Tangerines and Pomegranate reduction.

Wednesday November 6 6-8 p.m. $25

GUIDES CLASS TRAINING CLASS Instructor: Jill Laughlin

Join our elite garden guides group at Lyon, and help share your Aloha with garden visitors. Learn about the Arboretum and its collections, history and mission. This series of 5 classes is for those committed to becoming a garden guide at Lyon Arboretum. Classes will include both indoor and outdoor sessions. Classes cover plant conservation, Hawaiian natural history, Hawaiian ethnobotany, and the Arboretum's special gardens and collections. All participants will be expected to guide garden tours at the Lyon Arboretum after completion of the classes.

5 Wednesdays: 9/11, 9/18, 9/25, 10/2, 10/16 9:30-11:30 a.m. $25 +$10 supply fee

FLOWER ARRANGING 101 — Halloween! (a Stepping Stones Class)
Instructors: TGCH Flower Design Committee

Get ready for some tricks & treats in this flower arranging class! Learn the basics of creating floral arrangements in this demonstration and hands-on class. Bring clippers.

Friday October 25 9:30-11:30 a.m. $15 + $15 supply fee

HAWAIIAN FERNS 201 (a Stepping Stones Class) Instructor: Kay Lynch

Kay Lynch returns for an advanced class in the horticulture of native Hawaiian Ferns. Kay will discuss the soil and light requirements for growing healthy ferns, and will share tips on pest control. After the class, those who wish may join Kay in a walk to view Lyon Arboretum's native fern collection. Participants may bring a plant for specific advice (or bring photos of plants in question in their gardens)! Dress for weather and walking if you plan on joining Kay for the fern walk.

Friday November 15 9:30-11:30 a.m. $15

MAKING `OHE KAPALA: the Design Language of Hawaiian Kapa

In partnership with TEMARI, Center for Asian and Pacific Arts Instructors: Moana Eisele & Kamalu DuPeerz

To simply incise narrow bamboo strips with patterns is not enough. You will have made a tool, even an artistic object, but it will not have any meaning until you learn the design language of Hawaiian kapa. The zenith of making and decorating bark cloth in Polynesia was reached by Hawaiian Kapa. Finely felted and watermarked, kapa was embellished with intricate motifs. The hallmark was the secondary patterns created by the negative spaces between stamped patterns. Recognizing and understanding the power of these internal spaces is the key to the limitless potential of creating your own 'Ohe Kapala. You will learn not only the basic Hawaiian language names of patterns but also understand its origin and kaona, its layered meaning relative to place, season and family lineage.

The workshop includes a tour of some of the Arboretum's bamboo collections to provide guidance on how to select 'Ohe, discussion on appropriate usage of patterns, making your own 'ohe Kapala and using traditional kapa dyes and contemporary pigments.

Saturday November 16 9-3 p.m. $90 + $20 supply fee

TABLE TOP CHRISTMAS TREES (a Stepping Stones Class)
Instructors: TGCH Flower Design Committee
Make a table top Christmas tree using fresh plants and flowers. This is a hands-on class, so dress comfortably and bring clippers.
Friday December 6 9:30-11:30 a.m. $15 + $15 supply fee

HOLIDAY ARRANGEMENTS w/TROPICALS (a Stepping Stones Class)
Instructor: Ann Kadowaki
This is a hands-on class, please bring clippers.
Friday December 20 9:30-11:30 a.m. $15 + $15 supply fee

SPIRAL & KEYHOLE PLANTING FOR WATER MGMT. (a Stepping Stones Class)
Instructor: Diane Moses
Friday January 17, 2014 9:30-11:30 a.m. $15

SPRING NOSEGAY HAWAI`I STYLE (a Stepping Stones Class)
Instructor: Ann Kadowaki
Friday March 28, 2014 9:30-11:30 a.m. $15 + $15 supply fee

Classes noted as a Stepping Stones Class are jointly sponsored by the Lyon Arboretum and The Garden Club of Honolulu.

Children's Classes

Fall break: STREAM Class STEM learning + Art and Recreation & lots of fun & fresh air!
Instructor: Lyon Education Staff: Jill Laughlin, Richard Sears, Emmalani Makepa-Foley
Five full days of hands-on, minds-on activities at the Lyon Arboretum. We'll do lots of hiking, explore stream habitats, learn about the Mānoa watershed, island ecosystems, and our effect on the ocean. We'll do photography and art, learn about Hawaiian culture and do some gardening science. This is a great opportunity for kids who love the outdoors, and those who'd like to learn more about Hawaii's natural and cultural history. For children currently in grades 1-5. Register early....class is limited to 20 children.
Mon-Fri October 7– 11 8:30 am—2:30 pm $200.
Download an application form for our children's classes at: www.hawaii.edu/lyonarboretum

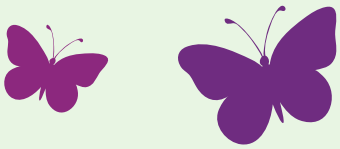
Children's Drawing and Printmaking Workshop Instructor: Crystal Tezuka
Create a masterpiece print of how YOU see Mānoa Valley! With generous funding from Mālama Mānoa, Lyon Arboretum and Afterschool Art are partnering to provide 4 workshops for young artists ages 9-17. These 3 hour classes are free, and will include sketching, drawing outdoors, and printmaking. Registration is required. Limit 8 students per class.
Sign up for 1 of 4 sessions:
Saturday, Sept 28 9 am-12 noon free
Saturday, Oct. 5 9 am -12 noon free
Saturday, Oct. 12 12 noon-3pm free
Saturday October 19 12 noon-3 pm free
Call 988-0456 to register
Please note: This intensive 3 hour class requires focus and discipline. Class begins and ends at stated times. No early drop offs or late pick ups.

Visit www.hawaii.edu/lyonarboretum/education/classes2 for more class details and to download the registration form.

We extend deep gratitude to these donors for their support:

$1,500 +
Hau'oli Mau Loa Foundation

$500-$1,499
Mr. & Mrs. Patrick V. Bullard
Loren S. Miller
Sogetsu Hawaii Branch



$100-$499
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Alexander & Baldwin Inc.
Ms. Suzan Harada
Mr. & Mrs. James K. Kawasaki
Mr. & Mrs. George G. Rhoads
Mr. & Mrs. David S. Roe
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Mr. & Mrs. Richard Riegels
Mr. Roger Marcil
Mrs. Pamela Valdes
Mr. & Mrs. Thomas R. Talamini

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Mr. Charles Ice
Ms. Eileen De Lucia
Mrs. Marian Leong
Mrs. Ruthadell Anderson
Ms. Helen Sing
Ms. Alicia H.K. Yee
Mr. & Mrs. Eugene Fujii
Ms. Jaurene Judy
Ms. Brett Walley-Saunders
Mr. & Mrs. Joseph Farrell

For more information about donating to the Arboretum, please contact the UH Foundation (Harriet Cintron at 956-8103 or manoa.development@uhf.hawaii.edu) or the Director of the Arboretum at 988-0457.

Save the trees!

If you'd like to receive future newsletters in PDF format via email, please contact higashi2@hawaii.edu.

Sign up for the email newsletter by November 30 to be eligible for a $10 gift certificate redeemable at the Arboretum gift shop.

Congratulations to Karyn Harada, our Summer 2013 drawing prize winner!

Good luck next time!

Wish List

School field trip subsidies ($100 ea.), Rite-in-the-Rain ink-jet paper ($86), keiki rain ponchos ($5 ea.), HD laminator ($250), laptop computer ($1,000), Silky short hand saw ($65), rain jackets ($40 ea.), sickles ($3 ea), two 8' fiberglass step ladders ($140 ea.), fruit for Jams & Jellies: lilikoi, mulberry, calamondin, kumquat, surinam and strawberry guava; 50'x5/8" heavy duty garden hose; pruning saw & shears ($70); tarp ($10). Mahalo!

We appreciate your donation

Name:_____ Phone: ( ) _____ — _____

Address: _____ City:_____ Zip: _____

Email: _____

Payment method: _____ check (payable to Lyon Arboretum/UHF, Attn account #12043404)

Or Credit Card: _____ (Visa) _____ (Master Card) _____ (American Express)

Account #: _____ Exp date: _____/_____ Security code: _____

Signature: _____

Please send to: Lyon Arboretum / UHF, Appeal code: 09LY2, 3860 Mānoa Rd, Honolulu, HI 96822

University of Hawai'i-Mānoa
Harold L. Lyon Arboretum

3860 Mānoa Rd.
Honolulu, HI 96822
Phone: 808-988-0456
www.hawaii.edu/lyonarboretum

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Arboretum Hours:

Monday-Friday, 8am-4pm
Saturday, 9am-3pm Closed on Sundays & Holidays

$5 Docent led tours available at 10am, Monday-Saturday. Please call 988-0461 for reservations.

Arboretum Staff

Director:
Dr. Christopher Dunn

Administration: Destin Shigano, Derek Higashi

Education & Volunteer Programs: Jill Laughlin, Richard Sears, Emmalani Makepa-Foley

Plant Collections & Grounds: Mashuri Waite, Hajime Fujisaki, Jamilee Kempton

Ethnobotany: Līloa Dunn, Poco Compehos

Micropropagation Lab: Nellie Sugii, Cindy Yamamoto, Doug Okamoto, Peter Wiggin, Bernice Fielding

Seed Lab: Tim Kroessig

Horticulture: Liz Huppman, Carol Nakamura

Botanist: Karen Shigematsu

Facilities / Maintenance: Ken Seamon, Clancy Ako

Holiday Plant & Craft Sale at Lyon Arboretum

Saturday, November 23, 2013
9 a.m. to 2 p.m.
Free Admission

Heliconias, Gingers, Anthuriums, Herbs, Vegetable Plants, Orchids, Native Hawaiian Plants including Hawaiian Ferns, Cactus & Succulents, Tillandsias, Bromeliads. UH Variety Vegetable Seeds & more. Holiday Wreaths, Oshibana Crafts, Jams & Jellies, Hawaiian Honey.

Free shuttle service to the Arboretum.
Pick up points at Po'elua Street and Nipo Street where they intersect with Manoa Road.

Please Call 988-0456 for more Information