Friends of the Palomar College ARBORETUM

NEWSLETTER

Volume 1 Number 4 September 6, 2011

2011 Calendar of Events in Late Summer and Fall

http://www.palomar.edu/arboretum/calendarEvents.htm

Free Workshops & Lectures are Open to the Public!

Saturday, September 17

The Kingdom Fungi

with Steve Farrar, Horticulturist

10:00 am to 11:00 am
Room: NS-259

The Kingdom Fungi: a whirlwind tour of this remarkable kingdom of life touching upon fungal biology & life cycles, mushroom wild crafting, mushroom cultivation technologies, fungal biotechnology, culinary mushrooms, medicinal mushrooms, mushroom cooking & nutrition, and the health benefits of mushrooms.

Mr. Farrar has almost 30 years of experience in various aspects of the mushroom industry including mushroom farm design, construction and startup; mushroom cultivation equipment sales, cultivation of culinary mushrooms (Oyster, King Trumpet, Shiitake, Maitake, Enoki, Shimeji), cultivation of medicinal mushrooms (Cordyceps, Reishi, Lion's Mane, Turkey Tail, etc) for dietary supplement products; and the utilization of spent mushroom compost.

RSVP Tony Rangel by September 15th if you plan to attend this lecture.
Please email: *arangel@palomar.edu*
(760) 744-1150 x2133

For more information email: Steve Farrar at *steve@m2ingredients.com*

Members Appreciation Dinner, May 2011

The Friends of the Palomar College Arboretum Annual Members Dinner was held last May 12, 2011 at the Patron's Friendship Pavilion. Several members were honored for their outstanding contributions to the Arboretum during the past 40 years. Appreciation awards and lifetime memberships were presented to James Robert Kelly, co-founder of the Arboretum; Wayne Armstrong, Life Sciences; Richard Borevitz, Irrigation Specialist, Dick Henderson, Cactus & Succulent Horticulturist, and Bill Adams, M.D. The highlight of the evening was James Robert "Bob" Kelly, whose dream of a campus arboretum 40 years ago finally became a reality.

Thursday, October 6

Annual Plant Sale

8:00 am - 3:00 pm
Location: Near the Flag Pole

All proceeds benefit the Palomar College Arboretum. For more information email: Tony Rangel *arangel@palomar.edu*

Saturday, October 8

Annual Fall Arboretum Beautification Day

9:00 am - Noon

Meeting at the Patron's Pavilion in the Arboretum.

Please bring your rake, shovel, gloves, hat, sunscreen, sunglasses.
Please mark your tools with your name and phone number. Other equipment will be provided. Water will be provided throughout the work areas.

RSVP Tony Rangel by October 6th if you plan to attend this event.
Please email: *arangel@palomar.edu*
(760) 744-1150 x2133

For more information email:
Tony Rangel *arangel@palomar.edu*

See Photos of past Beautification Day Events
http://www.palomar.edu/arboretum/photos.htm

Saturday, November 12

The Truth about Bamboo! Planting Bamboo is not a Crime.

with Ralph Evans

10:00 am to Noon
Room: NS-259

Ralph Evans, owner of Bamboo Headquarters, will demonstrate the selection, planting, and care of Bamboo for local landscapes. Mr. Evans has the largest commercial Bamboo Nursery in the U.S. It is located in Vista and San Marcos. *http://www.bamboohq.com*

Subjects will include: selection of the right bamboo for your landscape or privacy screen, planting and care information. The power point presentation will be followed by a tour and demonstration in the Palomar Arboretum Bamboo Collection.

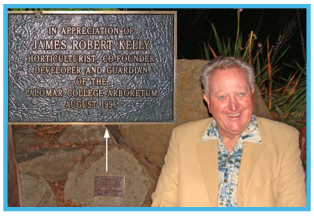
RSVP Tony Rangel by November 10th if you plan to attend this lecture.

Please email: *arangel@palomar.edu*
(760) 744-1150 x2133

See Photos of the 2010 Bamboo Lecture and Tour
http://www.palomar.edu/arboretum/2010/bambooLecture2010.htm

Recipients of the beautiful Appreciation Award.
From left: James Robert Kelly, Wayne Armstrong, Richard Borevitz, Dick Henderson and Dr. Bill Adams.

Members of the Friends of the Palomar College Arboretum. From left: Tony Rangel, Susan Snow, Elaine Armstrong, Pauline Riley, Richard Borevitz, Dr. Bill Adams, Wayne Armstrong and Robert Kelly.



The infamous James Robert Kelly, cofounder of the Palomar College Arboretum and master of ceremonies at the 2011 Members Appreciation Dinner. In 1996 A bronze plaque was placed at the west entrance to recognize Bob's years of service to Palomar College and the Arboretum.

The beautiful appreciation award presented to five members of the Friends of the Palomar College Arboretum

New Plant Labels on Campus

by Tony Rangel

You have probably noticed the new plant signs that are being placed around campus and in the Arboretum. Six months ago, the Friends of the Palomar College Arboretum purchased a label-making machine for the Grounds Department so our extensive plant collections can be identified. The labels are made of vinyl and are printed with a heat transfer ink. They can easily be reprinted if they are damaged or the names become obsolete. They are placed onto aluminum sheets cut from old signs that were destined for the metal bin. Completed labels are then attached to galvanized metal stakes and placed next to the plant. In some cases the plaques are screwed directly into trees with stainless steel screws.

Installing the plant labels directly into the trees does not harm the trees. As long as the screws remain in the tree, no hole will be created and thus no harmful bacteria, fungus or virus can enter the tree to cause disease or decay. This "direct attach" method of labeling trees is used in botanic gardens around the world and has been in practice for over 25 years. As the trees grow and expand the screws should be backed out every few years so that the labels do not get compressed against the trunk.

We decided to label trees and shrubs on campus to inform staff and visitors about the unique plant diversity at Palomar College. The labels contain basic information about the plant, including its family, common and scientific names, and region of origin. MYO (Million Years Old) refers to plants with a documented fossil lineage. IUCN refers to International Union for the Conservation of Nature. This important classification system is used on plant labels at the San Diego Zoo and Wild Animal Park. As human populations grow and encroach on wilderness areas, the world's biodiversity continues to diminish. In fact, some of the plant species on campus are threatened and endangered in their native habitats. I will discuss the IUCN classification in the next newsletter.

One of the new plant labels in the Cactus & Succulent Garden. This is a beautiful specimen of the Australian hoop pine (Araucaria cunninghamii). It belongs to an ancient conifer family dating back to the Triassic Period (220 MYO).

Palomar College Cactus & Succulent Garden

by W.P. Armstrong

If you have driven along Mission Road past Palomar College during the past 50 years, you have probably noticed a large cactus and succulent garden at the east end of campus. This landmark garden actually had its beginnings in 1957 when a newly formed cactus club held its first meeting at Palomar College and elected Esther Nesbin as president and Mildred Gregory as secretary. The membership increased rapidly, including many members from San Diego, and soon a section split off to form the San Diego Cactus & Succulent Society. The Palomar group continued to expand, and in 1962 the Club Garden was established at its present 2 ½ acre site on campus. Donations and a lot of work by various members provided a water line to the garden, pathways and numerous cacti, agaves, aloes and other succulents. The Governing Board of the College provided a chain link fence with locked gates to secure the valuable plant collection. In those early years, the garden was the site of picnics, workshops and auctions by many enthusiastic gardeners. During the past five decades, many of those original plantings have grown into splendid specimens and the collection has increased to many thousands of species from desert regions throughout the world.

Cacti and succulents include many plants in diverse plant families that have become adapted to arid regions of the world with low rainfall. They have similar morphological characteristics, an example of convergent evolution (homoplasy). Some have thickened stems and leaves that store water; some are drought deciduous and lose their leaves during the dry season; and some have leaves and stems modified into spines and thorns. For example, many North American cacti are remarkably similar in appearance to African euphorbias, until you see their very distinctive flowers. Some of the most bizarre plants on earth are in this group, including caudiciform trees, shrubs and vines that grow out of a huge basal caudex buried in the ground. When the entire trunk is unusually thickened like the baobab and bottle trees, the term pachycaul is used.

The Garden contains more than 3,000 species of drought resistant flowering plants, representing over 15 plant families. With all the recent research in molecular taxonomy, especially chloroplast DNA, there have been some drastic changes in the classification of plants, particularly their placement in different plant families. When all of these plants are in full bloom, the air is filled with the sweet scent of flowers and sounds of foraging bees and a myriad of butterflies and hummingbirds. One exception to the sweet aroma is the remarkable carrion flowers (***Stapelia***) of the Apocynaceae that are pollinated by blow flies and flesh flies.

Two of the largest genera in the Garden are Agave (Agavaceae) with approximately 150 species and Aloe (Asphodelaceae) with 125 species. Other large genera are ***Opuntia*** and ***Mammilaria*** (Cactaceae) and ***Senecio*** (Asteraceae). In fact, the latter genus is one of the largest in the plant kingdom. There are also numerous species of ***Euphorbia*** (Euphorbiaceae), including large tree euphorbias that have been on the site for nearly 50 years. Pathways lead to 40 individual gardens, including Baja California, Arizona, Africa, Madagascar and the Canary Islands. Several gardens feature specific genera, including ***Pachypodium*** (Apocynaceae), ***Sansevieria*** (Ruscaceae) and ***Dudleya*** (Crassulaceae). Additional families include the spectacular proteas and leucospermums (Proteaceae) and the colorful drought resistant ice plants (Aizoaceae).

One of the most interesting cactus species in the Garden is called dragon fruit (***Hylocereus undatus***). Native to Central and South America, this climbing cactus is cultivated throughout tropical regions of the world. In fact, it is commonly sold in marketplaces of Thailand. Our dragon fruit is especially unusual because it has climbed to the top of a tall deodar cedar (***Cedrus deodora***).

This extensive collection was owned by the Palomar Cactus and Succulent Society and Dick Henderson, manager of the Garden. For the past 20 years, Mr. Henderson has donated countless thousands of hours to maintain this remarkable collection of plants from throughout the world. In an official letter dated February 2011, the Board of the Palomar Cactus and Succulent Society donated this splendid collection to Palomar College. Valued at approximately $400,000, the Cactus and Succulent Garden will be the most extensive garden on campus and a great asset to the college and to the community. This landmark along Mission Road in San Marcos will finally be part of the Palomar College Arboretum east of campus, truly one of the largest collections of plants in San Diego County.

For anyone interested in a tour of the Garden, please contact Dick Henderson who leads occasional group field trips throughout the year. You may contact Mr. Henderson at (760) 480-4181.

Dick Henderson, manager of the Palomar Cactus & Succulent Garden.

Yucca filifera with its characteristic pendant inflorescence. This Mexican species belongs to the agave family (Agavaceae).

A large elephant-foot tree (Beaucarnea recurvata) with Tillandsia epiphytes growing in the forks of its main trunk.

A dragon fruit cactus (Hylocereus undatus) that has climbed to the top of a tall deodar cedar (Cedrus deodara) in the Palomar College Cactus & Succulent Garden.

The bizarre starfish flower (Stapelia gigantea) is a succulent member of the milkweed family (Asclepiadaceae) native to South Africa. The large flower has the scent of rotting carrion and attracts blow flies and flesh flies for pollination.

This pathway is lined by large Euphorbia quadrangularis native to Tanzania. In the distance is a Mexican blue palm (Brahea armata).

Oscularia deltoides, a colorful clumping ice plant (Aizoaceae) native to South Africa.

Another remarkable starfish flower (Stapelia variegata) native to South Africa.

Yellow pincushion (Leucospermum cordifolium), a lovely member of the protea family (Proteaceae) native to South Africa.

Would you like to be an Arboretum Volunteer?

Maintaining the Palomar College Arboretum is an enormous task and takes countless hours to keep all the gardens growing. We are often asked: What does an Arboretum volunteer do? How many hours would a volunteer be expected to work? Can anyone volunteer?

Tasks assigned to volunteers are based on an individual's knowledge, experience and physical limitations. Some horticultural experience is a plus; however it is not necessary. Basic tasks include raking leaves, sweeping, weeding and watering. Other complex tasks like trimming and planting may be asked of volunteers if they have been trained properly by the Grounds Services staff. In an effort to keep track of the large and diverse plant collection a data base of all the plants on campus is maintained. Help with this computerized data base project is always needed.

In addition to maintaining the District's plant collection we operate our own nursery and propagation area. We also maintain a seed bank for several of the more rare and unique plants. Plant propagation work is vital to the grounds department. Seeds and cuttings of our specimens are collected from various places and propagated here in our nursery. With the diversity of plants on campus, volunteers have an opportunity to work with cactus, succulents, trees and shrubs from around the world.

Complete information and a volunteer registration packet is available from the Human Resources Office at: ***http://www.palomar.edu/hr/Personnel/volunteers.htm***. We request that volunteers commit to at least 4 hours per week and submit to the grounds supervisor a record of hours worked on a monthly basis. In addition, members of the Friends of the Arboretum are eligible for an annual parking pass at ***http://www.palomar.edu/arboretum/ParkingPermitApplication.pdf***.

Friends of the Palomar College ARBORETUM

Membership Application Form

❑ Join, ❑ Renew or ❑ Gift Membership

Date: _____

Mr. and Mrs. / Ms. / Miss / Mr. / Mrs.

Name: _____

	Student & Senior 60+	$10
	Individual	$20
	Family	$40
	Founding	$120
	Lifetime Membership	$500
	Corporate Museum Associates	$1,000
	Donations	

$ _____ I have enclosed a donation to benefit the Arboretum

$ _____ Membership

$ _____ Total Payment Enclosed

Credit Card: VISA MasterCard American Express Discover (Please Circle One.)

Account number: _____ Expiration Date: _____

Signature: _____

Address: _____

City, State & Zip: _____

Telephone: _____

Email: _____

If a family membership, please give names of others in your family to be covered by this membership:

Mail this form and check to: Palomar College Foundation Office
1140 West Mission Road
San Marcos, CA 92069-1487
Please make check payable to: Palomar College Foundation
Write "Arboretum" in the memo line.