

2011 Calendar of Events

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

Free Workshops & Lectures are Open to the Public!

Saturday, August 13 Basic Plant Identification Lecture

with Botanist Wayne Armstrong

10:00 am to Noon

Room: NS-259

(Natural Sciences Building - San Marcos Campus) and the Arboretum

An introduction to how plants are classified, with particular emphasis on flowering plants (angiosperms). This two hour lecture will discuss vegetative and reproductive terminology, with a brief introduction to phylogenetic classification using chloroplast DNA. Several plant families will be used to illustrate some of the taxonomic revisions in the new revised Jepson Manual of California Plants, including Wayne's favorite group the duckweeds, formerly in the family Lemnaceae, but now placed in the arum family (Araceae).

RSVP Tony Rangel by August 11th if you plan to attend this lecture.

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

For more information about the lecture,
email: mrwolffia@cox.net
<http://waynesword.palomar.edu>

See Photos of the 2010 Plant Classification Lecture

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, construc-

tion 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

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

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

Cycads1: David Minks in the classroom and



Cycads2: Tony showing the class a cycad near the Science Bldg.



David Minks of Indian Rock Cycads and Palms presented two lectures for the Friends of the Palomar College Arboretum on March 26 and April 2: "A Beginner's Approach To Growing Palms in Southern California" and "A Beginner's Approach To Growing Cycads in Southern California." The lectures contained a lot of useful and fascinating information about these two types of beautiful landscape plants, including proper soil types, fertilizers, and shade requirements. David also discussed container-grown and proper landscape planting, and the investment value of these remarkable plants. At the conclusion of the lectures, Tony Rangel took the participants on a tour of the palms and cycads on campus. David is truly an expert on the cultivation of these plants and grows splendid specimens of palms and cycads at his nursery on Mountain Meadow Road in Escondido. For more information, please refer to his website at: <http://www.indianrockcycadsandpalms.com>

Araucaria Family: Forests of the Southern Hemisphere

The araucaria family (Araucariaceae) contains three genera and 41 species of cone-bearing trees: Araucaria, Agathis and Wollemia. They are tall trees native to forested regions of the southern hemisphere, including South America, Australia, New Zealand and New Caledonia. During the Jurassic Period, the Araucariaceae had an extensive distribution in both hemispheres, extending as far north as England, Greenland and Sweden. In majestic size and beauty, they certainly rival the coniferous forests of North America and Eurasia. In fact, they are considered the southern counterpart of our northern pine forests. Although "pine" is often used in common names for members of the araucaria family, none of these trees are true pines of the family Pinaceae. Fossil



A Bunya-bunya tree in the Palomar College Arboretum silhouetted against the moon. See the article on the back >



Palomar College Arboretum with parana pine in foreground. Two additional Araucaria species are shown in the distance.

evidence indicates that ancient araucaria forests resembling present-day species date back to the age of dinosaurs. These remarkable trees grow in the "prehistoric garden" at the Palomar College Arboretum, along with ferns and cycads.

Several araucaria species grow in the Arboretum, including the Australian bunya-bunya (*A. bidwillii*) and hoop pine (*A. cunninghamii*), the South American parana pine (*A. angustifolia*), and the Norfolk Island pine (*A. heterophylla*). A fifth species with a slender, columnar crown is often confused with the Norfolk Island pine. It is called the Cook pine (*A. columnaris*) and is native to New Caledonia. It is named after Captain James Cook and is naturalized throughout the Hawaiian Islands. Cook pines were exported as container-grown "Christmas trees" to the U.S. mainland. Although *A. columnaris* is not listed in the Sunset



Stiff, sharp leaves and pollen cone of a parana pine (*Araucaria angustifolia*).

Western Garden Book 8th Edition, there are specimens of this tree throughout San Diego County, including the Palomar College Arboretum. A sixth araucariad in the Arboretum is the dammar pine (*A. robusta*). A related timber tree in northern New Zealand called the kauri pine (*A. australis*) was documented at 169 feet tall and 45 feet in circumference. As of 2001 it was approximately 2000 years old.

Trees in the araucaria family produce pollen-bearing male cones and seed-bearing female cones that are quite large in some species. In fact, seed cones



The prickly seed cones of Cook pine are very similar to petrified cones in Patagonia dating back 165 million years.

of the bunya-bunya are larger than pineapples in size and weight! Fossil araucaria trees in Patagonia dating back more than 160 million years have petrified seed cones that are remarkably similar to cones produced by araucaria trees in the Arboretum.

Perfectly preserved logs in Arizona's Petrified National Park are actually remnants of an ancient tropical forest that once lived in Central America when all the continents were united into the vast super-continent Pangea. Most of the logs were previously assigned to a presumed distant relative of Araucaria; however, new evidence indicates that these fascinating deposits of petrified logs represent a broad diversity of conifer species. Some authorities postulate that vast Baltic amber deposits dating back 60 million years ago may have come from ancient araucariad forests similar to the resinous kauri forests of New Zealand.



Green seed cones of the bunya-bunya weigh 10 pounds or more!

A walk along the Prehistoric Garden path lined with trees of the araucaria family is truly a glimpse into the geologic past. They represent a unique family of cone-bearing trees that has changed very little during the past 200 million years. These marvelous trees are living descendants of a time when dinosaurs ruled the earth.

For more information about the Araucariaceae, please refer to the following article: Armstrong, W.P. 2010. "The Araucaria Family: Past & Present." *Pacific Horticulture* 71 (1): 4-11.



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: _____

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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.

