

New Trails and Irrigation Systems for the Arboretum

In 2007, Palomar College set aside a small portion of Prop M monies to enhance the college Arboretum located opposite the Natural Sciences building on Comer Circle. Some of the funds paid for an architect to design trails and irrigation systems for the entire 10 acre Arboretum site. The remaining funds will pay for the construction of trails and irrigation. The architect plans are now complete and we expect construction to begin sometime next year. All of us on the Friends of the **Palomar College Arboretum Committee** are excited about the design, as it will provide better accessibility and more reliable and efficient watering of the individual gardens.

For years the Arboretum was accessible only to those not confined to wheelchairs. Now once construction is complete, the new trail systems will allow everyone the opportunity to experience and learn from the ever growing collection of beautiful trees and shrubs in the Arboretum. Arboretum Home Page: <http://www.palomar.edu/arboretum>

Arboretum General Meetings

2nd Wed of each month: 5:30 pm to 6:30 pm

San Marcos Campus in Room RS-5

For more information contact Tony Rangel,
Arboretum President arangel@palomar.edu
(760) 744-1150 ext. 2133

The Friends would like to thank the many individuals and groups for their support with donations and volunteer work.



Become a member of the Friends of the Palomar College Arboretum!

Support our efforts to promote, enhance, and protect our Arboretum. The Arboretum is important place for us and future generations to enjoy, study and enrich our lives.

Benefits of becoming a member of the Friends of the Palomar College Arboretum:

- Free annual campus parking permit for community members
- Free workshops, tours, lectures and activities
- 10% discount at Arboretum plant sales
- Quarterly newsletter
- Free members-only annual dinner

Please join today!

(See Membership Form below)

Membership Application for the Friends of the Palomar College Arboretum	
Date:	Mr. and Mrs. / Ms. / Miss / Mr. / Mrs.
Name:	Student & Senior 60+: \$10 Individual: \$20 Family: \$40 Founding: \$125 Sustaining: \$500 Corporate Museum Associates: \$1,000 Donation
\$	I have enclosed a donation to benefit the Arboretum
\$	Membership
\$	Total Payment Enclosed
Address:	City, State & Zip:
Telephone:	Email Address:
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 Friends of the Palomar College Arboretum 1140 West Mission Road San Marcos, CA 92069-1487 Please make check payable to: Palomar College Foundation Write "Arboretum" in the memo line.	

Friends of the PALOMAR COLLEGE ARBORETUM Newsletter

Volume 1 • Number 1 • October, 2010

Annual Plant Sale!

FREE TO THE PUBLIC

Please come join us for some great buys!

When: Thursday, October 7, 2010

Time: 8:00 am - 3:00 pm

Where: On the lawn near the Flag Pole
San Marcos Campus

- Great selection of bamboo, courtesy of Bamboo Headquarters.
- Discovery Island Palms will be here selling Palms and Cycads.
- And many other beautiful plants.

All proceeds go for the care and feeding of our beautiful Palomar College Arboretum.

Members of the Friends of the Palomar College Arboretum will be given a 10% discount on selected plants.



Fall Beautification Day Event

CLEAN-UP DAY AND BROWN BAG LUNCH

When: Saturday, October 9, 2010

Time: 9:00 am - Noon

Where: San Marcos Campus
Meet at the Patron's Pavilion in the Arboretum

There will be a tour of the Arboretum after lunch. This will be a "Brown Bag" (bring your own lunch) day. Water will be provided. Please bring your rake, shovel, gloves, sunscreen, and hat.

For more information contact **Tony Rangel**,
Arboretum President
arangel@palomar.edu
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We greatly appreciate and thank you for your contribution to campus enhancement projects that will benefit all of us. Volunteers have made a huge difference in the care and maintenance of the Arboretum. Volunteers are welcome all year round.

2010 Arboretum Tours, Workshops & Lectures

This year we offered several tours, workshops, and lectures to the public free of charge. Here are some photos of those events. See more photos online on our Calendar of Events webpage.

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

Plants of Palomar College Walking Tour with Tony Rangel Thur. June 3

Guests walked throughout the campus and end in the Cactus and Succulent Garden. This tour allowed attendees to discover the great diversity of plants here on campus. We will touch on some history of where the plants came from, how often they have been moved or trimmed and the reasons for having such a diverse collection of plants on a community college campus.

Coastal Sage Scrub Walk with Wayne Armstrong Sat. June 5

The coastal sage scrub is a unique wildlife habitat in southern California composed of many species of plants and animals. Although it once covered vast areas of coastal San Diego County, it has been greatly reduced to small, isolated areas, primarily due to extensive urbanization during the past three decades. It is quite distinct from chaparral, and is now considered an endangered plant community.



From cover more: Coastal Sage Scrub Walk with Wayne Armstrong, Sat. June 5



Cactus and Succulent Workshop with Dick Henderson Sat June 5

The cactus and succulent garden, located at Comet Circle Drive and Mission Road, offers about 3,000 varieties of plants from around the world. The workshop will include a tour of the garden, a discussion of the use and history of the plants and the basics of succulent plant care. We will then take cuttings of "easy to grow" succulents, pot them, and you can take the plant home.



Planting With Children with Dick Henderson Sat. July 17

For kids 9 and older and kids at heart (the parents/guardian). The workshop included a tour of the garden, a discussion of the use and history of the plants and the basics of succulent plant care. We will then take cuttings of "easy to grow" succulents, pot them, and you can take the plant home.

Basic Tree Trimming Workshop with Tony Rangel & Todd McGurn Sat. July 31

This work shop was intended to educate home owners on the proper trimming techniques for small garden and lawn trees. Tony and Todd discussed the proper trimming techniques with respect to growth rates and growth habits, as well as when and why to trim trees.



Plant Classification Lecture with Wayne Armstrong Sat. Aug. 28

An introduction to how plants are classified, with particular emphasis on flowering plants (angiosperms). The lecture discussed vegetative and reproductive terminology, with a brief introduction to phylogenetic classification using chloroplast DNA. Several plant families was 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).



Up Coming Events in November:

Saturday, November 13, 2010

Bamboo Lecture with Ralph Evans

San Marcos Campus Room 258

Time will be announced later.

Saturday, November 20, 2010

Members Holiday Social Garden Walk and Plant Crafts

2:00 - 4:30 pm, San Marcos Campus

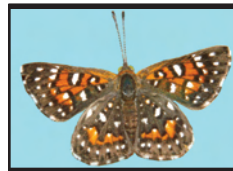
More details to come later.

Please check our Arboretum website for updated information.

Noteworthy Plants of the Arboretum

The Coastal Sage Scrub: An Endangered Plant Community

by Wayne P. Armstrong



Behr's Metalmark



Red Bush Monkeyflower



Wild Four O'clock



Weed's Mariposa Lily

The native vegetation bordering the Palomar College Arboretum is called coastal sage scrub, a unique assemblage of plants that are indigenous to this region. This is a low scrubland plant community along the California coastal region extending south into northern Baja California. Coastal sage scrub is characterized by low-growing, aromatic, drought tolerant shrubs adapted to a Mediterranean climate with a winter wet season followed by a prolonged summer drought. It is often referred to as "soft chaparral" because the shrubs are not as tall, woody and densely spaced or as rigid as those of true chaparral, and their leaves are not as thick, tough and leathery (sclerophyllous). Coastal sage scrub generally occurs below 2,000 feet, primarily on dry, west-facing or south-facing slopes. For example, the south and west-facing slopes of Owens Peak ("P" Mountain) north of Palomar College are covered by coastal sage scrub and grassland; however, the northern slopes contain some indicator shrubs of true chaparral.

With the exception of scattered toyon (*Heteromeles arbutifolia*), lemonade berry (*Rhus integrifolia*) and laurel sumac, dominant shrubs of coastal sage scrub are not completely woody. Dominance refers to percentage cover, typically measured by line intercepts (transects) placed randomly over the hillsides. These quantitative measurements are important for field ecologists and valuable teaching aids for students majoring in biology. By far, the dominant shrubs are California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), bush sunflower (*Encelia californica*), red bush monkeyflower (*Mimulus aurantiacus* var. *puniceus*) and golden yarrow (*Eriophyllum confertiflorum*). Another dominant shrub called wild buckwheat (*Eriogonum fasciculatum*), is the primary food source for the caterpillar of Behr's metalmark (*Apodemia mormo virgulti*). Throughout this area is evidence of native Americans who once inhabited this region, including bed rock mortars where seeds were ground into meal.

Shrubs of the coastal sage scrub are adapted to the long, dry summers in several ways. Remaining dormant through the dry season, they may lose 80% of their water. During this time they drop many of their brittle, shriveled leaves or produce smaller leaves on secondary shoots. Root systems are generally

shallow because the plants are inactive much of the time. The shrubs are much easier to clear for firebreaks, compared with woody, well-anchored shrubs of true chaparral. The oily, resinous leaves help to conserve vital moisture, but increase their flammability. The dominant shrubs are fire adapted with seeds that readily germinate after fire. This also includes numerous species of post burn wildflowers that bloom in profusion following the winter and spring rains. Like most shrubs of true chaparral, laurel sumac resprouts from large, subterranean burls called "lignotubers."

The native scrub vegetation adjacent to the Palomar College Arboretum is not chaparral. It does not contain the dominant shrubs of true chaparral, such as chamise (*Adenostoma fasciculatum*), scrub oaks (*Quercus*), California lilacs (*Ceanothus*), mountain mahogany (*Cercocarpus*) and manzanitas (*Arcostaphylos* & *Xylococcus*), although the latter shrubs are common in the nearby San Marcos and Merriam Mountains that border Twin Oaks Valley.

Coastal sage scrub is an endangered plant community in coastal San Diego County, primarily due to the clearing of land for agriculture and housing developments. It has been estimated that less than 20% of the original extent of this vegetation may remain in southern California. Coastal sage scrub contains some seriously threatened animal species, such as the California gnatcatcher (*Poliophtila californica*), not to mention several endangered reptiles and insects. In fact, the gnatcatcher was documented in our local coastal sage scrub during an environmental impact study contracted by Palomar College. This plant community has been extensively studied by wildlife biologists and numerous articles have been published about it. Governmental agencies such as the U.S. Fish & Wildlife Service and California Department of Fish & Game are well aware of its endangered status. For these reasons, it is very important to preserve and protect our local native coastal sage scrub vegetation.

WEB LINKS

Images of local coastal sage scrub:

<http://waynesword.palomar.edu/arbing8.htm>

Wildlife of local coastal sage scrub:

<http://waynesword.palomar.edu/labman12.pdf>