

SERPENTINE ENDEMIC



Serpentine Godetia. Clarkia gracilis ssp. gracilis (Onagraceae)



Mt. Tamalpais Jewel Flower (IB.2) Streptanthus glandulosus ssp. pulchellus (Brassicaceae)



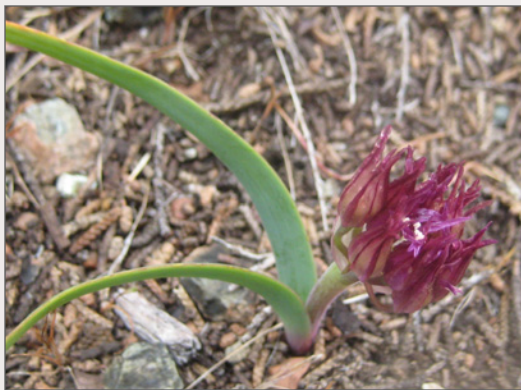
Oakland Star Tulip. Calochortus umbellatus. (Liliaceae)



Sargent Cypress. Cupressus sargentii (Cupressaceae)



Leather Oak, Quercus durata var. durata (Fagaceae)



Sickle Leaf Onion. Allium falcifolium (Alliaceae, formerly Liliaceae)

Chaparral is a plant community of predominately evergreen shrubs that grows in areas with a Mediterranean climate. Mediterranean climates occur in the coastal mid-latitudes where there is a cold ocean immediately off-shore and a large high-pressure air mass extending from the ocean over the adjacent landmass. Summers are hot and dry, winters are cool and wet; with unpredictable rainfall that varies greatly from year to year. Prevailing winds from the ocean bring cool, damp weather; however occasional strong winds from inland are hot, dry and gusty, and bring fire storm weather to the chaparral.

Serpentine Swale



Photo by Jordan Herrmann

Serpentine is the California State Rock. It is formed when tectonic plate movement deep within the Earth scrapes up blobs of magma. As these inclusions reach the surface through a combination of tectonic movement and weathering, they react with groundwater to form the familiar glassy, greenish outcrops visible in many locations on Mt. Tamalpais. Serpentine rocks are very rich in iron and magnesium as well as heavy metals such as nickel; and are lacking in calcium, molybdenum, sodium and potassium silicates. Consequently few plants are able to survive on Serpentine, and those that do are frequently rare endemics with unique adaptations.



Photo by Jordan Herrmann

Chaparral Plants of Mt. Tamalpais

The Mt. Tamalpais Interpretive Association is a volunteer organization whose purpose is to promote the conservation, education and interpretation of California State Parks, primarily at Mount Tamalpais State Park.

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“It is the chaparral that gives to Mount Tamalpais its distinctive texture, the same effect that is produced on many of the lower mountains in California by this dense and uniform covering of shrubs. From a distance, there is a velvety quality that characterizes it and gives depth to the blues and purples that pervade the slopes; from near at hand there is still that seeming smoothness and a lawnlike quality that belie the tough and rugged texture of the plant cover. Up steep slopes, over rolling summits, and across broad flats spreads the unbroken array of shrubs, dense, erect, stiff-- the pile in the fabric of the mountain’s mantle.”

John Thomas Howell, Marin Flora, CalAcademy & CNPS, 2007

CHAPARRAL FAVORITES



Chaparral Oak. Quercus wislizenii
(Fagaceae)



Death Lily. Zigadenus fremontii var fremontia (Lilaceae)



Woolly Paintbrush. Castilleja foliolosa
(Scrophulariaceae)



Blue Blossom California Lilac. Ceanothus thyrsiflorus (Rhamnaceae)



Chamise. Adenostoma fasciculatum.
(Rosaceae)



Tamalpais Lupine. Lupinus albifrons var. douglasii (Fabaceae)



Chaparral Pea. Pickeringia montana var. montana (Fabaceae)



Chinquapin. Chrysolepis chrysophylla var. minor (Fagaceae)



Eastwood Manzanita. Arctostaphylos glandulosa ssp glandulosa (Ericaceae)



Bush Poppy. Dendromecon rigida
(Papaveraceae)



Bush Monkey Flower. Mimulus aurantiacus (Scrophulariaceae)

References:

Ronald D. Quinn and Sterling G. Keeley, Introduction to California Chaparral, University of California Press, Berkeley, CA. 2006

Arthur R. Kruckerberg, Introduction to California Soils and Plants. University of California Press, Berkeley, CA 2006

John Thomas Howell, Frank Almeda, Wilma Follette, and Catherine Best. Marin Flora. California Academy of Sciences and California Native Plant Society (Marin Chapter). 2007

John McPhee, Assembling California, Farrar, Straus and Giroux, New York, 1993.

Plant photos and brochure by Marguerite Murphy, (7/2009)