

PALOMAR

from tepee to telescope



Catherine M. Wood

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COFFEE BERRY OR "CASCARA SAGRADA" *Courtesy of May H. Negley*

NATIVE PLANTS OF PALOMAR

The State makes it a misdemeanor, punishable by fine or imprisonment for any person to cut, destroy, mutilate or remove native trees, shrubs, ferns, herbs, cacti and flowers growing along highways, or on public lands, except in certain specified cases. The county went still further and passed "An Ordinance of the County of San Diego, State of California, prohibiting the mutilation or destruction or collection or removal of all native wild plants or parts thereof." This also has certain exceptions and provides that the County Horticultural Commissioner may issue "permits" for educational or scientific purposes.

Any county fire warden, forest ranger or peace officer of San Diego County has power to enforce this ordinance.

Of the multitude of trees, shrubs, flowers and ferns growing on Palomar Mountain, a few which seem most interesting to people in general are presented here in a very informal manner. They have been divided into groups according to the type of locality in which they occur, but there is necessarily some overlapping. The general aim has been to list the plants of each group in their seasonal order. Such terms as "early spring" and "fall" have been used instead of the names of the months because the development of the plants depends upon climatic conditions, which are not the same each year. Scientific terms have been avoided except in the case of botanical names. All sketches have been reduced to $\frac{1}{4}$ natural size unless otherwise indicated.

TREES OF THE MOUNTAIN TOP



Fig. 1. White Fir (*Abies concolor*)
Short, stiff needles. Bark white in young trees.

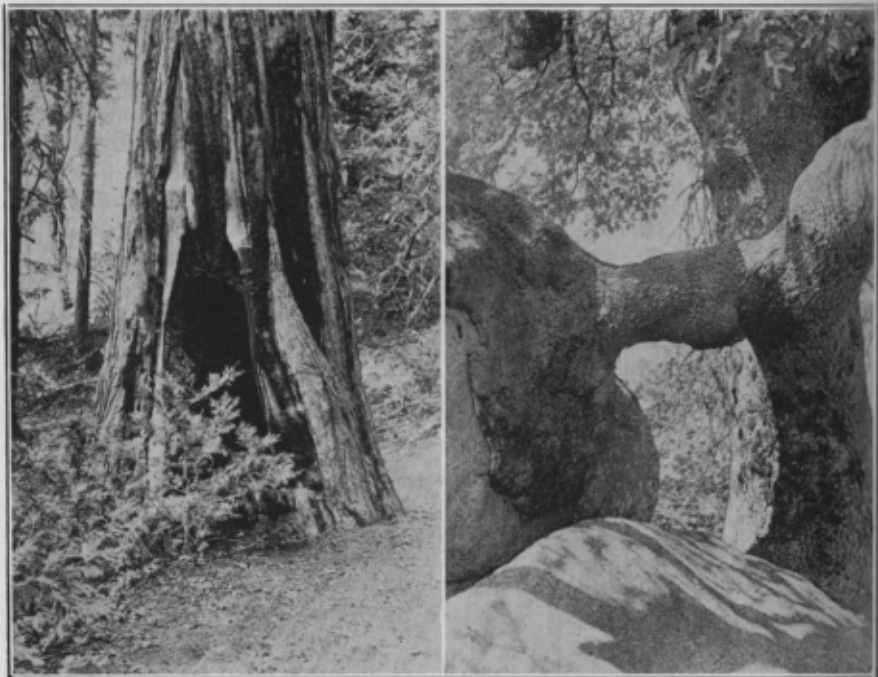


Fig. 2. Incense Cedar (*Libocedrus decurrens*) Stiff, lacy foliage, cinnamon brown, shreddy bark. Good lumber tree.

This Black Oak (*Quercus Kelloggii*) apparently tried to protect its limb from injury caused by rubbing against the rock.



Fig. 3. White Alder (*Alnus rhombifolia*) Tall tree growing along streams and in wet places. Leaves ovate. Bears catkins and tiny cones.



Fig. 4. Big-cone Spruce (*Pseudotsuga macrocarpa*) Tall tree characterized by long, spreading "arms," with short needles, drooping branchlets and slender, open cones about six inches long. Found commonly on canyon slopes.

Fig. 5. Big-cone Pine (*Pinus Coulteri*) Long needles in threes. Cones sometimes a foot long. Abundant along the east grade.

No Fig. Yellow Pine (*Pinus ponderosa*) Cones three to five inches long. Large tree with yellowish brown bark, divided into plates. Best specimens in Doane Valley.

Fig. 6. California Black Oak (*Quercus Kelloggii*) The "Eastern Oak" of Palomar. Has large lobed leaves which fall in winter. Produces acorns liked best by the Indians and band-tailed pigeons.





Fig. 7. Golden Oak (*Quercus chrysolepis*) Also called Canyon oak, Maul oak, and Valparaiso oak. Leaves and acorns variable. Typical acorns, rather flat with rounded cups sometimes over two inches across. A food tree of the Indians—La Jolla Indians make trips today to trees in State Park.

Fig. 8. Mountain Dogwood (*Cornus Nuttallii*) Small, canyon tree, blooming early in spring. Flower clusters surrounded by four to six white bracts, the whole simulating a single flower about four or five inches across. A shrubby Dogwood, *Cornus californica*, having flower clusters without bracts, grows along more open streams.



No Fig. Willow (*Salix lasiolepis*) Shrubby tree growing along meadow streams and in springy spots.

No Fig. Elderberry (*Sambucus coerulea*) Shrubby tree with large, creamy, flat blossom heads. Berries floury.

A FEW NOTEWORTHY SHRUBS



Fig. 9. Poison Oak (*Rhus diversiloba*) Shrubby in sunny places, and called poison oak; climbing in shady places, so often called poison ivy. Leaves turn a beautiful red in fall, consequently are frequently picked by unsuspecting people. Leafless in winter. White berries in summer.



Fig. 10. Squaw Bush (*Rhus trilobata*)
Grows in clumps in sunny spots. Often mistaken for Poison Oak. Seeds red when ripe. The tough stems were used by the Indian squaws in basket making.

Fig. 11. Wild Lilac (*Ceanothus Palmeri*)
Shrub, six to twelve feet tall, bearing fragrant, white flower clusters, often six inches in length, in early spring. Forms dense thickets in some spots on top of the mountain. A blue-flowered species *Ceanothus divaricatus* var. *eglandulosus*, grows on the lower slopes.



Fig. 12. Choke Cherry (*Prunus demissa*)
Common shrub of the mountain top, blooming in early spring with flowers in white spikes. Fruit red when ripe, and very astringent. Wild Cherry, *Prunus emarginata*, is also found on Palomar, in low thickets.



Fig. 13. Snow Drop Bush (*Styrax officinalis*) Tall shrub found on both east and west grades. Pendulous flowers suggesting orange blossoms appear in May or June.



Fig. 14. Western Azalea (*Rhododendron occidentale*) Probably the best known flower of the region. Found in most of the damp canyons. Honey made from the sweet-scented flowers is said to be poisonous, but this fact has not been proved.





Fig. 15. Wild Currant (*Ribes nevadense*) Light green, slender, branched shrub, with delicate pink blossoms, frequent along canyon streams. Fruit dark when ripe.

Fig. 16. Wild Gooseberry (*Ribes Roezlii*) Low, prickly, sunloving shrub. Attractive purplish flowers. Fruit prickly, turning purple when ripe.



Fig. 17. Coffee Berry (*Rhamnus californica* var. *tomentella*) Also called Pigeon Berry because the pigeons feed on the fruit which somewhat resembles that of the coffee plant. Widely known locally as Cascara Sagrada although that name should properly be applied only to the closely related *Rhamnus Purshiana* which grows farther north. Cascara Sagrada is the name supposedly given by the Mission Fathers because of the medicinal properties of the bark, and means "Sacred bark."

Fig. 18. Mountain Mahogany (*Cercocarpus betuloides*) Tall, slender, woody shrub, not conspicuous until long, feathery "tails" develop on the seeds.



Fig. 19. Bush Pentstemon (*Pentstemon ternatus*) Bushy shrub. Slender flower stalks, with red tubular blossoms. Frequent on the mountain at lower altitudes. Leaves commonly in threes.

Fig. 20. Wild Buckwheat (*Eriogonum fasciculatum* var. *polifolium*) Stiff shrub with slender flower stalks bearing flat clusters of creamy blossoms which turn brown with age. This plant covers many of the south slopes and is an important bee plant.



Fig. 21. White Sage (*Salvia apiana*) Aromatic, greyish shrub, with tall, slender flower stalks bearing small, whitish flowers; common on middle and lower mountain areas. Valuable bee plant.

No Fig. Manzanita (*Arctostaphylos drupacea*) Tough, matted shrubs, forming thickets in many open spots. The Spanish name "Manzanita" means "Little apple," referring to the fruit. Unfailing means of identification—crooked branches, with smooth, red bark, often covered with bits of peeling old bark.

No Fig. Snow Berry (*Symphoricarpos albus*) Shrub about two feet tall with slender branches. Grows on shaded hillsides. Conspicuous in fall because of small clusters of white berries. Near it are sometimes found the red berries of the Wild Honeysuckle (*Lonicera subspicata*).



Fig. 22. Giant Nettle (*Urtica gracilis* var. *holosericea*) A dangerous plant on account of its painful "sting." Grows four to ten feet tall along streams and in damp areas. The whip-like stalks bear rough, greyish leaves.



Fig. 23. False Hellebore (*Veratrum californicum*) Sometimes called Skunk Cabbage. Coarse plant of the lily family, first seen in early spring in marshy spots as an attractive rosette. Leaves later appear boat-shaped. Flower stalk three to five feet high, bearing greenish-white flowers in summer.



Fig. 24. Blue Violet (*Viola adunca*) Typical locality, banks of rivulets in grassy meadows. Blooms in early spring. Another blue species (*Viola nephrophylla*) is found in sunny, springy places, while a yellow-flowered one (*Viola purplea*) is found on sunny, well-drained slopes. The violets are not common.



Fig. 25. California Buttercup (*Ranunculus californicus*) These graceful flowers with varnished petals, give a golden glow to all the meadows in spring.

Fig. 26. Cinquefoil (*Potentilla gracilis*) "Five-finger." Foliage reminds one of that of the wild strawberry. Flowers yellow. Another species, tall with creamy flowers (*Potentilla glandulosa*) is found in shadier spots, while a smaller, white-flowered one (*P. Bolanderi* var. *Clevelandii*) with light green, lacy foliage, is found around springy spots.



Fig. 27. Slender Paint Brush (*Castilleja stenantha*) Annual. Grows in grassy meadows. Red flower. Other red species are found on the pine slopes, and a yellow one on the lower west grade.



Fig. 28. St. John's Wort (*Hypericum formosum*, var. *Scouleri*) Erect stems, in meadows, bearing yellow clustered flowers with brush-like stamen arrangement. "Tinker's Penny," a small, matted plant (*Hypericum anagalloides*) sometimes covers the ground in springy places. Tiny yellow flowers.



Fig. 29. Columbine (*Aquilegia truncata*) Delicate plant, about three feet tall, growing along shaded streams. Blossoms, a delicate scarlet, tinged with yellow, with spurs. Blooms in summer. Not common.



Fig. 30. Lemon Lily (*Lilium Parryi*) Yellow lily growing in sunny springy spots. Stems one to three feet high. Rare.





Fig. 31. Cardinal Mimulus (*Mimulus cardinalis*) Leafy plant, about two feet tall, in wet sunny places in summer. The yellow mimulus, with brown dotted throat (*Mimulus guttatus*) is also found in wet spots. Often called "Monkey flower." **Fig. 31a.**



PLANTS OF THINLY SHADED SLOPES



Fig. 32. Angelica (*Angelica tomentosa*) Appears with the ferns in early spring, as a clump of coarse, divided leaves from which a flower stalk, three or four feet tall, topped with a flat, white flower-cluster, develops in summer. Occurs practically all over the mountain.

Fig. 33. Thimble Berry (*Rubus parviflorus*) Plant about two feet high, with broad leaves and white flowers. Stems hairy, not thorny. Berry red when ripe and hollow when picked. Birds usually take the few berries that mature. Common.



Fig. 34. Monardella (*Monardella nana*) Delicate appearing plant, six to ten inches tall with loose head of pinkish-yellow flowers. Spring. A scarlet-flowered species, (*Monardella macrantha*) is found on the wooded slopes of the State Park in summer. Not common.



Fig. 35. **Wild Strawberry** (*Fragaria californica*) Occasional in damp, shaded spots, especially on the west end of the mountain. Seldom fruits.



Fig. 36. **Pipsissiwa** (*Chimaphila Menziesii*) Plant about six to eight inches high, generally in tree-shaded spots where there is little other vegetation. Flowers pinkish-white with an elusive fragrance. Both flowers and leaves appear waxy. Not common.



Fig. 37. **Fairy Lanterns** (*Calochortus albus*) Plant about a foot tall—belongs to the Lily family. Is found in early spring on partially shaded north slopes. Not common. Flowers white, somewhat round, and nodding.



Fig. 38. **Buff Gilia** (*Collomia grandiflora*) Found frequently on thinly shaded slopes throughout the section. About a foot tall with a loose head of buff-colored flowers.



Fig. 39. **Tiger Lily** (*Lilium Humboldtii* var. *Bloomerianum*) Three to six feet tall with leaves in whorls, bearing num-

erous orange-red lilies with dark spots. Frequent on shaded hillsides in early summer.



Fig. 40. Wood Rose (*Rosa gymnocarpa*) Slender, scattered stalks, two to four feet tall with leaves and pink flowers more delicate than those of the common Wild rose (*Rosa californica*) which is also found on Palomar, in clumps in sunny locations. The Wood Rose grows in shaded spots. Typical locality—along road through north slope on west end of the mountain.

Fig. 41. Humming Bird's Dinner Horn (*Pentstemon Bridgesii*) Slender flower stalks about two feet high from low, spreading plant with tinges of red on the stems. Tubular flowers, red, with open mouth. Another species (*Pentstemon centranchifolius*) called Scarlet Bugler is found in sunny locations earlier in the season.



Fig. 42. Meadow Rue (*Thalictrum Fendleri*) Graceful, lacy-leafed plant, two or three feet tall, growing among the ferns in shaded places during spring and summer. Leaves often mistaken for those of Maidenhair fern or Columbine. Flowers inconspicuous.

FLOWERS OF SUNNY, WELL-DRAINED SLOPES

NOTE: Most of these flowers can be seen on the open south slopes along the eastern end of the Crest Line road,

which has been appropriately named "Rainbow Drive" because of the profusion of colors in spring and summer.

Fig. 43. **Baby Blue Eyes** (*Nemophila Menziesii*) Delicate, spreading plant, about six inches tall, with pale blue flowers. First wild flower of spring, appearing frequently on sunny banks surrounded by melting snow.



Fig. 44. **Western Wall Flower** (*Erysimum asperum*) Tall, slender stalks, two or three feet in height, topped by a head of four-petaled yellow flowers, the long pods forming below as the stalk extends its bloom upwards. Found frequently among the bracken in early spring.



Fig. 45. **Hulsea** (*Hulsea vestita* var. *callicarpha*) Flower stalks two or three feet high, with grey woolly leaves and stem, topped with a few brownish-yellow flower heads about two inches in diameter, resembling asters. One of the first wild flowers, commonly found among the bracken. Not found in summer.



Fig. 46. **Gilia** (*Gilia capitata*) Slender plant a foot or two high, with delicate leaves and bluish-white flower heads of pincushiony appearance.



Fig. 47. **Wild Hyacinth** (*Brodiaea capitata*) Slender, leafless stems about two feet tall, waving heads of blue flowers above the grasses. More fragile appearing than those of lower altitudes.



No Fig. **California Poppy** (*Eschscholtzia californica*) Spanish name "Copa de Oro" or "Cup of Gold", describes blossoms. Well-known annual with lacy, gray-green foliage.



Fig. 48. Wild Canterbury Bells (*Phacelia minor*) About a foot tall with sticky, hairy leaves, and tubular, purple flowers over an inch long. Not common. Typical locality—on gravelly banks on grade above Henshaw Dam, in early spring. *Phacelia Parryi*, noted for its purple saucer-shaped flowers about an inch across, is abundant on the Crest.

Fig. 49. Sticky Monkey Flower (*Diplacus longiflorus*) Sometimes classed as a mimulus. Shrub, rather compact, about two and a half feet tall, covered in spring with many tubular, open-mouthed flowers, yellow or salmon colored. Frequent at lower altitudes, especially on the east grade.



Fig. 50. Lupine (*Lupinus albifrons*, var. *emimens*) Plants with silvery foliage on low woody stems. Flower stalks two or more feet tall. Flowers violet, purple or sometimes white. Palomar is famous for these lupines, which bloom in spring.

Fig. 51. Yellow Mariposa Lily (*Calochortus Weedii*) Appears among bushes on dry slopes in late spring. Frequently two or more flowers on a branching stem. Flowers brownish-yellow, with brown spots. A lavender species is also found.



Fig. 52. Wild Sweet Pea (*Lathyrus strictus*) Climbs over bushes. Flowers rose colored.

Fig. 53. Dandelion (*Agoseris plebeia*)
Conspicuous only when in seed. Petals
not showy.



Fig. 54. Golden Star (*Bloomeria crocea*)
Cluster of small, yellow lily flowers on
stem about one foot high, found among
the grasses in summer.

Fig. 55. Blue Larkspur (*Delphinium*
Parryi) Slender, solitary plants, one to
two feet high in grassy locations on the
mountain top. Flowers blue. Another
species, *Delphinium decorum*, with
darker blue flowers grows in shadier
places.



Fig. 56. Red Larkspur (*Delphinium*
cardinale) Slender, three or more feet
high, growing in rocky exposed places,
or among the brush on dry hillsides.
Not common. Late spring.

Fig. 57. Clarkia (*Clarkia rhomboidea*)
Slender, about a foot tall. Flowers rose
colored with airy appearance.



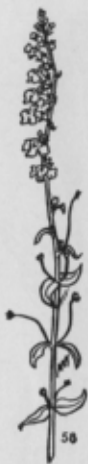


Fig. 58. **White Snapdragon** (*Antirrhinum Coulterianum*) Three feet or more tall, with white flowers opening and crowding each other on the end of the stalk. Blooms from early spring well into the summer.

Fig. 59. **Collinsia** (*Collinsia concolor*) "Chinese Houses." Lilac-flowered, slender plant, frequently growing in patches among the grasses and brush. Sometimes found in shady places.



Fig. 60. **Chia** (*Salvia Columbariae*) Stiff, square stems, one to three feet high, with "buttons" of small blue flowers. The seeds were an important food of the Indians.



Fig. 61. **Milkweed** (*Asclepias californica*) About three feet high with woolly, greenish-white foliage and purple flowers. Large seed pods in summer. It is said the Indians boiled the juice of another species, (*Asclepias eriocarpa*) also on Palomar, and used it for chewing gum. They used the fibre for weaving an apron.



Fig. 62. **Climbing Pentstemon** (*Pentstemon cordifolius*) Found on lower altitudes of the mountain, hanging over neighboring shrubs. Flowers red. Incorrectly called "Red Honeysuckle." *Pentstemon spectabilis*, a grayish-green plant with stiff leaves, is also found at lower altitudes. The flower stalks are about three feet high, bearing numerous tubular blue flowers along the stem.



Fig. 63. Mountain Sunflower (*Helianthus gracilentus*) Frequent on the Crest in summer. Conspicuous when leaning over the banks of the road. Flower heads about three inches across, borne on slender, rather naked, stalks.



Fig. 64. Yellow Monkey Flower (*Mimulus brevipes*) Slender plant about eighteen inches in height, frequent on disturbed places along the Crest road. Numerous clear yellow, tubular flowers, with open mouths.



Fig. 65. Creek Senecio (*Senecio Douglasii*) Daisy-like plant growing in dry washes, a foot or more tall. Flowers, yellow. Summer.



Fig. 66. Harvest Brodiaea (*Brodiaea coronaria*) Six to ten inches tall among grasses on meadow slopes. Bears several upturned blue bells. Summer.



Fig. 67. Blue Gilia (*Gilia densifolia*) Low, woody, matted plant overspread with delicate blue flower heads. Grows in the hot sunshine on dry banks or open places in summer. It is one of the mountain's most attractive plants.



Fig. 68. Slender Gilia (*Gilia tenuiflora* var. *caruifolia*) Airy, branching plant two or more feet high frequent in late summer on sunny, open banks. Often noticed as patches of blue. Flowers about one-half inch across.





Fig. 69. Purple Aster (*Aster Menziesii*)
Gray, woolly-leaved stalks bearing purple flowers about three-quarters of an inch across. Late summer.

Fig. 70. California Fuchsia (*Zauschneria californica*) Fall plant with leafy stems a foot or more high and scarlet tubular flowers hanging along the stalk. Often called "Humming Bird's Trumpet." Another species (*Zauschneria latifolia*) also grows on Palomar.



Fig. 71. California Goldenrod (*Solidago californica*) Gray foliage. Flower stalks approximately two feet tall, topped with tassels of yellow blossoms. At its best in the fall. There are two other species also on the mountain.

Fig. 72. Slender Buckwheat (*Eriogonum elongatum*) Slender stems, frequently over two feet in height, strung with tufts of attractive pinkish flowers. Especially noticeable in the fall because of its red color when wet.



Fig. 73. Mustang Mint (*Monardella lanceolata*) Slender, annual, conspicuous, because of its purple heads and pungent odor. Common in summer. Sometimes called "pennyroyal."



Fig. 74. Thorn-apple (*Datura meteloides*) "Jimson Weed." Coarse, evil-odored plant, with large, pointed, grayish leaves and white or blue-tinged, morning-glory-like flowers about six inches across. Used for a beverage in certain old Indian ceremonies. The name "Jimson weed" is said to be a contraction of "Jamestown weed." It was originally applied to *Datura Stramonium*, which grew around Jamestown, Virginia, and was mentioned by Captain John Smith. During the World War, some of the children of San Diego County earned "Pin-money" by drying and selling the weed, which was purchased for its drug qualities.



Fig. 75. Bird's Beak (*Cordylanthus filifolius*) Conspicuous, unattractive plant, widespread in late summer and fall. Sometimes called Mule Weed. Grows one to three feet in height with insignificant flowers, resembling birds' beaks, almost hidden in green, hairy-looking heads borne on the slender stems.



FOUR CONSPICUOUS FERNS

Fig. 76a. Wood Fern (*Dryopteris arguta*) Common on shaded slopes below 5000 ft. altitude.

Fig. 76b. California Sword Fern (*Polystichum munitum*) Fronds one to two feet long; in clumps on shaded rocky north slopes, especially on the west end.

Fig. 76c. Bracken (*Pteridium aquilinum*) Grows one to five or more feet tall on most of the open slopes of the mountain top.

Fig. 76d. Chain Fern (*Woodwardia radicans*) Height, one to four feet. Occasional in clumps along streams and in damp canyons.





CHOKE CHERRIES

Courtesy of May H. Negley