

COMMON WILDFLOWERS

OF YOSEMITE

SPECIAL ISSUE YOSEMITE NATURE NOTES

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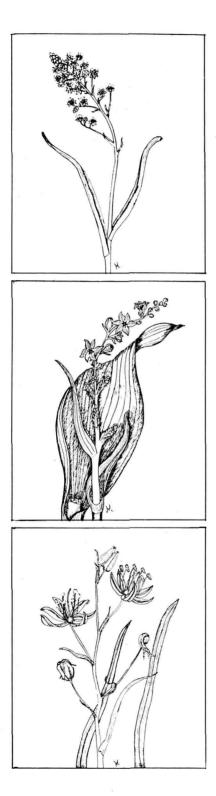
101 Wildflowers of Yosemite

By M. E. Beatty, C. A. Harwell, and J. E. Cole Illustrations by Mary V. Hood

This bulletin has been prepared to supply the need for a small publication dealing with the more common flowers of the Park. The illustrations were all drawn by Mrs. Mary V. Hood, through whose untiring efforts this publication has been made possible. The drawings, all from living specimens, represent several summer's work, therefore she has copyrighted them.

The text has been made simple and non-technical. Scientific names have been added because common names vary so much in different localities. Sub-specific names (those given for varieties within a species) have been omitted. The ''Manual of the Flowering Plants of California" by Dr. W. L. Jepson, has been followed for scientific names and for the order in which the plants are treated. Descriptions are of necessity brief and the reader is urged to consult standard flower texts for more detailed information. A number of these books may be read in the Yosemite Museum Library or may be purchased at the Museum sales counter.

The reader will undoubtedly discover a great number of flowering plants in the field that are not described in this bulletin, as over 1400 species have been recorded for the Park. Please do not pick flower specimens as this is strictly prohibited by park regulations. For identification of any plant vou don't recognize, write a thorough description and the naturalist on duty at the Museum will gladly help you determine it. Or visit the Museum Wildflower Garden where these 101 Wildflowers, together several hundred other with species are growing, all of them plainly labelled.



LILY FAMILY

DEATH CAMAS Zygadenus venenosus Wats.

Flowers small, numerous, greenish-white. Stems ¾ to 2 feet high. Leaves grass-like, mostly basal; often eaten by sheep with fatal results, hence the name Death Camas. Venenosus is Latin for poisonous. Grows in moist meadows as in Little Yosemite and Yosemite Valleys, but nowhere abundant.

CORN LILY or FALSE HELLEBORE Veratrum californicum Durand

Flowers small, numerous, dullwhite. Stems very stout, 3 to 6 feet high, and leafy like a corn stalk. Leaves large, 6 to 12 inches long, and broad, coarsely veined. Often mistaken for Skunk Cabbage which belongs to a different family. Blooms mid-summer in moist meadows above Valley rim. Best seen along Glacier Point Road in July.

BLUE CAMAS Camassia quamash Greene.

Flowers blue, loosely clustered at top of stems which are 1 to 2½ feet high. Leaves grasslike. Bulbs were extensively used by Indians for food. Scientific name taken from Chinook Indian words meaning sweet. Best seen in boggy meadows along the Glacier Point Road where the conspicuous flowers form mass effects of blue.

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LILY FAMILY

SOAP PLANT Chlorogalum pomeridianum Kunth.

Flowers few, scattered, white with purple veins, open only in late afternoon. Stems almost leafless, 2 to 5 feet high. Leaves numerous, often 2 feet long, margins wavy, unusually lying flat upon the ground. Indians used the bulbs for food, fish taking, and the fiber for brushes. Abundant around Wawona.

SWAMP ONION Allium validum Wats.

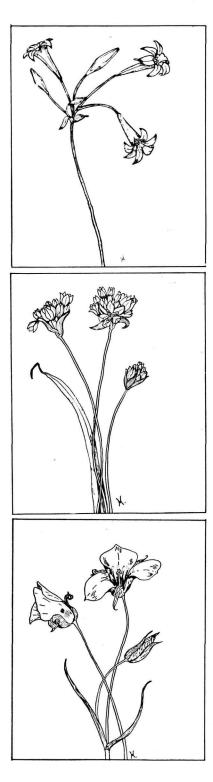
Flowers many, rose-purple, in dense umbrella-like heads. Stems stout, 1 to 3 feet high, two edged. Leaves 1 to 2 feet long, grass-like. Plant has strong garlic odor as signified by its Latin name Allium. The bulbs are used for food and flavoring. Fairly common in wet meadows at elevations between 4000 and 9000 feet.

GOLDEN BRODIAEA Brodiaea ixioides Wats.

Flowers golden-yellow, veined with brown, six-pointed and star shaped, in open clusters on stems $\frac{1}{2}$ to $\frac{1}{2}$ feet tall. Leaves few and grass-like. Bulbs used by Indians for food. Common in sandy areas up to 8500 feet where it is replaced by a similar species.



YOSEMITE NATURE NOTES



LILY FAMILY

HARVEST BRODIAEA Brodiaea coronaria Jepson.

Flowers 3 to 11, violet-blue, radiating umbrella-like from the end of the main stems, which are from 6 to 18 inches high. The leaves die before the plant blooms in late spring or early summer. The bulbs were eaten by the Indians. Best seen in Sierra foothills, Yosemite Valley, Wawona and occasionally higher.

COMMON BRODIAEA Brodiaea capitata Benth.

Flowers many, in head-like clusters of deep blue. Stems 6 to 18 inches high. Leaves grasslike, disappearing early. Bulbs eaten raw by Indians and the earlier settlers. Capitata means head. This the commonest brodiaea of the Sierra foothills is also found in Yosemite Valley and Wawona in early summer.

MARIPOSA LILY Calochortus leichtlinii Hook.

Flowers erect, cup-shaped, petals white with yellow base and a dark spot above the hairy gland. Stems stiff, erect, from a few inches to a foot or more in height. This or other related species may be found throughout the region and in a variety of shades. Mariposa is Spanish for butterfly.

LILY FAMILY

WASHINGTON LILY Lilium washingtonianum Kell.

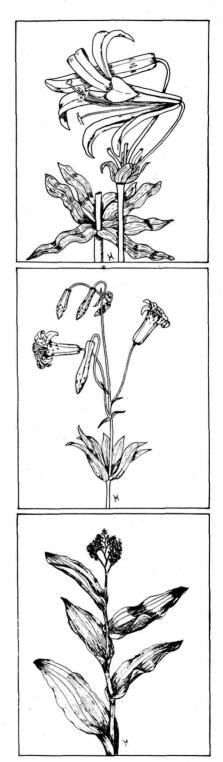
Flowers pure white, turning purple with age, very large and fragrant. Stems 2 to 5 feet high. Leaves 3 to 5 inches long, $\frac{1}{2}$ to $\frac{1}{2}$ inches wide. Grows on dry chaparral covered slopes, its Easter Lily-like flowers projecting above the protective thickets. Nowhere common but found from elevations of 6000 to 7500 feet.

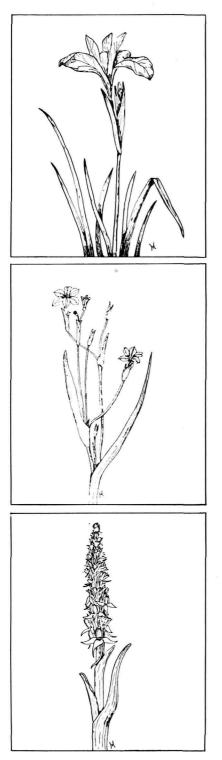
LITTLE LEOPARD LILY Lilium parvum Kell.

Flowers 2 to many, orangeyellow spotted with purple, 1 to 1½ inches long. Stems 1½ to 6 feet high. Leaves whorled, 3 to 4 inches long, 1 inch or less broad. Found commonly in moist situations up to 9000 feet. Best seen in Yosemite Valley near Happy Isles.

FALSE SOLOMON'S SEAL Smilacina amplexicaulis Nutt.

Flowers very small, white and in close clusters. Stems leafy, 1 to 3 feet high. Leaves 3 to 5½ inches long, many - nerved. Stems and under sides of the leaves usually rough with short hairs. Grows sparingly in shady woods. This and a related species may be seen up to elevations of 7000 feet.





IRIS FAMILY

WESTERN BLUE FLAG Iris missouriensis Nutt.

Flowers large, 2 to $2^{1}/_{2}$ inches long, petals pale blue to white. Stems 10 to 24 inches high, nearly naked except at base. Leaves about $^{1}/_{4}$ inch wide, mostly shorter than the stem. Best seen in El Capitan meadows in early summer.

BLUE-EYED GRASS Sisyrinchium bellum Wats.

Flowers small, about $\frac{1}{2}$ inch wide, blue with yellow at base, 3 to 7 per stem. Stems twoedged, $\frac{1}{2}$ to 2 feet high. Leaves grass-like, very narrow and long, but shorter than the stems. Plentiful in Yosemite Valley meadows, blossoming in late spring.

ORCHID FAMILY

SIERRA REIN-ORCHIS Habenaria leucostachys Wats.

Flowers white, in a long dense spike. Stems robust, 1 to 3 feet high, leafy throughout. Leaves long, 1 inch or less wide, upper ones shorter. This showy orchid is often encountered in wet, boggy places around Yosemite Valley and the Mariposa Grove of Big Trees.

ORCHID FAMILY

SPOTTED CORAL-ROOT Corallorrhiza maculata Raf.

Flowers brownish, spotted with purple. Stems 1 to 2 feet high. Leaves reduced to papery sheaths. This plant is a saprophyte or root-parasite, hence is without green herbage. Grows among pine needles and other decaying vegetation throughout the Yosemite region but nowhere common.

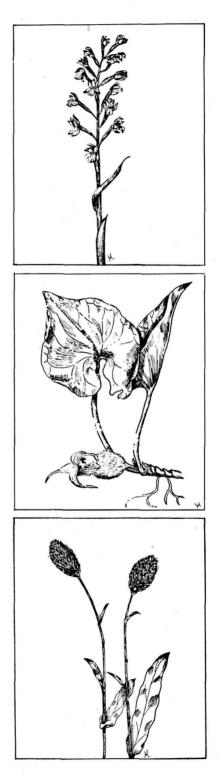
BIRTHWORT FAMILY WILD GINGER Asarum hartwegi Wats.

Flowers brownish, hairy, generally hidden by the clumps of broad, strikingly mottled, heartshaped leaves. Stems appear lacking, the rootstalks, or subterranium prostrate stems, are hidden among the dry leaves or duff. The rootstalks, although highly aromatic, are not used commercially. C o m m o n throughout the Yellow Pine belt in Yosemite.

BUCKWHEAT FAMILY

KNOTWEED Polygonum bistortoides Pursh.

Flowers white, in compact roundish or cylindrical terminal heads. Stems $\frac{1}{2}$ to 2 feet high. Basal leaves 3 to 5 inches long, $\frac{1}{2}$ to 1 inch wide, upper leaves smaller. Common as showy speckling of white flowers topping the green grass in wet meadows of moderate altitude.





BUCKWHEAT FAMILY

NUDE BUCKWHEAT Eriogonum nudum Dougl.

Flowers small, dull white to pink, crowded in ball-shaped heads in forks and on ends of stems. Stems 1 to 3 feet high, slender, without leaves (nudum). Leaves 1 to 2 inches long in a basal cluster. Common in dry areas throughout Park.

SULPHUR FLOWER Eriogonum umbellatum Torr.

Flowers sulphur-yellow, numerous, forming dense umbrellalike heads. Stems 3 to 12 inches high, many branched. Leaves small, white-woolly underneath and smooth above. Common at middle elevations on dry, rocky, open slopes, as on Sentinel Dome.

PURSLANE FAMILY

PUSSY PAWS Calyptridium umbellatum Greene.

Flowers rose-colored, in dense clusters at ends of stems. Stems erect or more commonly semiprotrate, 4 to 12 inches long, nearly bare of leaves. Leaves mainly basal, 1 to 4 inches long. Common in Valley and throughout Park in dry, open areas.

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PURSLANE FAMILY

MINER'S LETTUCE Montia perfoliata Howell

Flowers tiny, white to pinkish. Stems 1/2 to 1 foot high, bare except for a pair of united leaves just below flowers through which stems appear to penetrate. Other leaves basal. The succulent basal leaves and stems were eaten by Indians and miners as greens. Common in Yosemite Valley in shady spots.

PINK FAMILY

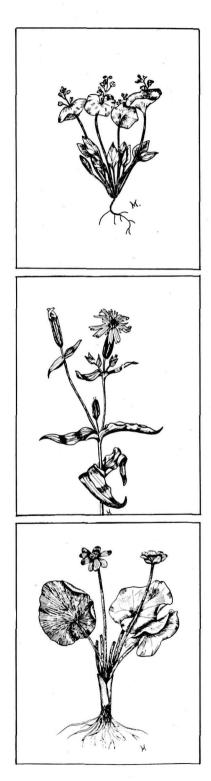
INDIAN PINK Silene californica Dur.

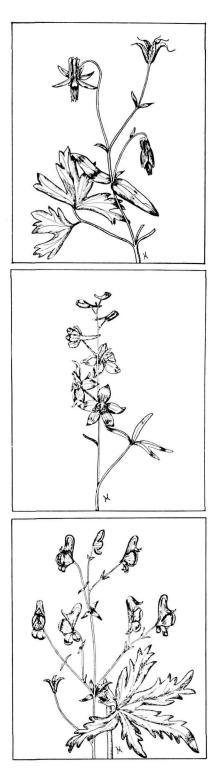
Flowers brilliant scarlet, over an inch across, with deeply cleft petals. Stems ½ to 1 foot high. Leaves 1 to 3 inches long. The common name "pink" refers not to the color but to the pinking (serrated edges) of the petals. Best seen in open wooded areas along the Wawona Road.

BUTTERCUP FAMILY

MARSH MARIGOLD Caltha biflora DC.

Flowers showy, white or bluish on back. Stems erect, 4 to 12 inches high, naked. Leaves 1 to 4 inches wide, basal. Grows in moist places at higher elevations such as wet meadows along Glacier Point Road.





BUTTERCUP FAMILY

RED COLUMBINE Aquilegia truncata F. & M.

Flowers red, with yellow centers, usually nodding. Stems 1 to 3 feet high, slender. Basal leaflets deeply lobed. Hummingbirds enjoy the nectar in the long flower-spurs. Common at all elevations in Park up to near timberline where it is replaced by the blue High Mountain Columbine.

$\label{eq:LARKSPUR} \begin{array}{c} \textbf{LARKSPUR} \\ \textbf{Delphinium decorum } F. \& M. \end{array}$

Flowers deep blue, in a loose cluster along stem. Stems slender, ½ to 2 feet high. Leaves few, lower ones deeply lobed. Best seen in meadows and open spaces of pine forests. Many species of native larkspurs are known to be poisonous to cattle and horses.

MONKSHOOD Aconitum columbianum Nutt.

Flowers blue, often mixed with white; helmet-shaped hoods distinctive. Stems 1½ to 3 feet high. Lower leaves five-lobed, 2 to 3 inches wide. Found in moist places at 4000 to 8000 ft. This particular species of monkshood is believed to be poisonous to cattle.

BUTTERCUP FAMILY

COMMON BUTTERCUP Ranunculus californicus Benth.

Flowers several, yellow, $\frac{1}{4}$ to $\frac{1}{2}$ inch wide. Stems loosely branched, 1 to 2 feet high. Upper leaves small and few, lower ones parted, the lobes toothed. Common in dry meadows of Yosemite Valley and Wawona.

POPPY FAMILY

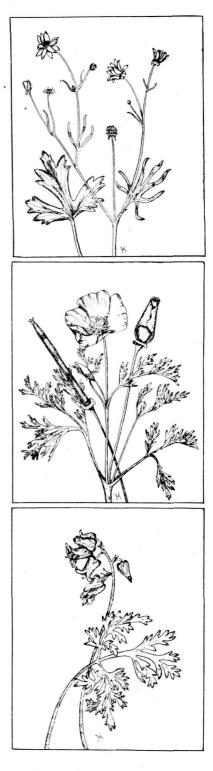
CALIFORNIA POPPY Eschscholtzia californica Cham.

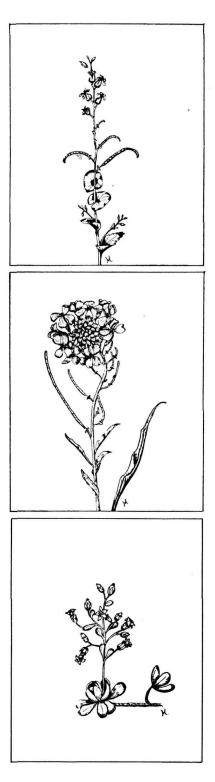
Flowers orange to pale yellow, 1/2 to 2 inches wide. Stems erect, leafy, 3/4 to 2 feet high. Leaves much dissected into segments 1 to 6 inches long. Found only at lower elevations such as Wawona and a few places in Yosemite Valley. Our state flower.

FUMITORY FAMILY

BLEEDING HEART Dicentra formosa DC.

Flowers rose-purple, heartshaped, clustered near end of stems. Stems naked, 8 to 18 inches high. Leaves with many lobes, all from creeping rootstalks. Grows in shaded woods in Yosemite Valley and up to 6000 feet in the Park.





MUSTARD FAMILY

SHIELD LEAF Streptanthus tortuosus Kell.

Flowers small, rose-purple or whitish with purple veins. Stems ½ to 3 feet high, many branched. Leaves oblong to roundish, the upper ones clasping the stems. Pods slender, 2 to 6 inches long. Common in Yosemite throughout the pine belt.

WESTERN WALL-FLOWER Erysimum asperum DC.

Flowers bright orange, in terminal clusters. Stems erect, 1 to 2½ feet high. Leaves narrow, 3 to 6 inches long, edges at times toothed. Common from the foothills up to about 8000 ft.

STONECROP FAMILY

STONECROP Sedum obtusatum Gray.

Flowers orange-yellow, small. Stems 4 to 6 inches high with few leaves. Leaves thick and succulent, in basal rosettes. Plant spreading and matted. Common at higher elevations in the Park, particularly in rocky areas. Formerly common on Sentinel Dome.

SAXIFRAGE FAMILY

ALUM-ROOT Heuchera micrantha Dougl.

Flowers minute, numerous, white. Flowering stems 1 to 2 feet high. Leaves mostly basal, roughly heart-shaped, 1 to 3¹/₂ inches wide, more or less toothed and lobed. The foliage is more attractive than the flowers and forms a lovely decoration on shady slopes surrounding Yosemite Valley.

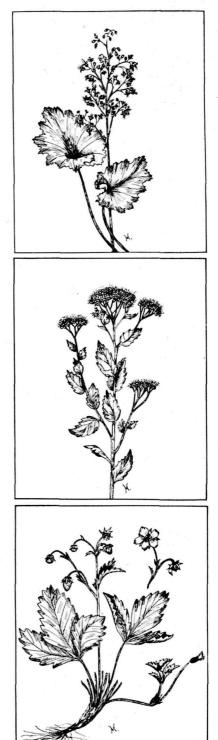
ROSE FAMILY

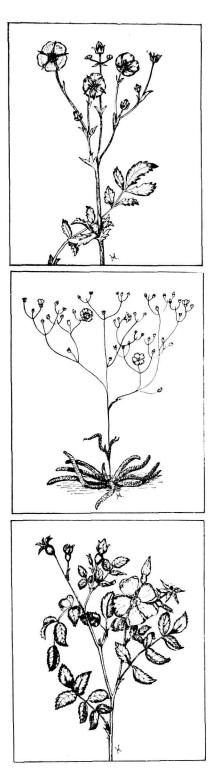
SPIREA Spiraea densiflora Nutt.

Flowers small, numerous, rosecolored, forming compact round terminal clusters $\frac{1}{2}$ to $\frac{1}{2}$ inches across. Stems woody, leafy, forming dense clumps up to 2 feet high. Leaves $\frac{1}{2}$ to $\frac{1}{2}$ inches long, edges toothed. A common low shrub best seen at Yosemite Falls, Tenaya Lake and Merced Lake.

WILD STRAWBERRY Fragaria californica C. & S.

Flowers white, $\frac{1}{2}$ to l inch wide, in irregular clusters. Nearly leafless stems 4 to 5 inches high. Leaves in threes, thin, edges toothed. Berries red and small. Found commonly up to 6500 foot elevation throughout Park. Berries eaten by chipmunks, birds and tourists.





ROSE FAMILY

YELLOW CINQUEFOIL Potentilla glandulosa Lindl.

Flowers yellow, solitary on ends of many branched stems which are $\frac{1}{2}$ to 2 feet high. Leaves with notched edges, mainly basal. This plant with a similar sub-species occurs throughout the Yosemite region.

MOUSE-TAILS Potentilla santolinoides Greene.

Flowers small, white, numerous, spreading widely from the main stems. Stems thin, nearly naked, 1/2 to 1 foot high, widely branched above. Leaves mainly basal, resembling worms or mouse-tails. Fairly common at higher elevations on tops of domes and other open sandy places.

CALIFORNIA WILD ROSE Rosa californica C. & S.

Flowers rose-pink, 1/2 to 2 inches wide. Stems erect, 1 to 6 feet high, with stout prickles. Leaves 5 to 7, sharply toothed. This shrub is common in Yosemite up to elevations of 7000 feet. The flowers are both abundant and fragrant.

ROSE FAMILY

MOUNTAIN MISERY Chamaebatia foliolosa Benth.

Flowers white, $\frac{1}{2}$ inch wide, in loose terminal clusters. Stems low, woody and shrub-like. Leaves lacy, composed of tiny crowded lobes. Plants have a pungent, witch-hazel-like odor. Kit-kit-dizze and Bear Clover are other common names. Best seen along Wawona Road where it forms solid carpets under pines.

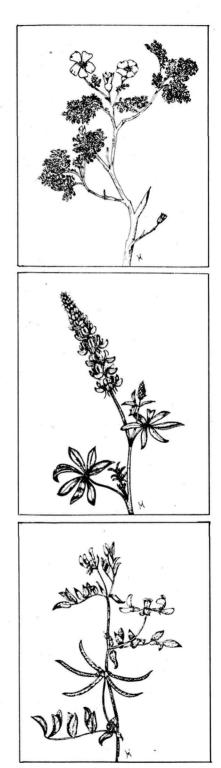
PEA FAMILY

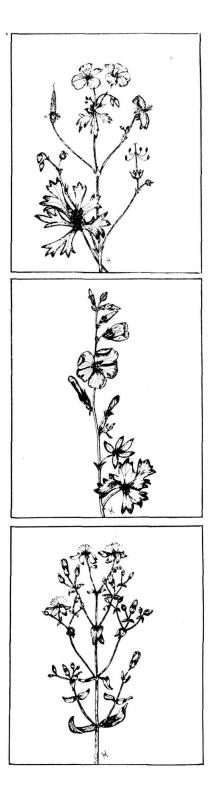
MEADOW LUPINE Lupinus confertus Kell.

Flowers blue or pinkish, about $\frac{1}{2}$ inch long, crowded and whorled around upper part of stem. Stems 6 to 15 inches tall. Leaves gray, consisting of 5 to 8 leaflets. Common in dry meadows throughout the Yosemite region. There are over a dozen other species of hupines in the Park.

MEADOW HOSACKIA Lotus oblongifolius Greene

Flowers yellow with some white parts, ½ inch long. Steme l to 2 feet high, weak and slender but erect. Pods flat. Leaflets 5 to 11 in pairs. Common in moist, grassy places below 7000 feet. Best seen on borders of meadows in Yosemite Valley.





GERANIUM FAMILY

WILD GERANIUM Geranium incisum Nutt.

Flowers pink to white; petals with deep red veins. Stems erect, l to 2 feet high. Leaves 2 to 4 inches wide, roundish and divided into 5 or 7 lobed segments. Grows throughout the Yellow Pine belt in Yosemite.

MALLOW FAMILY

WILD HOLLYHOCK Sidalcea malvaeflora Gray

Flowers rose-pink to purple, ½ to 1½ inches long. Stems 1 to 3 feet high, rough with short hairs. Leaves variable, the lower ones bluntly lobed and the upper ones divided and toothed. Generally associated with Wild Geranium in Yellow Pine forests.

ST. JOHNS-WORT FAMILY

ST. JOHNS-WORT Hypericum formosum H.B.K.

Flowers yellow, petals $\frac{1}{2}$ inch long, in loose terminal clusters. Stems erect, $\frac{1}{2}$ to 3 feet high. Leaves $\frac{1}{2}$ to 1 inch long, the margins black-dotted. Forms showy masses in meadows and along streams at middle altitudes throughout Park.

VIOLET FAMILY

WESTERN DOG VIOLET Viola adunca Sm.

Flowers blue-violet, petals $\frac{1}{2}$ inch long, spurs nearly as long. Stems leafy and up to 4 inches long. Leaves round-oval, $\frac{1}{2}$ to 2 inches long. Found in meadows up to 9500 feet. Best seen moist meadows in Yosemite Valley.

EVENING PRIMROSE FAMILY CALIFORNIA FUCHSIA Zauschneria latifolia Greene.

Flowers scarlet, 1 to $1\frac{1}{2}$ inches long, tubular, stamens projecting. Stems $\frac{1}{2}$ to $2\frac{1}{2}$ feet high. Leaves gray and hairy, $\frac{1}{2}$ to $1\frac{1}{4}$ inches long. Much favored by hummingbirds. Grows on rocky slopes up to 6500 feet. Blooms in late summer.

FIRE-WEED Epilobium angustifolium L.

Flowers lilac-purple, large and numerous. Stems erect, 2 to 6 feet high. Leaves 3 to 6 inches long, nearly entire, narrow. Widely distributed in meadows and along stream banks.

Especially luxuriant and showy in burned-over areas, hence the common name "Fire-weed."





EVENING PRIMROSE FAMILY

CLARKIA Clarkia rhomboidea Dougl.

Flowers rose-purple, petals $\frac{1}{4}$ to $\frac{1}{2}$ inch long. Stems erect, 1 to 3 feet high. Leaves $\frac{1}{2}$ to $\frac{1}{2}$ inches, long, $\frac{1}{4}$ to $\frac{3}{4}$ inches wide. Nowhere abundant but widely distributed throughout the lower part of the Yellow Pine belt.

FAREWELL TO SPRING Godetia viminea Spach.

Flowers purplish or crimson, with a large purple splotch in center of petals, the base yellowish; petals $\frac{1}{2}$ to $\frac{3}{4}$ inches long. Stems erect, from a few inches to 2 feet high. Leaves $\frac{1}{2}$ to $\frac{1}{2}$ inches long, narrow. Common in Yosemite Valley during summer.

EVENING PRIMROSE Oenothera hookeri T. & G.

Flowers yellow and large; petals 1 to 2 inches long. Stems stout, erect, 3 to 6 feet high. Leaves 4 to 10 inches long Once common in Yosemite Val ley but eagerly sought by deer Best seen in Museum Wildflower Garden in early evening when it rapidly bursts into full bloom from the bud. Evening Primrose Walks are scheduled several times weekly during July and August.

EVENING PRIMROSE FAMILY

$\label{eq:GAYOPHYTUM} \textbf{Gayophytum diffusum } T. \& G.$

Flowers small, white, turning pink with age, loosely disposed along branches. Stems are widely branched, $\frac{1}{2}$ to 2 feet high. Leaves up to 2 inches long and very narrow. Common in dry open places up to Hudsonian Zone. Blooms in late summer.

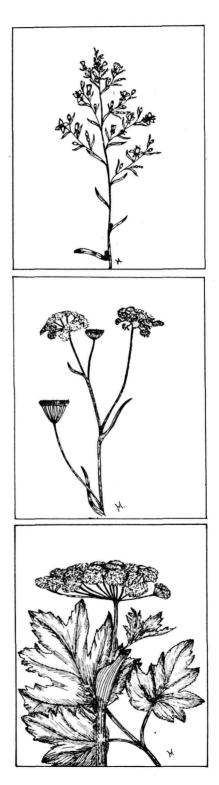
PARSLEY FAMILY

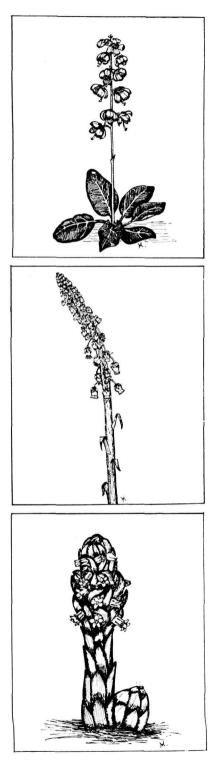
QUEEN ANNE'S LACE Eulophus bolanderi C. & R.

Flowers small, white, numerous, in flat heads or umbels which have a distinctly lacy appearance. Stems nearly naked, 1 to 2 feet high. Leaves 3 to 6 inches long. Best seen in meadows along Glacier Point Road in July.

COW PARSNIP Heracleum lanatum Michx.

Flowers white, small, innumerable, forming umbrella-like heads 6 to 10 inches wide. Stems course and heavy, 4 to 6 feet high. Leaflets in threes, deeply lobed and toothed, 3 to 12 inches across. Common in moist places at middle altitudes as in Yosemite Valley.





HEATH FAMILY

WHITE-VEINED SHIN-LEAF Pirola picta Sm.

Flowers greenish-white, nodding. Stems 6 to 15 inches high, without leaves. Leaves basal, shiny green with white veins, 1 to 2½ inches long. Picta means painted or ornamented. Found in shady pine forests in Yosemite Valley and at higher elevations.

PINE DROPS Pterospora andromeda Nutt.

Flowers white, bell-shaped, nodding, small. Stems erect, fleshy but rather slender, very sticky, l to 4 feet high. Leaves reduced to reddish - brown scales. Grows in rich humus of forest floor. Best seen in Yosemite Valley along the Lost Arrow Trail.

SNOW PLANT Sarcodes sanguinea Torr.

Flowers red, fleshy, bell-shaped, 1/2 to 3/4 inches long. closely crowded around main stem. Stems erect, stout and fleshy, 9 to 18 inches high, 1 inch or more thick. Bears reddish scales instead of leaves. This beautiful and unusual saprophytic plant blooms early, generally along the edge of a melting snow bank. Best seen in the Mariposa Grove of Big Trees in June and July.

HEATH FAMILY

RED HEATHER Phyllodoce breweri Heller

Flowers rose-purple, cup-shaped, in terminal clusters. Stems erect, leafy, 6 to 12 inches high. Leaves very narrow, short, thickly crowded around stems. Grows only at higher elevations where they form extensive, showy stands. Also known as Bryanthus.

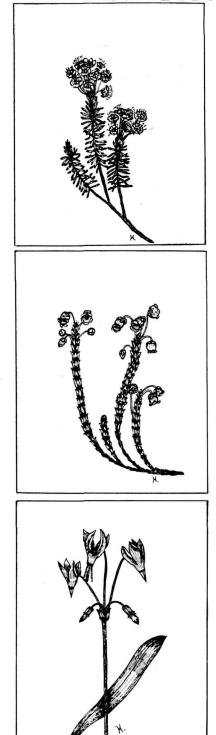
WHITE HEATHER Cassiope mertensiana Don.

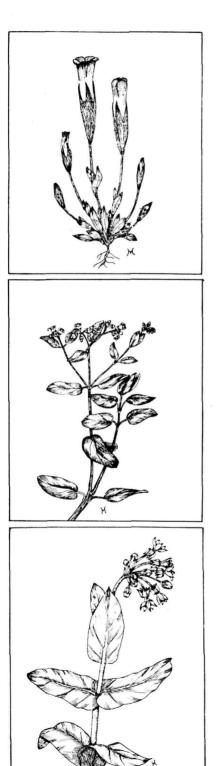
Flowers pure white, bell-shaped, nodding, with tiny red caps. Stems rigid, 1 foot or less high, densely leafy. Leaves very short, closely overlapped in 4 rows. Found along rocky ridges and under ledges near timber-line. Occasionally found as low as Tuolumne Meadows.

PRIMROSE FAMILY

SIERRA SHOOTING STARS Dodecatheon jeffreyi Moore

Flowers ³/₄ to 1 inch long, rosepink, base yellowish with distinct purple band. Stems naked, 5 to 18 inches high, bearing a cluster of 5 to 15 nodding flowers. Leaves 2 to 15 inches long from base. This and other related species are found commonly throughout the Yosemite region in wet meadows.





GENTIAN FAMILY

GENTIAN Gentiana holopetala Holm.

Flowers blue, tubular, 1 to 2 inches long. Stems 3 to 15 inches high, each bearing a single, erect terminal flower. Leaves short and narrow. Found in meadows ranging from 5000 to 10,000 feet elevation. Another species fairly common at lower altitudes has fringed-edges to the petals.

DOGBANE FAMILY

INDIAN HEMP Apocynum cannabinum L.

Flowers small, greenish-white to pinkish-white, in short terminal clusters. Stems erect, 2 to 4 feet high. Leaves pale green, 1 to 3 inches long. The Yosemite Indians had many uses for the strong stem fibers. Best seen near Bridalveil Fall.

MILKWEED FAMILY

SHOWY MILKWEED Asclepias speciosa Torr.

Flowers pink to reddish-purple, quite showy in full bloom. Stems stout, 2 to 5 feet high. Leaves gray, woolly, oblong, 3 to 8 inches long, opposite on stems. The stems of milkweed also furnished a strong fiber much used by the Indians. Best seen in Yosemite Valley.

GILIA FAMILY

DOUGLAS PHLOX Phlox douglasii Hook.

Flowers vary from nearly white to pink or bluish-purple, terminal on short branchlets. Stems very leafy, forming stiff mats 3 to 4 inches high. Leaves densely crowded, nearly awlshaped, sharply pointed, very short. Grows on gravelly slopes and summits above 5000 feet.

SCARLET GILIA Gilia aggregata Spreng.

Flowers scarlet or reddish, 1 to 1½ inches long, stamens protruding from tube. Stems erect, 1 to 2½ inches high. Leaves divided into long narrow sections. This, the most showy of our many gilias, may be found growing in loose, gravelly soil at intermediate elevations.

GLOBE GILIA Gilia capitata Dougl.

Flowers pale blue to white, numerous in dense terminal heads. Stems ¾ to 2 feet high, branched above. Leaves divided into narrow, deeply notched lobes, 1 to 4 inches long. Best seen in Yosemite Valley and at Wawong.





PHACELIA FAMILY

BABY BLUE-EYES Nemophila menziesii H.&A.

Flowers $\frac{1}{2}$ to 1 inch wide, light to deep blue, or whitish, often veined with purple and dotted toward center. Stems branching, 4 to 12 inches high. Leaves $\frac{1}{2}$ to 3 inches long, deeply lobed, the upper leaves less divided. Common foothill species reaching Yosemite Valley and Wawona.

DRAPERIA Draperia systyla Torr.

Flowers pale lavender, tubular, about ½ inch long. Stems up to 1½ feet high. Leaves opposite, entire, 1 to 2 inches long, silk-hairy. Grows throughout the Yellow Pine belt. Best seen along trails to rim of Valley.

CATERPILLAR PLANT Phacelia heterophylla Pursh.

Flowers whitish or pale blue, crowded in coiled terminal clusters resembling caterpillars; stamens hairy and protruding. Stems ½ to 2 feet high, erect. Leaves grayish, mostly basal, 1 to 6 inches long. Variations of this plant may be found from the foothills to regions above timber-line.

BORAGE FAMILY

SIERRA FORGET-ME-NOT Lappula velutina Piper.

Flowers blue, sometimes pink, about $\frac{1}{2}$ inch wide. Stems erect, 1 to 2 feet high. Leaves 1 to 3 inches long, smooth and velvety. Grows between 5000 and 8500 foot elevation. Best seen near Glacier Point.

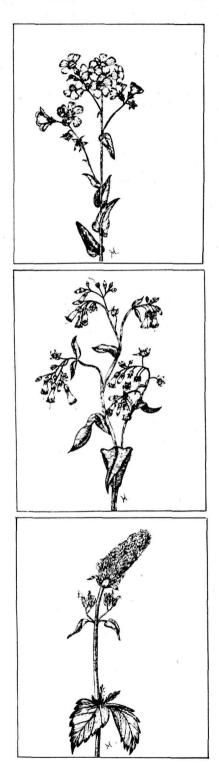
MOUNTAIN BLUEBELL Mertensia ciliata Don.

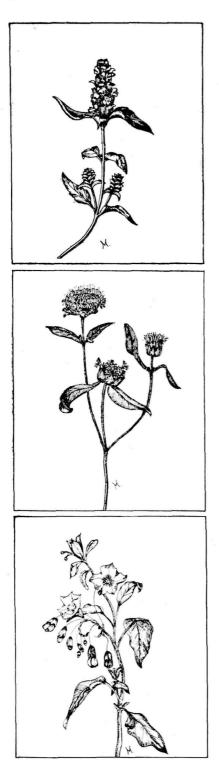
Flowers light blue, tubular, with distinct white crests in the openings. Stems erect, 1 to 5 feet high, leafy. Leaves 2½ to 6 inches long, ¾ to 1½ inches wide. The handsome blue flowers, which are usually nodding, are pink in the bud, forming a lovely mass contrast. Grows at Glacier Point and higher.

MINT FAMILY

GIANT HYSSOP Agastache urticifolia Ktze.

Flowers lavender and white, numerous, in crowded terminal spikes 2 to 6 inches long. Stems 3 to 5 feet high. Leaves 1 to 3 inches long, toothed. All mints have square stems and opposite leaves. Grows throughout Park at moderate altitudes. Common at Wawona and in Yosemite Valley.





MINT FAMILY

SELF-HEAL Brunella vulgaris L.

Flowers pinkish to purple, in dense terminal clusters. Stems square, 4 to 12 inches high. Leaves opposite, 1 to 3 inches lang. Found in mountain meadows up to 6000 feet. Naturalized from Europe where it was used as a curative herb.

WESTERN PENNYROYAL Monardella lanceolata Gray.

Flowers reddish-violet, in compact heads 1 inch wide. Stems erect, ½ to 2 feet high, square. Leaves few, opposite, 1 to 2½ inches long. This showy fragrant mint is common at lower elevations being replaced higher by Mt. Pennyroyal.

NIGHTSHADE FAMILY

NIGHTSHADE Solanum xantii Gray.

Flowers azure-blue, saucershaped, ½ to ¾ inches across. Stems several, shrub-like, spreading, l to 3 feet high. Leaves ½ to 1½ inches long, entire. Berries light green, cherry size, considered poisonous. Easily recognized by the yellow anthers standing together in the center of the blue flowers. Grows up to 6500 foot elevation.

COMMON MULLEIN Verbascum thapsus L.

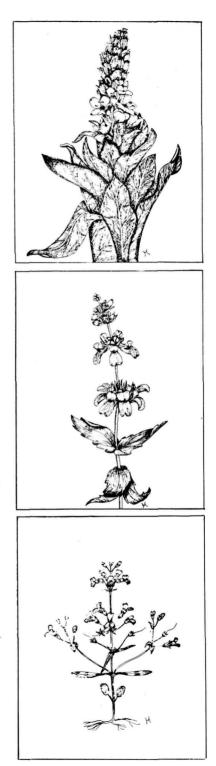
Flowers yellow, crowded in a long, dense spike 1 to 3 feet long, 1¼ inches thick. Stems stout, densely woolly, 3 to 6 feet high. Leaves 6 to 12 inches long, oblong-shaped, opposite. An introduced European weed now common in Yosemite Valley and at Wawona.

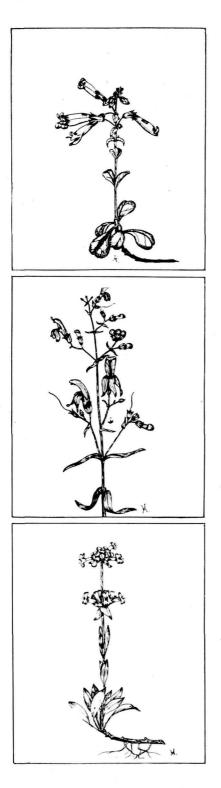
INNOCENCE

Collinsia tinctoria Hartwg. Flowers white to yellowish, purple marked in throat; in successive whorls around stem. Stems erect, $\frac{1}{2}$ to 2 feet high. Leaves opposite, $\frac{1}{2}$ to $\frac{2}{2}$ inches long, coursely toothed. Tinctoria refers to the brownish stain imparted by handling the herbage. Found in warm areas of Wawona and Yosemite Valley.

LITTLE COLLINSIA Collinsia torreyi Gray

Flowers deep blue or violet, small, 3 to 6 in whorls around main stem. Stems erect, branching, 6 inches or less high. Leaves narrow, seldom over 2 inches long. This small dainty plant is common in the pine belt up to 6000 feet.





PRIDE OF THE MOUNTAINS Pentstemon newberryi Gray.

Flowers bright red, tubular, 1 to 1½ inches long. Stems numerous, 1 foot or less high. Leaves ½ to 1 inch long, upper ones smaller. This, and a similar high mountain species may be found throughout the Park. Best seen on rocky ledges around Yosemite Valley.

YAWNING PENTSTEMON Pentstemon breviflorus Lindl.

Flowers white to flesh-colored with pinkish markings, upper lip arched, lower lip curved downward, giving flower appearance of yawning. Stems 3 to 6 feet high, much branched. Leaves opposite, 1 inch or more long. Pent-stemon means five stamens. Dry hot hillsides up to 6500 feet.

WHORLED PENTSTEMON Pentstemon confertus Dougl.

Flowers blue, tubular, ½ inch or less long, in successive whorls. Stems erect, 3 inches to 2 feet high. Leaves 1 to 4 inches long. Plants variable in size and appearance according to elevation. Occurs in meadows throughout Park.

LITTLE RED MIMULUS Mimulus torreyi Gray.

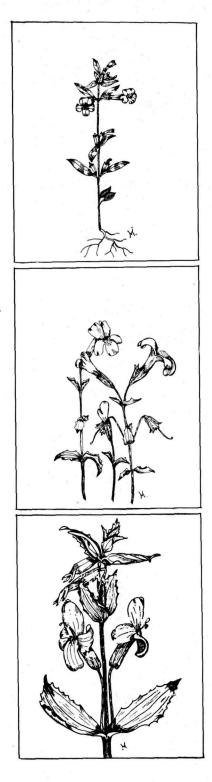
Flowers pink-purple, $\frac{1}{2}$ to $\frac{3}{4}$ inches long. Stems from a few inches to 1 foot high, branching. Leaves entire, $\frac{1}{2}$ to 1 inch long. This dainty little mimulus forms red carpets in dry, open places. Several other species of little mimulus are to be found in the area.

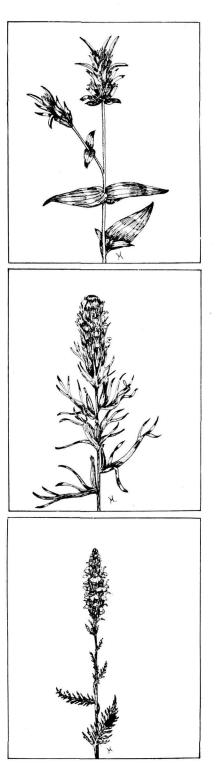
COMMON MONKEY FLOWER Mimulus guttatus DC.

Flowers bright yellow, with brownish spots in throat, 1 inch or more long. Stems erect, leafy, 1 to 2 feet high. Leaves sharply toothed, 3/4 to 11/2 inches long. This species together with other varieties may be found at all elevations in the Sierra.

SCARLET MIMULUS Mimulus cardinalis Dougl.

Flowers scarlet, 1½ to 2 inches long, decidedly two-lipped, stamens protruding. Stems stout, many branched, up to 4 feet high. Leaves coursely toothed, 2 to 4 inches long. In swamps or near running water at middle elevations. Best seen in Yosemite Valley and at Wawona. M. lewisii, a pink flowered species grows at higher elevations.





INDIAN PAINT BRUSH Castilleia miniata Dougl.

Flowers red, 1 to 1½ inches long, clustered in dense terminal spikes. Stems erect, 2 to 4 feet high. Leaves entire, 1 to 3 inches long. Common in moist meadows from 3000 to 10,000 ft. Closely related to Owl's Clover from which it is at times difficult to distinguish.

OWL'S CLOVER Orthocarpus purpurascens Benth.

Flowers crimson to purplish, 1 to 1¼ inches long. Stems erect, 6 to 12 inches high. Leaves parted into many narrow segments. Abundant in foothills and lower elevations of Park. Best seen at Wawona. Similar species common at higher elevations.

ELEPHANT HEADS Pedicularis groenlandica Retz.

Flowers pink to red, in dense spikes 2 to 6 inches long. The upturned beaks resemble elephant trunks. Stems ½ to 1½ feet high. Leaves finely divided and feather-like, larger and more numerous at base of stems. They may be found growing in wet places at high elevations such as Tuolumne Meadows.

101 WILDFLOWERS OF YOSEMITE

MADDER FAMILY

SWEET-SCENTED BEDSTRAW Galium triflorum Michx.

Flowers tiny, greenish-white on three-forked flower-stalks. Stems branching, rough, slender, 1 to 2 feet high. Leaves ³/₄ to 1¹/₂ inches long, mostly six to each circle. The flowers are followed by tiny, prickly balls. They grow in damp. shady places in Yosemite Valley.

SUNFLOWER FAMILY

GOLDENWEED

Aplopappus bloomeri Gray

Flower-heads yellow, small, numerous. Stems 1 to 3 feet high, shrub-like. Leaves very narrow, ³/₄ to 2 inches long, green and somewhat sticky or sometimes white-wooly. A low shrub which grows in sandy soil from 6000 to 9500 feet in occasional clumps. Best seen on Glacier Point and Tioga Roads in midsummer.

GOLDENROD Solidago elongata Nutt.

Flowers yellow, tiny, in small compact heads forming a pyramidal mass 3 to 7 inches long. Stems 1 to 4 feet high, leafy to the top. Leaves 2 to 4 inches long, sharply notched except at base. Common in meadows at middle elevations such as Yosemite Valley.





LESSINGIA Lessingia leptoclada Gray.

Flower-heads lilac, on slender stalks branching from erect stems ½ to 2 feet high. Leaves woolly, 1½ inches or less in length. Abundant up to 5000 feet. Best seen in Yosemite Valley in late summer.

YOSEMITE ASTER Aster adscendens Lindl.

Disk-flowers yellow, ray-flowers violet, heads 1/2 to 3/4 inches wide. Stems slender, leafy, 1 to 2 feet high. Leaves entire, 2 to 4 inches long. One of the most showy asters found in Yosemite. Best seen in Yosemite Valley but similar appearing asters grow at higher elevations.

DAISY FLEABANE Erigeron ramosus B.S.P.

Flower-heads small, numerous, with many white rays. Heads $\frac{3}{4}$ to 1 inch across. Stems erect, $1\frac{1}{2}$ to 4 feet high, branching above. Leaves 2 to 4 inches long, rough-hairy. Common in Yosemite Valley. Plant naturalized from Eastern United States.

BLACK-EYED SUSAN Rudbeckia hirta L.

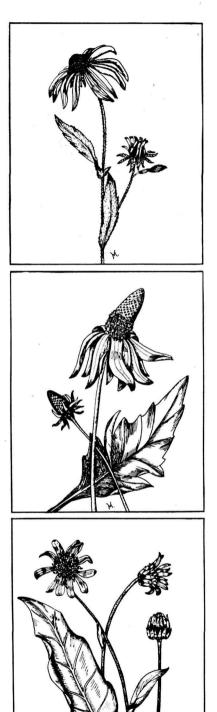
Disks brownish, broadly conical but not over ¾ inch high. Rays orange - yellow. Stems erect, leafy, 1½ to 4 feet high, often ending in several flowerheads. Leaves nearly entire, 2 to 4 inches long. Herbage rough-hairy. Introduced from the Mississippi region, now becoming common in Yosemite Valley, blooming in July and August.

CONE FLOWER Rudbeckia californica Gray.

Heads large, the brown or purplish disk-flowers form a cone 1 to 2 inches high, the long rayflowers yellow. Stems erect, leafy, 2 to 4 feet high terminating in single flowers. Leaves 4 to 12 inches long, 1 to 5 inches wide, rough-hairy. Grows between 5000 and 7000 feet elevation. Best seen at Crane Flat.

NARROW MULE-EARS Wyethia angustifolia Nutt.

Rays about 1 inch long, yellow. Disks yellow, slightly smaller, stiff and hairy. Stems 1 to 2 feet high, rough-hairy. Leaves 4 to 12 inches long, ½ to 2 inches wide. Common in the Yellow Pine belt.





TARWEED Madia elegans Don.

Heads about 1½ inches across, disks yellow, the 12 to 15 rays about ½ inch long, yellow with red spot at base. Stems 6 to 18 inches high, white - hairy. Leaves narrow, 1 to 4 inches long. Abundant in foothills, reaching to middle elevations such as near Wawona.

SNEEZEWEED Helenium bigelovii Gray.

Rays yellow, drooping, about ³/₄ inch long. Disks yellow, ³/₄ to l inch across. Stems branching, 2 to 4 feet high. Leaves green, 4 to 10 inches long, about ¹/₂ inch wide. Common in meadows and along streams at moderate altitudes.

WHITE YARROW or MILFOIL Achillaea millefolium L.

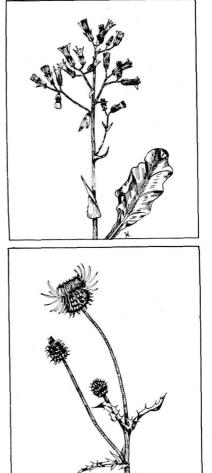
Heads ¼ inch high in flat-topped terminal clusters, with 4 to 6 white rays, disks yellow. Stems erect, leafy, 1 to 3 feet high. Leaves finely cut into many (mil-foil) feathery leaflets. Abundant at most elevations.

SENECIO Senecio lugens Rich.

Flowers yellow in clustered terminal heads, with or without rays. Stems stout, 1 to 3 feet high. Leaves mainly basal, scattered, 2 to 8 inches long. This is the most common species of the many senecios found throughout the Yosemite region.

SIERRA THISTLE Cirsium californicum Gray.

Heads large, 1½ to 2 inches high, cream-colored or purplish, outer bracts prickly. Stems 2 to 5 feet high, whitewoolly. Leaves narrow, 1 to 8 inches long, white - woolly, deeply notched, prickly. Common on warm slopes up to 6000 feet as on Wawona Road.



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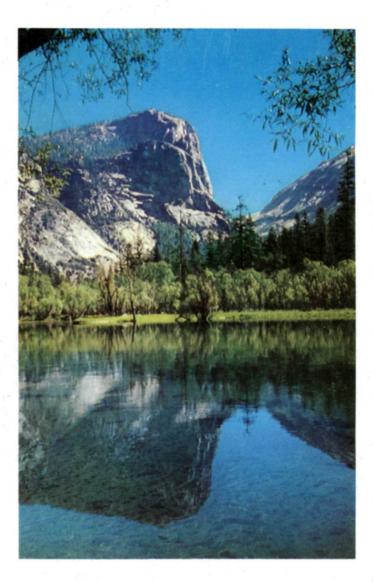
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