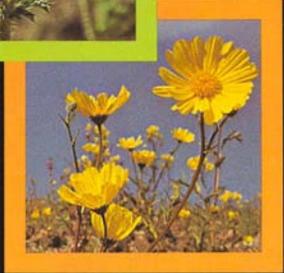


Herbarium
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Flowering Plants of the Lake Mead Region



INTRODUCTION

The desert has often been described as harsh, unyielding, barren, desolate, and dangerous. One man called it "the most God-forsaken, barren, burned out bit of country I ever saw!"

At first acquaintance, the desert seems to merit all or any of these terms. It is hot during summer months, with temperatures sometimes ranging up to 49°C (120° Fahrenheit) or more in the low valleys. To conceive of much life existing in the stifling heat would seem to require a stretch of the imagination. It does appear to be almost devoid of plants; certainly those of tree size, anyway. As for that all-important life sustaining substance—water—the dry washes, slopes, and canyon bottoms always seems to have a parched look. Such an appearance is natural as only about three percent of all rain that falls on the desert penetrates the soil to any appreciable depth. This is true, also, of the frequent cloudbursts that hit the desert during July and August. Torrents of water fall, flood the washes in a few moments, and as quickly run off, leaving little to benefit plants of the area.

It is when one gets better acquainted with the desert that its true characteristics are revealed. It is harsh—but also fragile and easily destroyed. Plants and animals living here are often literally on the thin edge of existence. With annual rainfall of some 10 cm (4 inches) or less, an inch of moisture can easily mean the difference between life or death for several species. The loss of a couple of inches of rainfall during the year can be a disaster if prolonged into following years. Barren and desolate it surely appears, but it contains many plants and has the potential for many more. Animal life is widespread, involving numerous species of mammals, birds, reptiles, and even some amphibians. Invertebrates, such as insects, spiders, scorpions, etc. are common. Thus an appearance of barrenness and desolation is truly deceptive.

Given the right conditions of moisture, temperature, and soil, the desert can and does become a vast flower garden on a scale difficult to imagine. However, such a condition does not happen every year. In fact, there usually are several years after one "flower show" before another comes along.

Every living thing in the desert has three basic problems to solve if it is to survive. These are scarcity of water, high temperatures, and availability of food. In the plant world, these problems are met in a variety of ways and with amazing success.

Plant Groups

Plants divide very naturally into three well defined groups, depending upon how they meet the problem of drought survival.

THE DROUGHT ESCAPERS These are the annuals, the most abundant and showy of desert plants, with some of the tiniest and most exquisite flowers. They have no water problem, for if there is a problem, they do not germinate. Seed germination is not a haphazard affair. Unless certain well defined conditions are met, seeds lie dormant on the ground, usually thinly covered with the fine dust or blow sand brought in by strong winds that are so prevalent. The seeds of most of these annuals contain a substance which acts as an "inhibitor" to germination. To dissolve away this protective material, approximately an inch of water must fall during colder months of autumn, winter, and spring seasons. At the same time desert winds must not be too drying and the mean temperature must remain around 18°C (65°F) or lower. The seeds will then germinate. The reverse is true for annuals that bloom in the heat of summer. Summer rains will dissolve away the germination inhibitor if the mean temperature stays around 27°C (80°F) or above. Thus, no matter how much rain falls in winter, seeds of the summer annuals will not germinate; the reverse is true with the winter annuals when heavy rains fall in the summer. In both instances, however, the life of the annual is brief. With an extremely short growing period available, each plant must quickly achieve its one objective—accomplish flower pollination and produce seeds for a new generation. Thus, much of its energy is devoted to production of the all important flower.

Some flowers are designed to enhance the possibility of visits by insects and other pollinators, and this may increase the rate and quantity of seed production. Because some insects, such as the bee, can see yellow, green, blue, etc., but not red, most annuals have one or more of those colors in their petals, thus increasing the chances that they will not be overlooked. Even the red-petaled flowers, such as monkey-flower and penstemon, have yellow in their

stamens. White-petaled annuals, also abundant, carry the important colors for pollination within the flower parts. Night blooming plants depend primarily upon odor to bring pollinators to the flowers. Moths do most of this work. They do not react to color, but do have a keen sense of smell.

Once seed production is assured, the plant soon withers and dies. Seeds fall to the ground, there to be moved about by wind and rain until they finally come to rest, ready for germination at some future time. Such a time may be years in coming, but sooner or later they will have their short few weeks of colorful beauty.

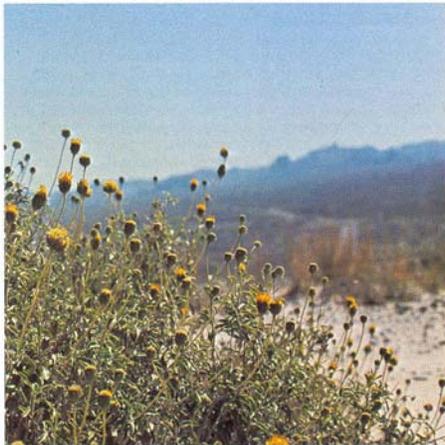
THE DROUGHT EVADERS These are perennial plants living for many years, that meet the twin problems of water scarcity and high summer heat by reducing all but essential life processes. They flower in spring along with the annuals, but when summer temperatures arrive, they may shed their leaves and enter a state of dormancy until suitable growth conditions are once more present. The mariposa lily and the ocotillo are examples.

THE DROUGHT RESISTERS This group includes a wide range of shrubs and other woody or fibrous plants. These take the worst conditions the desert offers and manage to survive. Some, like members of the cactus family, store water in their stems or root tissues. Others, such as mesquite and catclaw, depend upon widespread root systems designed to utilize every available bit of moisture in the soil. Still others, like the desert senna, rely upon reduced leaf surfaces. Some have fine, gray, downy coatings on leaves and stems which reflect the sun's heat away from the plant. Brittle-bush and desert holly are representative of this group. The creosote-bush coats its leaves with a waxy material that reduces moisture loss. All of these plants manage to live from one growing season to the next, adding growth as opportunities arise.

1

Plant Communities

Plants, like people, have definite preferences as to where they live. Some prefer open desert. Others like the rocky slopes and cliffs, the dry stream beds or where permanent water is found. Some even live on soils containing minerals that are toxic to many other species. Plants of the Lake Mead region can be grouped into five rather well defined communities:



2

THE JOSHUA FOREST COMMUNITY The Joshua-tree is found from around 1,066-1,524 m (3,500-5,000 feet) in elevation, and several other species are associated with it. At this elevation rainfall is more plentiful and summer temperatures are not as high. It normally receives light snows in winter.

THE CREOSOTE-BUSH COMMUNITY The most conspicuous plant of the region is the creosote-bush, ranging into high and low desert elevations between 152-914 m (500-3,000 feet). It is abundant in the middle desert zone around 609-762 m (2,000-2,500 feet). Rainfall is low, only about 7-10 cm (3-4 inches) a year. Temperatures range from -12° to 46°C (10°-115°F) annually. Other common plant species associated with this Community include burro-bush, cholla, senna, and indigo-bush, to mention only a few.

THE DESERT WASH COMMUNITY This Community occurs from elevations of about 152 m (500 feet) to as high as 914 m (3,000 feet). Water concentrates here during rainstorms and because more underground water is available, plants grow in greater abundance than in the surrounding area. The washes are subject to flash flooding and are preferred by most of the spring flowering annuals. Such a Community is common and is characterized by cheese-weed, chuckwalla's delight, desert-mallow, and catclaw.

THE CLIFF COMMUNITY Narrow, steep-walled canyons often form the upper ends of desert washes. In such places we find the Cliff Community. Plants prefer the rocky slopes and cliffs, often growing out of cracks in the rock walls. Representative species include desert-fir, rock daisy, barrel cactus, and rock-nettle.

THE DESERT SPRING COMMUNITY Plants of this Community grow around springs, along river courses and in low washes where water is found at or near the surface. They include cattails, rushes, arrow-weed, desert-willow, mesquite, and saltcedar (tamarisk).

How to Use This Book

This book considers only plants most commonly seen in the Mohave Desert, northern reaches of the Lower Sonoran Desert, and, in particular, those found in the Lake Mead-Lake Mohave region. Many less common and less conspicuous plants are not included. To make easier the identification of each, the book is divided into sections according to flower color. The scientific name of the plant, as well as that of the family to which it belongs, is given in the descriptive text.

Throughout the text, references will often be made to elevations where the plant in question is found. Three such elevational zones are given:

Lower Elevations—areas from 157-427 m (500-1,500 feet)
Middle Elevations—areas from 457-914 m (1,500-3,000 feet)
Higher Elevations—areas from 914-1 371 m (3,000-4,500 feet)

While there are mountains within the Lake Mead region that rise above 1 371 m (4,500 feet), no attempt is made here to include plants found at such elevations.

Most of these plants, or closely related species difficult to differentiate, are found in Death Valley and Joshua Tree National Monuments, and in the nearby Nevada State Parks of Valley of Fire and Red Rock Canyon. Those found which occur in Death Valley National Monument are indicated by an (*) placed by the common name; those found in Joshua Tree National Monument are indicated by a (+).

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plants whose
flowers are
mainly

RED

OR SHADES OF RED

PINK

OR SHADES OF PINK





FLAT-TOPPED BUCKWHEAT

This buckwheat, in contrast to many other members of this family is a low evergreen shrub. The leaves are small and numerous, often with the edges rolled under. Clusters of pink to white flowers can be found atop leafless stalks during the late spring months, and may also be commonly seen in early fall if sufficient rains have fallen. These stalks will turn deep red with decreasing temperatures of autumn. They are most common in washes and canyons of the mountains through the region.

Flat-Topped Buckwheat •+

Eriogonum fasciculatum
BUCKWHEAT FAMILY

Known over much of the desert country as "dock," this is an easily recognized reddish-colored perennial. The plant has large leaves, wavy margined, and the stems are thick and possess an acid sap. It grows in the dry washes and is often seen in disturbed soil along road shoulders in the southern part of the Lake Mead region. The petioles are good substitutes for rhubarb in pies. Indians used the leaves for greens and roasted and ate the petioles. It also furnishes food for various desert animal species.

Wild Rhubarb •+

(Dock)
Rumex hymenosepalus
BUCKWHEAT FAMILY



SAND-VERBENA

This is one of the most spectacular and fragrant desert wildflowers. Blossoms are in clusters and produce a delicate fragrance, especially noticeable in evening and early morning. As the flowers age, they quickly lose their initial radiance and fade. Some can still be seen blooming as late as June. With sufficient rain in early fall a short flowering season may develop. The stems are often as much as 61 cm (2 feet) in length, mostly prostrate. The entire plant is covered with small sticky glands, resulting in an outer covering of sand. It grows profusely in dune areas or where patches of blowing sand have accumulated.

Sand-Verbena •+

Abronia villosa
FOUR-O'CLOCK FAMILY

WILD RHUBARB

5

Windmills •+

Allionia incarnata
FOUR-O'CLOCK FAMILY

These are small, prostrate plants that spread out over the ground. Flowers are usually magenta, but may range from rose to white. There are actually three flowers in each flowerhead, which because of their arrangement, appear to be only a single blossom. Stems are sticky and hairy, often covered with fine sand particles. These are perennial plants, dying back during winter months, but producing new stems and leaves each spring. They bloom from late spring to early fall, growing on rolling hills and open flats throughout the region.

Arizona Lupine •+

Lupinus arizonicus
PEA FAMILY

This leafy-stemmed annual may grow to a height of 61 cm (2 feet), but usually much less. The leaves are compound, composed of 5 to 10 leaflets and grow along the entire stem. Their arrangement is termed palmate because the leaflets arise from a common point. Seed pods are hairy, about 2.5 cm (1 inch) in length and contain 5 to 7 seeds. The seeds are an important food source for small animals, such as mice and birds. The plants prefer dry washes and gravel slopes, and are often found growing along road shoulders. They bloom from March to May.

The Royal Desert Lupine (*Lupinus sparsiflorus*), a close relative, often grows in the same area. It differs only in having blue flowers and narrow leaflets.



ARIZONA LUPINE

Filaree •+

Erodium cicutarium
GERANIUM FAMILY

Introduced from Mediterranean countries, filaree is a common annual throughout the United States. The delicate and spreading stems produce numerous finely dissected leaves. Small purple flowers appear in February and persist through May. The fruit is composed of a long sterile projection with the five seeds produced at its base. Attached to each seed is a hair-like projection which is humidity sensitive. Changes in humidity cause this projection to coil and uncoil, allowing the seed to penetrate the soil surface. Populations of Gambel's quail are dependent on the seeds as a food source. These plants are common along roadsides and open areas throughout the recreation area.



FILAREE



DESERT FIVE-SPOT

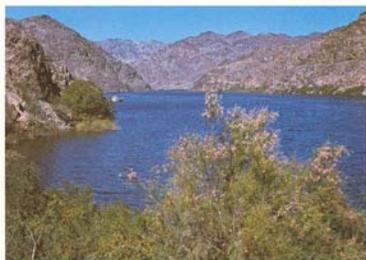
6



OCOTILLO



WINDMILLS



SALTCEDAR

During the late 1890s saltcedar was introduced into North America. It has spread rapidly through desert regions to become a serious problem. It thrives in a hot, humid climate and is partial to saline soils. Wherever there is water, this graceful plant forms thickets which can drain small streams or springs, thus excluding native plants and animals from the scarce water supply. In spring and early summer, pink to white blossoms form drooping colorful plumes along the shores of Black Canyon and at the mouths of washes leading into Lake Mead and Lake Mohave. The flowers attract many insects, especially honey bees and the tarantula hawk, a large, orange-winged wasp. While of little food value to other wildlife forms, it does furnish protection for birds and small animals.

Saltcedar •+
(Tamarisk)

Tamarix pentandra

TAMARIX FAMILY

One of the most beautiful desert annuals, the flower is round in outline and barely opens enough to show the five carmine spots on the inner bases of the petals. The plant is short, usually less than 45 cm (18 inches) high, with rounded leaves. If a hand lens is used, greenish star-shaped hairs can be seen covering the stem and leaves. Frequently seen in the washes, it is a stunning contrast to the somber, lava landscape which it seems to prefer. It blooms from March to May.

Desert Five-spot •+
(Lantern Flower)

Eremalche rotundifolia

MALLOW FAMILY

This, one of the oddest of desert plants, is exceptionally well adapted to withstand harsh climate. Its long, spiny stems extend skyward as much as 6 m (20 feet) and are often completely leafless. The root system lies immediately beneath the surface, to insure maximum benefit from any moisture that falls. Small green leaves, five in a bundle, quickly cover the stems a few days after a good rain. Flowers soon tip the branches to make a striking show. It loses its leaves very quickly to conserve water as soon as soil moisture becomes scarce, but will grow new ones when more rain falls. This may occur more than once during the year. It prefers rocky slopes, and large stands may be seen in the lower Lake Mohave and Pearce Ferry areas. Ocotillo stems are often planted in rows, where they soon take root to form a spiny, living fence.

Ocotillo •+

Fouquieria splendens

OCOTILLO FAMILY

Beavertail •+

Opuntia basilaris

CACTUS FAMILY

This is one of the commonest members of the cactus family in the recreation area. Its green, flat pads are covered with clumps of tiny hair-like spines. Handling this cactus can be a most discomforting experience, as the tiny spines work into the skin and are difficult to find and remove. It blooms during spring months and adds a bright spot of color to the desert landscape. Flowers soon develop into cactus apples. Fruits and green pads provide food for many desert animals, especially the woodrat and jackrabbit. Indians also used both the fruit and the pads as food. Look carefully on the pads and you will often find green, sapsucking stink bugs.



FISHHOOK CACTUS



ROCK GILIA

Strawberry Hedgehog Cactus •+

(Calico Cactus, Torch Cactus)

Echinocereus engelmannii

CACTUS FAMILY

Sometimes called "calico cactus" because of the many colored spines, it grows in clumps made up of numerous stout cylindrical stems which reach a height of 15-30 cm (6-12 inches). It prefers rocky slopes in higher parts of the desert. Flowering is from April to June. The showy blossoms close at night and reopen the following morning. Fruits are dark red, juicy, rich in sugar, and important in the diet of many birds and mammals. Indians of this region considered them a great delicacy. The fruit has a flavor very much like that of a ripe strawberry, hence its common name.



BEAVERTAIL

Mohave Mound Cactus •+

Echinocereus triglochidiatus

CACTUS FAMILY

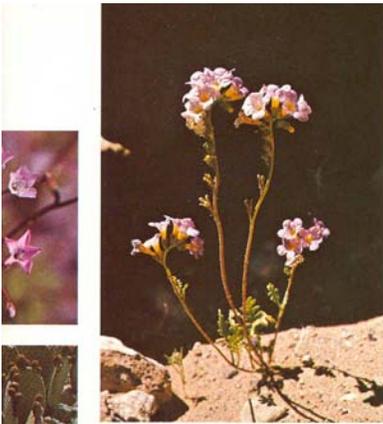
During May and June this clustering "hedgehog" creates a spectacular display of flowers with as many as three per stem. Each flower is 5 to 8 cm (2 to 3 inches) in length and may or may not open completely. The petals are rather thick with a waxy appearance, giving it an almost artificial look. It prefers rocky slopes and rock crevices in higher elevations, ranging into Pinyon-Juniper Community. In the recreation area, it is found through the Newberry Mountains and in the Grand Wash Cliffs.



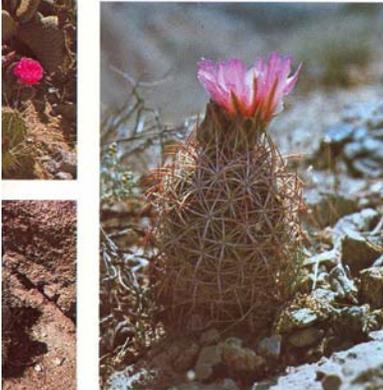
STRAWBERRY HEDGEHOG CACTUS



MOHAVE MOUND CACTUS



FREMONT PHACELIA



PIGMY BARREL CACTUS

Long, slender, hooked spines give this cactus the appearance of being covered with fishhooks. The plant is small, seldom rising more than 12 cm (5 inches) above the ground, so is often overlooked. It may occur in low clumps or as a single stem. Flowers are comparatively large and are produced along the sides of the plant. Sometimes several bloom at one time, forming a crown. They mature into red, club-shaped fruits, eagerly sought by small mammals. It is sometimes called "corksseed cactus" as the seeds have a corky, brown appendage. Look for this inconspicuous cactus among the rock-covered slopes that fan out around low elevation mountain ranges.

Fishhook Cactus •+
(Pincushion Cactus, Corkseed Cactus)

Mammillaria tetrancistra

CACTUS FAMILY

Though similar in appearance to an immature solitary barrel cactus, the pigmy barrel cactus can be recognized by its round, unmarked spines. Growing to 30 cm (a foot) in height and 15 cm (6 inches) in diameter, it appears as a red-gray clump on warm, southern slopes of mountains. Wide variation in flower color makes this plant especially intriguing. In general, there seems to be a color gradient as one travels south from the Las Vegas area. In the Muddy and Spring Mountains, the flowers take on a pinker hue; in the vicinity of Searchlight and the northern Newberry Mountains, they are a lemon yellow. Flowers remain open for a very brief time, usually about five days.

Pigmy Barrel Cactus •+
(Beehive Cactus)

Neolloydia Johnsonii

CACTUS FAMILY

This early spring annual is often found in dense stands on the gravel slopes along lower elevation washes. The flowers are small and the stems slender, so the impression one gets is that of a pink wash over a part of the landscape. The leaves are thin and rather sticky. It blooms from April to June, and in good rainfall years is especially noticeable in the washes above Willow Beach.

Rock Gilia •+

Gilia scopulorum

PHLOX FAMILY

A common annual blooming in early spring and into May, occasionally reaches a height of 30 cm (a foot), but usually less. Leaves are basal, long and profusely lobed. The flowers are characterized by three easily recognized features: they are tube shaped, their throats are yellow, and they have a strong skunk-like odor! It is commonly found in sand and gravel areas along the sides of dry water courses and under shrubs in the mountain valleys around 914-1 066 m (3,000-5,000 feet).

Fremont Phacelia •+
(Yellow Throats)

Phacelia fremontii
WATER-LEAF FAMILY

Purple Mat •+

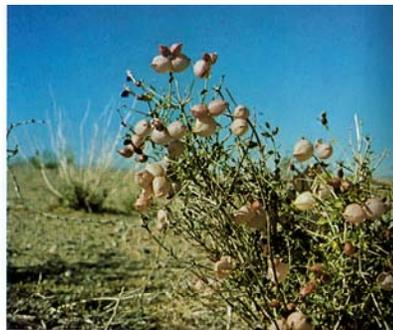
Nama demissum
WATER-LEAF FAMILY

The delicate stems of this beautiful "belly flower" spread closely along the ground in every direction. Near the stem tips and at the base of the plant are the flowers, usually several in number. Leaves are narrow and somewhat hairy. Several plants often grow together, forming a colorful mat of flowers, a characteristic that has given rise to the common name. It blooms from late March to May and prefers sandy washes and gravels throughout lower elevations.

Paper-Bag Bush •+
(Mexican Bladder-sage, Bladder-Sage)

Salazaria mexicana
MINT FAMILY

This is a low, somewhat rounded shrub with aromatic, dark green, veined leaves. The purple flowers are small and rather inconspicuous. The sepals become fused and enlarged with ripening seeds. At maturity, this fruit will break away from the plant, appearing as a small "paper bag." This large container may easily be picked up by the wind and carried a considerable distance, thus aiding in the spread of seeds across the desert. Seeds are frequently used as food by small rodents, especially the antelope ground squirrel. The plant grows in the washes in middle elevations of the desert.



PAPER-BAG BUSH



INDIAN PAINT-BRUSH

Beardtongue

Penstemon bicolor
FIGWORT FAMILY

The genus *Penstemon* is large and represented by many species through the Southwest. This beardtongue is characterized by tubular flowers arranged along a stem 1 to 1.5 m (3 to 4 feet) high. The flowers contain five stamens, however one is usually sterile and covered with many hair-like projections—hence the common name. Leaves are opposite and fused at the base, completely enclosing the stem. Because of limited distribution in the Lake Mead area, it has been classified as a "threatened" species. A favorite of hummingbirds, it may be found occasionally in wash gravels or Desert Wash Communities in Southern Nevada and Northwest Arizona.



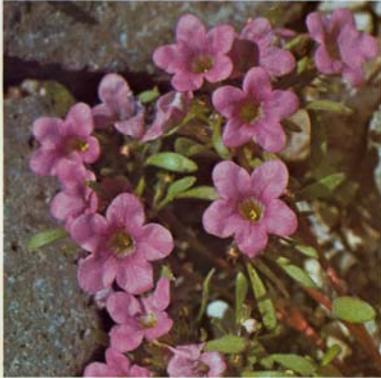
BEARDTONGUE



MOHAVE THISTLE



MONKEY-FLOWER



PURPLE MAT

Indian paint-brush is a perennial which appears in the spring. From a woody root crown, hairy stems rise 30 cm (a foot) or more high. Leaves are narrow and about 2.5 cm (an inch) long. Flowers are barely visible, being hidden at the ends of the stem in a "bush" of scarlet-tipped leaf-like bracts. It grows along rocky crevices and on dry, brush slopes, often growing up among the shrubs themselves. It may show as an isolated plant or in clumps with others of its kind. This is one plant that can be identified easily even from a moving vehicle. The bright color attracts many hummingbirds to feed on the nectar.

**Indian
Paint-brush •+**
(Desert Paint-brush)

*Castilleja
chromosa*

FIGWORT
FAMILY

This is probably the most attractive of the group sometimes humorously referred to as "belly plants." Depending on winter and spring rainfall, it may attain a height of 20 cm (8 inches). A plant this size could easily go unnoticed, but with the relatively large flowers, this seldom happens. Flowers measure about an inch in length and are clustered near the stem tips. Stems are reddish and glandular, with thin leaves. With a short growing season before the heat of summer arrives, most of the plant's energy is directed toward producing flowers for seed production. It prefers the gravels of desert washes throughout low and middle elevations.

**Monkey-
Flower •+**

*Mimulus
bigelovii*

FIGWORT
FAMILY

Thistles represent an interesting group of plants. These are biennial species. During the first year they develop a basal rosette of leaves and a root system. The following year leafy stems and flowers are produced. After flowering, the entire plant withers and dies. The characteristic feature of thistles is the presence of spines from the elevated flowers to the basal leaves. Mohave thistle is found in moist localities of our low mountain ranges.

**Mohave
Thistle •+**

*Cirsium
neomexicanum*

SUNFLOWER
FAMILY

plants whose
flowers are
mainly

BLUE

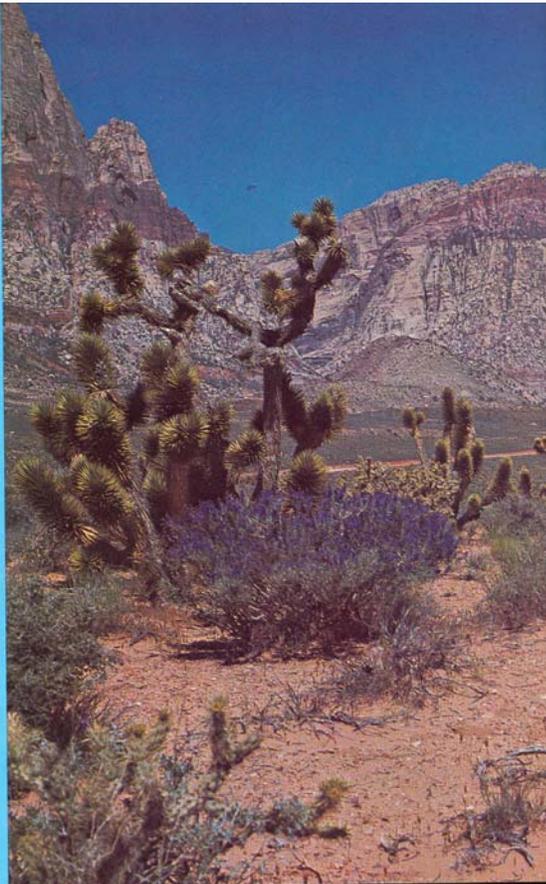
OR SHADES OF BLUE

GREEN

OR SHADES OF GREEN

PURPLE

OR SHADES OF PURPLE





WEAKSTEM MARIPOSA



GIANT FOUR-O'CLOCK



RANGE RATANY

IDIGO BUSH

Most lilies have erect stems, but this plant has stems with a growth habit resembling that of a vine, usually growing up into low shrubs, using the woody branches for support. Sometimes the stems simply wander over the ground. It grows on rocky slopes and benches and, while not common, is widely distributed. It blooms during the spring months. Like other desert lilies, the plant bulb was eaten by Indians. It is also a food source for small animals.

Weakstem Mariposa •+
(Straggling Mariposa)
Calochortus flexuosus
LILY FAMILY

This desert perennial often forms large, round mats of spreading stems about a meter (several feet) across. The flowers are large, sweet-scented and open in early evening and night. It blooms during the spring months and into early fall. The leaves are large-opposite on the stem, and unequal in size. It prefers open stony areas and desert washes and is commonly seen along the Pearce Ferry road and also near Searchlight.

Giant Four-O'Clock •+
Mirabilis Froebellii
FOUR-O'CLOCK FAMILY

With whitish stems, vivid flowers and gray-green leaves, this plant is one of our most attractive shrubs. It grows to a height of a meter (three or more feet) and is extensively branched. It produces many one-seeded, sharp pointed pods, decorated with numerous small, red glands. It grows in sandy washes and open desert. While the normal flowering season is April and May, it may bloom again in the fall if moisture and temperature conditions are suitable.

Indigo-Bush •+
(Mohave Dalea, Fremont Dalea)
Dalea Fremontii
PEA FAMILY

This low woody shrub has a dead or dying appearance much of the year. During the month of May, small green, narrow leaves appear, followed by a burst of flowers. What appears to be petals are highly colored sepals. Flower petals are minute, much shorter than the sepals. The fruit is a heart-shaped bur containing one seed and covered with many delicate red spines. It is common with creosote-bush and bur-sage over open desert areas. The roots were once dried and powdered for their medicinal qualities in healing sores.

Range Ratany •+
(Prairie Burs, Little-leaved Ratany)
Krameria parvifolia
PEA FAMILY

Teddybear Cholla •+
(Bigelow Cholla, Jumping Cholla)

Opuntia Bigelovii
CACTUS FAMILY

This cactus is rather tall, and its short, heavy stems are jointed and covered with a profusion of showy, silvery spines. The spines are barbed and difficult to remove, once attached to clothing or bare flesh. They are deceptive and the passerby may accidentally brush against them before he knows it, hence the name "jumping cactus" and "jumping cholla." Flowers are either greenish or pale yellow and so inconspicuous as to be easily missed. The plant propagates itself primarily by joints on the stems, which drop to the ground and take root. The woodrat adds many of these joints to his nest, not only making his home almost immune from coyotes and other predators, but creating new plants as the joints grow. Cactus wrens build their nests amid the spiny branches.

Bristle Gilia •+

Langloisia setosissima
PHLOX FAMILY

This plant is small, with stiff bristles. The flowers are light violet, with streaks of purple that are believed useful in attracting pollinating insects. Leaves are wedge-shaped, with 3 teeth or lobes at the ends. The entire plant measures only about 7.5 cm (3 inches) across, and grows in tufts. Found only at times of adequate rainfall, this annual is often seen in abundance on rolling hills and along the banks of washes in middle elevations.

Death Valley Phacelia •+

Phacelia vallis-mortae
WATER-LEAF FAMILY

Of several kinds of phacelias in the Lake Mead region, this is the only common one that is weak stemmed and grows up among low shrubs for support. The stems are often purplish, and are covered with hair-like bristles. Leaves are long and parted into leaflets. It grows in broad, gravelly, dry washes in lower elevations of the desert. The flowering period is March to May.

Notch-Leafed Phacelia •+
(Scorpion Weed, Wild Heliotrope)

Phacelia crenulata
WATER-LEAF FAMILY

Two or three forms of this annual, all similar in appearance, occur in the Mohave Desert. It may attain a height of 30-60 cm (1-2 feet). Leaves are longer than wide and notched along the margins. The stems are green, glandular, and strongly scented. Sap of this plant is poisonous to many individuals and may cause severe skin rash, very similar to that produced by poison oak. It blooms profusely in the spring after good winter rains, and grows on gravelly, rolling hillsides and slopes.



MOHAVE SAGE



BRISTLE GILIA



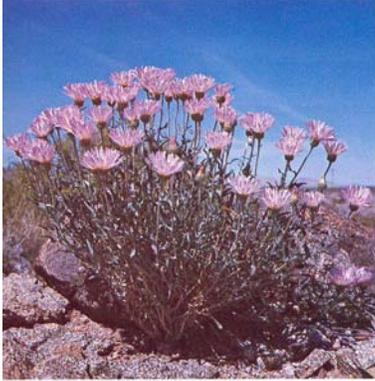
DEATH VALLEY PHACELIA



TEDDYBEAR CHOLLA



ALMER'S PHACELIA CHIA NOTCH-LEAFED PHACELIA



MOHAVE ASTER

This plant may grow 60 cm (2 feet) or more in height and somewhat resembles a small Christmas tree because of the tapering growth form. It produces numerous small, rather inconspicuous blue flowers along its length. There are long, stiff hairs on the stem and shallow-toothed leaves. The entire plant is glandular and produces an extremely ill-smelling odor if handled. Although considered an annual, it requires two years to mature. One of the most restricted plants of the Lake Mead region, it grows only in gypsum-bearing soils, especially along the North Shore Road. It flowers in April and May.

Palmer's Phacelia

Phacelia Palmeri
WATER-LEAF FAMILY

This is a rounded many branched, shrub growing as much as 60 cm (2 feet) in height. Leaves are dark green, deeply veined and very aromatic. The odor is very similar to the sage used in the kitchen. It normally flowers from April to June, but when moisture conditions are right, may bloom again in early fall. It grows in dry rocky washes and canyons, and is especially noticeable in the Eldorado and Newberry Mountains.

Mohave Sage • +

Salvia mohavensis
MINT FAMILY

This annual grows to a height of 30 cm (a foot) or more, with round clusters of flowers produced along the stem. The square stem has opposite branching, crinkled leaves, largely confined to the base and has a strong "minty" odor. It grows on gravelly slopes and in open areas. The seeds were once an important portion of the diet for many desert Indians. They are high in protein and folklore has it that one can survive for an extended period on a solution of water and chia seeds. Antelope, ground squirrels, pocket mice, and small seed-eating birds also use them as food.

Chia • +

Salvia columbariae
MINT FAMILY

This is one of the most attractive desert sunflowers. The flowers are numerous, large, and long-stemmed, so are easily observed. This perennial is somewhat woody at the base and sends up several branches to a height of 30-60 cm (1-2 feet). The leaves are long, with spine-tipped lobes. It grows in rocky areas, and is especially partial to steep-sided ravines. Because of its large showy flowers, it is frequently noticed along roadsides. It blooms from March to May, also in early fall, if sufficient rains have occurred.

Mohave Aster • +

Machaeranthera tortifolia
SUNFLOWER FAMILY



AJO LILY

This resembles a small-flowered Easter lily, and is closely related. The back of each sepal and petal has a green stripe. The flower has a pleasant fragrance. The stem is erect and 15-30 cm (6-12 inches) tall, depending upon available moisture. It is definitely a blow sand and dune species. Its bulb is deep-seated, frequently occurring from 30-60 cm (1-2 feet) beneath the surface. Found in the southern part of the Lake Mead region, it is most often seen along the State highway just west of Davis Dam. The name "Ajo" is Spanish for garlic. The bulb has an onion-like flavor and desert Indians used it as food.

**Ajo
Lily +
(Desert-Lily)**
*Hesperocallis
undulata*

LILY
FAMILY



MOHAVE YUCCA

The Joshua-tree is unique among our yuccas as the only one with a definite, woody trunk and numerous branches. It is covered with short, spine-tipped, narrow leaves. Flowers appear in dense clusters at the ends of branches. The plant does not bloom every year, but is dependent upon availability of sufficient moisture and suitable temperature. Average height of the tree is 6 m (20 feet). These trees furnish important nesting sites for resident birds, and at least one species of lizard lives most of its life under the fallen trunks and branches. The Joshuas often form large forests in the Mohave Desert, with an outstanding growth on the road to Pearce Ferry in the recreation area.

**Joshua-
Tree + +**

*Yucca
brevifolia*

AGAVE
FAMILY

This is our most common yucca. It and the Joshua-tree have much of their distribution within the Mohave Desert, and are therefore considered indicator plants for this geographical region. It has a clumped appearance and may reach a height of 2.5 m (8 feet). Leaves are numerous and as much as 1.25 m (4 feet) in length. They are fibrous and spine-tipped. Indians used the flower petals as food and ground the seeds into a fine meal. They peeled long, white fibers from leaf margins for use in weaving and making rope. Leaves were also made into sandals. The seeds comprise an important source of food for several species of small mammals and birds.

**Mohave
Yucca + +**

*Yucca
schidigera*

AGAVE
FAMILY

Nolina +

*Nolina
Bigelovii*

AGAVE
FAMILY

The Nolina is often confused with the yuccas, but its leaves are finer, grass-like in appearance and have minutely saw-toothed edges. The plume-like flowers are much smaller and less showy than those of yuccas, and appear in May. The flowering stalk, usually 1 m (3 feet) in height, is persistent and often remains intact until the following spring. Seeds are small and hard, and used as food by small rodents. Its large clump of leaves affords protection for insects, small mammals and lizards. The plant does not grow in open areas, but prefers sheltered, rocky locations. It may be found on protected slopes in the vicinity of Christmas Tree Pass in the Newberry Mountains.



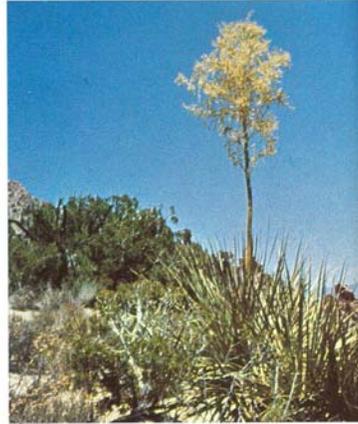
DESERT-ALMOND

Skeleton Weed +

*Eriogonum
deflexum*

BUCKWHEAT
FAMILY

Over 100 species of *Eriogonum* are found throughout the Southwest. Identification of this group of buckwheats can be most frustrating. The skeleton weed is a spreading plant forming an umbrella about 25 cm (10 inches) above the gravels in which they are found. Leaves occur only at the base of the single stem. Scattered along the horizontal branches, small pendulous white or pink flowers about the size of rice grains can be found through spring and summer. In late summer and early fall these plants take on a reddish tinge and are quite commonly seen along the roadsides. Fields of skeleton weed occur in low lying areas at all elevations in the Lake Mead region.



NOLINA

Wishbone Bush +

*Mirabilis
Bigelovii*

FOUR-O'CLOCK
FAMILY

The opposite branching of this *Mirabilis* resembles the pattern of a wishbone, hence the common name. Flowers of this plant are somewhat confusing. There are no petals, only sepals, placed inside a leafy involucre. The sepals are white in color and there is a single flower in the cup-shaped involucre. To those unfamiliar with this family, there will appear to be five fused sepals and five fused petals. Watch for leaves which are opposite and usually unequal in size. The leaf character is important because few desert herbs have opposite leaves. Look for the wishbone bush at all elevations within the recreation area, normally on rocky hillsides.

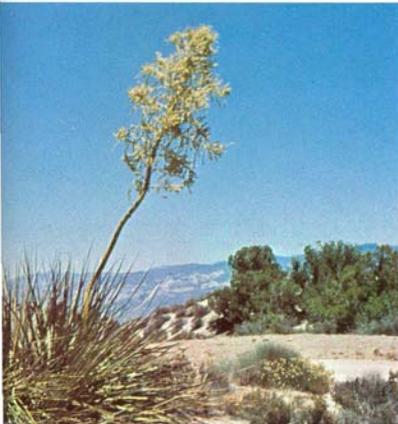


SKELETON WEED

18



WISHBONE BUSH



DESERT ALYSSUM

This is one of the large, showy poppies of the region. It grows to a height of 60-91 cm (2-3 feet). The leaves are lobed, both leaves and stems are covered with needle-like straw-colored spines which tend to prevent desert animals from eating the fleshy tissue. Stems contain a yellowish-orange sap. Large petals surround numerous yellow stamens, making the appearance of the flower similar to that of a fried egg—thus giving rise to one of the plant's common names. The seed capsule is about 2.5 cm (an inch) long and quite spiny. It is commonly found from the lower elevations into the Joshua-tree Community around 1 066 m (3,500 feet), and often grows in roadside gravels and sandy washes.

Prickly Poppy + (Cowboy's Fried Egg)

*Argemone
munita*

POPPY
FAMILY

The stems of this many branched perennial may extend to a height of 60 cm (2 feet) and are spreading, resulting in a rounded appearance. Leaves are divided and thread-like, growing throughout the length of the stems. The foliage has a sharp and peppery taste. Flowers have minute petals measuring less than .3 cm (an eighth of an inch) in length and are fragrant. The fruiting pods are notched at the tip and each compartment contains a single seed. It prefers gypsum soils and is widespread in the region, being especially common in roadside gravels. It was once known as a treatment for skin disorders.

Desert Alyssum +

*Lepidium
Fremontii*

MUSTARD
FAMILY

The desert-almond is a common shrub with leaves less than 2.5 cm (an inch) in length, clustered at sites along its branches. The small, rather inconspicuous flowers appear in April. They rapidly dry and fall along with the leaves at the onset of summer. At times large web masses of the Great Basin tent caterpillar can be observed tangled in the gray branches. The desert-almond requires large quantities of water and is, therefore, limited to the Desert Wash Community at middle elevations.

Desert-Almond +

*Prunus
fasciculata*

ROSE
FAMILY



PRICKLY POPPY

19

White Margined Spurge +
(Rattlesnake Weed)
Euphorbia albomarginata
SPURGE FAMILY

Lying flat against the ground, the white margined spurge forms green mats that may measure 30 cm (a foot) or more in diameter. The mat is composed of many tangled branches with numerous small leaves. Stems are filled with a white milky sap. What seem to be white flowers nestled among the leaves are in reality only petal-like appendages, giving an excellent imitation of a real flower. The male and female flowers are set inside and are so small a hand lens is required to observe them. It grows along the roadside and in gravel washes at all elevations in the desert.

Parry Sandpaper-Plant
Petalonyx Parryi
STICK-LEAF FAMILY

This small woody shrub is well named, as its green stems and leaves are covered with short, barbed hairs having the rough texture of sandpaper. The plant is very stiff and the stems break easily. Flowers are fragrant and appear in profusion in the summer. It is limited to very alkaline soils, but may be seen along the North Shore Road from Las Vegas Wash to Overton.

Dune Primrose +
Oenothera deltoides
EVENING-PRIMROSE FAMILY

This is one of the most fragrant of desert wildflowers. The showy white blossoms are a conspicuous part of the spring flower display, but often turn pink before wilting. The flowers bloom in April and May, and open at night. Stems may extend along the ground as much as 50 cm (20 inches). Upon drying they curl upward and inward, forming what is often termed "baskets" or "bird cages." Found mainly in sandy soils, the plant may completely cover sheltered areas where blow sand finally settles. Other white flowered primroses occur in the region, very similar in appearance to this species, but this is the commonest one. Leaves are a primary food for larvae of the two-lined sphinx moth.



RUSH MILKWEED



PARRY SANDPAPER-PLANT



DUNE PRIMROSE



BROWN-EYED PRIMROSE

SMALL-LEAVED AMSONIA

WHITE MARGINED SPURGE

This annual is a simple, single, reddish-stemmed primrose. Leaves are green, mostly basal and toothed. The flowers may show a variety of colors, ranging from white to cream or buff. Normally there is a dark spot at the base of each petal, although sometimes this is absent. The seed capsules are on stalks, about 2.5 cm (an inch) long and club-shaped. It is common on open gravelly soils in low and middle elevations and blooms from March to May.

This many-stemmed perennial grows only about 30 cm (a foot) or more in height. The flowers, bluish when first open, soon fade and become whitish. They are borne as clusters at the tips of leafy stems. Seed pods are 5-7.6 cm (2 to 3 inches) in length. Stems are filled with milky sap believed to be poisonous. It grows in gravelly soils above the bottoms of dry washes, usually above 914 m (3,000 feet) in elevation. A closely related species, *Amsonia tomentosa*, is very similar in appearance, except the leaves are gray-green in color and the stems are covered with a coating of dense wool. Both species frequently grow together. While both flower in the spring, they may bloom again in early autumn if sufficient rain has fallen.

Rising as much as 1.2 m (4 feet) or more above the gravels of a desert wash, the stems appear as lifeless brown stalks during most of the year. With the coming of spring, the stems turn green, but do not produce leaves. Flowers soon appear on the extreme upper portions of the stems. Following an extended flowering season, long seed pods appear. These measure up to 10 cm (4 inches) in length and are filled with flattened seeds with dense patches of silky-white hair attached to their apex. It is usually found below 6 009 m (2,000 feet) elevation.

Brown-Eyed Primrose +
Camissonia clavaeformis

EVENING-PRIMROSE FAMILY

Small-Leaved Amsonia +
Amsonia brevifolia

DOGBANE FAMILY

Rush Milkweed +
(Ajamete)
Asclepias subulata

MILKWEED FAMILY

**Humble
Gilia •+**

*Linanthus
demissus*

PHLOX
FAMILY

This small annual is well named as it is very low growing and easy to overlook. The entire plant is not over 5 cm (2 inches) tall. It is leafy and covered with small hairs. The petals of the flower are twisted, and each as on the inside two conspicuous purple parallel lines at its base. Flowers are fragrant, with usually several on a plant. While often found in localized clumps, it cannot be said to be common. It likes gravel washes and desert slopes in lower elevations.

**Forget-
Me-Not •+**

*Cryptantha
angustifolia*

DORAGE
FAMILY

Several species of *Cryptantha* in this region have small white flowers and four-parted nut-like fruit. All have a close resemblance, and a thorough examination of the fruits is required to separate these plants at the species level. All have flowers with petals fused at the base and barely exceeding the sepals. These plants are mostly bristly annuals with narrow leaves. The various kinds range in size from 7.6 cm (3 inches) to less than 30 cm (1 foot) tall. Some are so tiny they easily merit the name of "belly flowers." They are commonly found in the Creosote-bush Community throughout the region. They bloom in early spring.

**Sacred
Datura •+**
(Western Jimson-Weed,
Thorn-Apple)

*Datura
meteloides*

NIGHTSHADE
FAMILY

This plant grows up to 1 m (3 feet) in height and may cover over 15 sq. m (50 square feet) of ground. The large, gray-green leaves and trumpet-shaped flowers are a common sight along some roads and in washes. The flower blooms mostly at night, usually closing up in daytime, but may sometimes remain open if not in intense sunlight. Just before sunset it gives off a strong, sweet fragrance that serves to attract sphinx moths and thus insure pollination. Seed pods are round and thorny. All parts of the plant contain atropine and related alkaloids, poisonous compounds that have been known to cause death when eaten. Indians once used the plant to induce visions. It is often called "jimson-weed," the common name given its close relative by the settlers at Jamestown, Virginia.



SACRED DATURA



FORGET-ME-NOT



PALMER PENSTEMON



DESERT WILLOW



HUMBLE GILIA



DESERT TOBACCO

This plant is usually under 60 cm (2 feet) tall, with tubular flowers about 2.5 cm (an inch) in length. The leaves are dark green, clasping at the base. If crushed, the foliage gives off a strong, somewhat ill-smelling odor. It blooms from early spring to June, but may produce flowers into fall. It prefers washes and rocky areas, especially around a cliff base. It is known to contain nicotine and was smoked by Indians of this region in ceremonial celebrations. Another member of this family—tree tobacco—is a small tree and grows along the shores of Lake Mead. It has tubular yellow flowers.

**Desert
Tobacco •+**

*Nicotiana
trigonophylla*

NIGHTSHADE
FAMILY

This is a tall plant, ranging from .6-1.6 m (2-6 feet) high. Leaves are sharply toothed, but do not extend far up the stem. The upper 20-50 cm (8-20 inches) of the stem bears numerous tubular flowers, characterized by being strongly two-lipped. Prominent purplish lines extend from the lower lips into the flower throat. The flowers produce a sweet scented fragrance, and their nectar is much sought by bees. Leaves are used by wildlife for food, especially by deer. The plant grows in broad, gravelly washes and canyons, and is especially partial to limestone soils.

**Palmer
Penstemon •**

*Penstemon
Palmeri*

FIGWORT
FAMILY

This is not a willow at all, but a member of the catalpa family. Its willow-like foliage has given this small tree or large shrub its name. Its trunk is crooked and has black bark. It flowers from April to July, but most of the year is inconspicuous among the heavier growth of trees and shrubs which often form thickets in desert washes. Long, slender seed pods identify the tree long after flowers are gone. The orchid-like flowers are of such beauty that the plant is sometimes cultivated as an ornamental. The durable wood was prized for fence posts by ranchers and settlers. Leaves are used as food by larvae of the white-winged moth, and pupa cases, about 2.5 cm (an inch) in length, may frequently be seen on the branches in late spring or early summer.

**Desert-
Willow •+**
(Desert-Catalpa)

*Chilopsis
linearis*

BIGNONIA
FAMILY

Desert-Star • +

Monoptilon bellioides
SUNFLOWER FAMILY

This little annual easily qualifies as a "belly flower," as its stems cling close to the ground, its dull green hairy leaves form a circle of some 10-15 cm (4 to 6 inches) across. The flowering heads are placed at the tips of the stems. It has the typical "daisy" appearance. The plants grow in rocky or sandy soils, and are often so thick that it is difficult to avoid stepping on them. They bloom from late March to May.



DESERT-STAR

Pebble Pincushion • +

Chaenactis carphoclinia
SUNFLOWER FAMILY

This annual has a rather brief life span, as its short roots are not long enough to reach much moisture. If the spring is sufficiently wet, the plant grows to a foot or more in height and produces a profusion of flowers. If the moisture is limited, it develops short stems and few flower heads. The heads are rounded, and have narrow florets which appear to be "pinned" to the receptacle. It likes dry flats and rocky slopes in lower elevations, often growing in areas almost devoid of other plant life. Another closely related species, the Fremont pincushion, is often found growing in the same general area.



GRAVEL GHOST

Fremont Pincushion • +

Chaenactis fremontii
SUNFLOWER FAMILY

This little annual is one of the most abundant flowers to be found in a good flower year. It may have a simple stem or branch, and grows to a height of as much as 38 cm (15 inches). The stem is green with leaves somewhat fleshy and rounded. The flowers in the center of the head are minute and five-lobed, with the stigma lobes appearing as two white "horns." Those around the outer margin of the flower head are larger and irregular in shape. It prefers sandy soils in the gravelly washes and open slopes in the middle and low elevations. Often it grows around the bases of creosote-bushes. (See also the pebble pincushion).



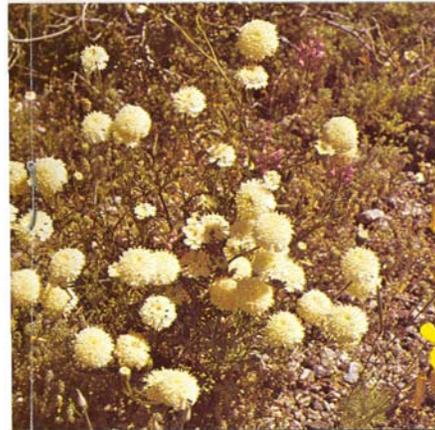
WHITE TACKSTEM



FREMONT PINCUSHION



DESERT-CHICORY



PEBBLE PINCUSHION

The large flowers, born on a tall, slender inconspicuous, leafless stem seem to be floating in mid-air, giving rise to its common name, and also to that of "parachute plant," by which it is sometimes known. Its large, spotted leathery leaves lie flat on the ground and bear some resemblance to tobacco leaves. The flowers sometimes have purplish tips to the rays. It prefers rocky slopes and desert washes from middle to low elevations. It blooms from April to June, and in a good flower season will be commonly found in the washes above Willow Beach.

Gravel Ghost • +
(Tobacco-Weed, Parachute Plant)
Atrichoseris platyphylla
SUNFLOWER FAMILY

The chicory is a weak, fragile-stemmed annual that is common when a good spring flower season occurs. The floral arrangement is very similar to that of the common dandelion. The ray flowers are veined with rose-purple on the underside, and the flower has a pleasant fragrance. It is often found growing under protective cover of shrubs where shading tends to reduce moisture loss. It blooms from April to June in washes and on gravelly slopes of middle to low elevations of the region. The flower closely resembles the white tackstem.

Desert-Chicory • +
Rafinesquia neomexicana
SUNFLOWER FAMILY

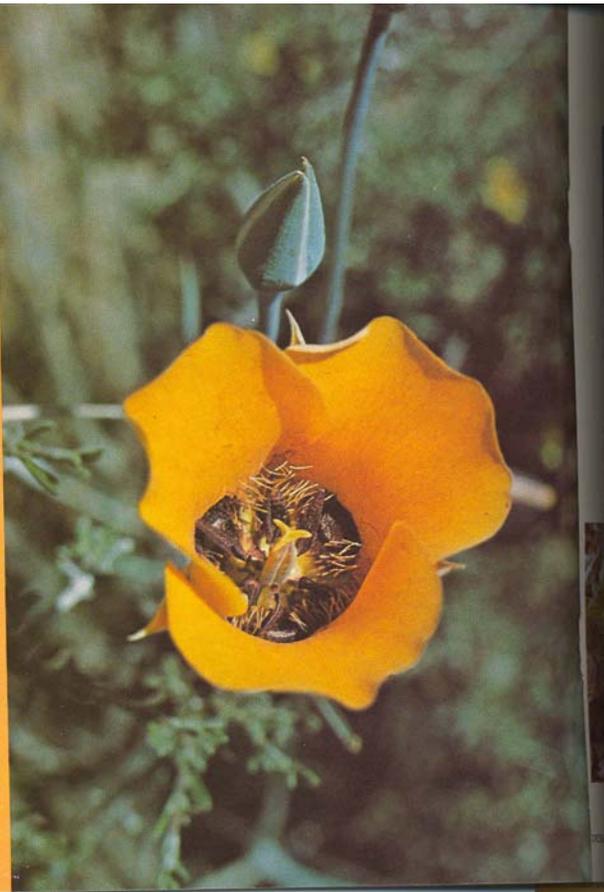
Closely resembling desert chicory, white tackstem is similarly veined, streaked or dotted with rose or purple on the backs of the ray flowers. However, there are significant differences in stems and leaves. This plant has slender leaves, much divided, the chicory has broad leaves, mostly at the base of the plant, with small leaf-like bracts along stems. The stem below the flowering head of tackstem has dozens of minute tack-shaped glands. Another species, Parry tackstem, has yellow flowers.

White Tackstem • +
Calycoseris Wrightii
SUNFLOWER FAMILY

plants whose
flowers are
mainly

YELLOW
OR SHADES OF YELLOW

ORANGE
OR SHADES OF ORANGE



DESERT-TRUMPET

Under favorable climatic conditions, this short-stemmed, almost leafless lily produces a variety of flower colors. In our region, the color varies between yellow and orange. At the base of each petal and sepal is a black or purple gland which helps attract pollinating insects. The plant survives the harsh desert climate by burying its bulb as deep as 60 cm (2 feet) below the surface. The bulb was used as a source of food by Indians and early settlers. It is sometimes dug up and eaten by small rodents. (A red-flowered variety is found in Death Valley National Monument). "Mariposa" is Spanish for butterfly.

**Desert
Mariposa** .+

*Calochortus
Kennedyi*

LILY
FAMILY

This is one plant which lends emphasis to the admonition "watch where you walk in the desert!" It is small, growing only 7 or so cm (a few inches) in height. The leaves are woolly and grow around the base of a cluster of green spiny bracts. Flowers are tiny and almost concealed by the spines. It blooms during spring and early summer months. The stem and spines soon become woody after the plant dies. During this time its sharp spines pose a threat to anything walking across the desert. It is well equipped to withstand extreme heat and is commonly found in coarse gravels and areas of desert pavement in open, low elevations.

**Spiny
Chorizanthe** .+

(Rigid Spiny-Herb)
*Chorizanthe
rigida*

BUCKWHEAT
FAMILY



SPINY CHORIZANTHE

This remarkable plant was discovered by John C. Fremont on his journey across the Mohave Desert in 1844. The leaves form a flat mat against the ground. The leafless, branching, flower stem rises 30 cm (a foot) or more above the mat of leaves. It likes washes and areas of disturbed soil, especially along road shoulders. The plant has many uses. Stem tips taste a bit sour, but can be used in salads. Desert animals, such as the bighorn, find it an excellent food. The hollow, inflated stem is sometimes used by a tiny wasp as a rearing chamber. Drilling a small hole near the top of the inflation, she inserts several insect larvae into the cavity and lays her eggs on them. When the eggs hatch, her offspring have plenty to eat. Look for a small hole near the top of the swollen stems. If you find one, it was probably made by the wasp.

**Desert-
Trumpet** .+

*Eriogonum
inflatum*

BUCKWHEAT
FAMILY

Bear-Paw Poppy
(Bear-Poppy, Desert-Poppy, Bear-Claw Poppy)

Arctomecon californica
POPPY FAMILY

The common name is from the densely hairy leaves, shaped somewhat like a three-toed "foot." Several flowers form on the tip of a leafless, but hairy stem. Because it grows only on harsh alkaline soils it is restricted in numbers, and has been recommended for placement on the list of threatened and endangered plants of the Lake Mead area. Unfortunately, many flowers are picked by persons unaware that the flowers wilt very quickly and that picking them destroys much needed seed production. It blooms in late March and April and is best seen near Las Vegas Wash and Rogers Spring. A white blossomed variety of this plant is found in Death Valley National Monument.



BEAR-PAW POPPY



PRINCE'S PLUME

Desert Gold-Poppy +

Eschscholtzia glyptosperma
POPPY FAMILY

This, a smaller duplicate of the California State flower, has flowers a bright yellow, compared to the orange-yellow of its California relative. It stands approximately 30 cm (one foot) tall and produces numerous blooms each one single on an erect, naked stem. Occasionally flowers are found with pronounced orange spots at the bases of petals. Leaves are located near the base of the plant. It is often quite abundant at lower elevations when there has been sufficient winter moisture, preferring the sands and gravels of washes and rolling hills. It produces great numbers of seeds which are used as food by small wild creatures.



BLACKBUSH



LITTLE GOLD-POPPY

Little Gold-Poppy +

Eschscholtzia minutiflora
POPPY FAMILY

Resembling the desert gold-poppy, this little plant differs mainly in flower size. The entire plant may be only 5-7 cm (2-3 inches) across, while the flower stems bear one or more 1 cm (1/2 inch) wide blossoms. It grows best in broad, gravelly washes and on open slopes. In good flower years, it is common from the Boulder Beach area southward, blooming in March and April.



BEAD-POD



PALO-VERDE

Prince's Plume +
(Desert-Plume)

Stanleya pinnata
MUSTARD FAMILY

One of the more noticeable plants of the Mohave Desert, it stands over 1 m (3 feet) high. The silvery-green leaves are produced mostly on lower portions of stems and are deeply cleft. Flowers are large and showy, a situation uncommon to the Mustard family. Seed pods are narrow, measuring up to 7.6 cm (3 inches) in length. These plants are considered poisonous because of their ability to fix selenium from alkaline soils into the stem and leaves. Look for them in Desert Wash Communities.



DESERT GOLD-POPPY

Coating the desert with large areas of color, this annual is commonly found during spring months in low to middle elevations. It grows to a height of about 30 cm (a foot) or more, and has several slender stems on each plant, often forming a large clump. The petals are short, only .6 cm (one-fourth inch) in length. Fruits resemble small rounded beads and are on slender stalks branching from the stem. Like other mustards, it has a sharp taste. It grows best in sandy areas.

Bead-Pod +

Lesquerella Palmeri
MUSTARD FAMILY

The blackbush is an important plant community indicator, growing just above the upper limit of creosote-bush. It often grows in such pure stands as to give a blue-gray or pale purple appearance to wide areas on the benches and slopes of desert ranges. It ordinarily grows to a height of about 60 cm (2 feet) and its branches are tough and rigid. The flowers do not have petals; sepals furnish the color. This plant, as well as the creosote-bush, emits chemicals which may help inhibit growth of competing plants. An important ground cover plant, it provides both food and protection for small forms of animal life.

Blackbush +

Coleogyne ramosissima
ROSE FAMILY

Paloverde is Spanish for "green stick or tree," an excellent description for this low desert species. The tree stands 4.5-6 m (15-20 feet) high and has smooth blue-green bark. The compound leaves are present only during spring, soon falling away with desert heat. The bark then takes over the task formerly carried on by leaves. Flowers are typical of the pea family; seed pods are long and narrow with a constriction between each two seeds. Seeds have an especially hard coating that must be cracked or abraded before they will germinate. Indians produced a meal from the seeds by grinding them and mixing with water. Several kinds of desert wildlife use the seeds as food. Thus far, the plant is known only in the recreation area along the eastern shore of Lake Mohave, opposite Cottonwood Cove.

Paloverde +

Cercidium microphyllum
PEA FAMILY

Mesquite • +
(Honey Mesquite)

Prosopis glandulosa
PEA
FAMILY

This many-branched shrub or small tree is one of the desert's valuable water indicating plants. Look for this handsome thorny tree where springs occur or water is near the surface of the ground. Its roots may penetrate 15-24 m (50 to 80 feet) in search of water. Flowers bloom in late April and May and attract many insects, especially honey bees. The fruits, resembling string beans, ripen in autumn and are eaten by several kinds of animals. Indians ground the long, sweet pods into a meal. During pioneer days, the wood was used as fuel, fence posts, and in making furniture. Mesquite frequently acts as a windbreak, and wind-blown sand may pile up around a plant, almost burying it. It responds by sending out many more branches, while the trunk continues to grow underground. A thicket of mesquite is an important habitat for small burrowing mammals as well as for birds and small reptiles.



MESQUITE

Catclaw • +

Acacia Greggii
PEA
FAMILY

Numerous thorns, short and curved like a cat's claw, readily identify this deciduous shrub or small tree. It often forms thickets in the bottoms of canyons and washes. The plant is heartily cursed by rider and hiker alike because of its ability to catch and tear clothes and flesh. It is sometimes called "wait-a-minute" bush and "devil's-claw." The flower is very fragrant and an important source of honey. Seeds are in pods and were formerly used by Indians as food. Occasionally mistletoe causes large spindle-shaped swellings on this plant but is more common on mesquite. The thorny branches offer an excellent nesting site for the verdin, while lower branches afford fine protection for small mammals.



HAIRY LOTUS

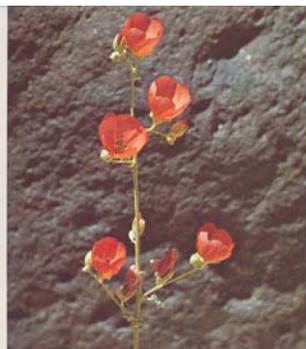
Hairy Lotus • +
(Deer-Vetch)

Lotus tomentellus
PEA
FAMILY

The main characteristic of this small prostrate annual is the compound leaves. The leaflets usually number from 4-8 and are covered with fine woolly hairs. Flowers are minute, less than .8 cm (one-third of an inch) long. The petals are often reddish on the back with age. Several seeds are produced and are gathered and stored by small rodents. The plant continues to grow as long as the soil remains moist. It may be found in roadside gravels and along desert washes at all elevations in the southern portion of the region.



CATCLAW



GLOBEMALLOW



DESERT SENNA



CREOSOTE-BUSH

This low, rounded, many-branched shrub adds little color of any kind to the desert during most of the year, appearing dead and leafless much of the time. If winter rains furnish sufficient moisture, its smooth, pointed, stems become greenish, a few small leaflets appear and the shrub bursts into a vivid mass of flowers in April and May. With disappearance of the flowers, the tiny leaflets are shed to conserve moisture during the hot summer. Occasionally it receives enough late summer rains to bloom again in the fall. The seeds are utilized for food by small mammals. It is most conspicuous in the desert washes or open areas throughout middle elevations of the region.

Desert Senna • +
(Desert Cassia)

Cassia armata
PEA
FAMILY

This is one of the most abundant plants of the Southwest deserts. The leaves often glisten as if freshly wet, because of a coating of oily resin. This oil adaptation protects the plant from too great a water loss during the long, dry periods between rains. In April and May the plants take on a yellowish cast from the numerous flowers. After a few weeks, the shrub is covered with fluffy, white ball-like fruit, each containing five seeds. Lac, a resinous incrustation on the branches, was used by Indians to repair pottery and glue arrowheads to arrow shafts. After a rain its name becomes evident, as it gives off a resinous, sweet odor. It is often referred to in Mexico by the name of "hediondillo," translated "little bad smell" or "little stinker."

Creosote-Bush • +

Larrea tridentata
CALTROP
FAMILY

Globemallows flaunt their graceful, blossom covered stems on either side of the road between the Visitor Center and Las Vegas, and throughout most of the region, especially in disturbed soils and washes. A herbaceous perennial with a woody base, it grows as tall as 1 m (3 feet). The rounded leaves usually appear shrunken and wrinkled. Some people find the silvery hairs of the plant irritating to the eyes. In some parts of the Southwest they are called "sore-eye poppies." When in full bloom, the plant takes on a fiery glow in late afternoon sun. It flowers throughout the year when conditions are right, but is most often seen from March to June.

Globe-mallow • +
(Desert-Mallow, Desert-Hollyhock)

Sphaeralcea ambigua
MALLOW
FAMILY

Rock-Nettle +
(Sting Bush)

Euclyde urens

STICK-LEAF FAMILY

This plant is well named, as contact with it causes considerable discomfort. The skin soon develops a red, stinging rash similar to that from the familiar stinging nettle. Thousands of small, sharp-pointed poisonous hairs and shorter barbed ones give a silvery sheen to its leaves and stems. The leaves cling to clothing and are difficult to remove. The plant grows from 30-60 cm (one to two feet) high. It prefers the rocky canyons under shady overhanging ledges, and is frequently found along the shores of the lake. It flowers from April to June. Except for various insects and small reptiles, most animal life seems to shun the plant.



BLAZING STAR

Blazing Star +
(Desert Corsage, Spiny-haired Blazing Star)

Mentzelia tricusps

STICK-LEAF FAMILY

This is a coarse-stemmed, much branched, annual with roughened texture of the stem and leaves which causes them to cling to clothing. It grows to a height of about 30 cm (one foot) when it has sufficient moisture. The outer stamens of the flower are dilated and have three lobes at the end. A sun-loving plant, it is commonly found on south facing slopes and low ridges in lower elevations. It blooms from March to May.



ROCK-NETTLE

Small-Flowered Blazing Star +

Mentzelia albicaulis

STICK-LEAF FAMILY

This annual is branched at the base, with white and shining stems, and grows about 38 cm (15 inches) tall. Flowers are small and rather inconspicuous, measuring approximately 1.2 cm (one-half inch) across, and appear from March to May. It grows well in either the open or in partial shade of shrubs, and is commonly found on sandy or gravelly soils of dry washes or open desert.



SMALL-FLOWERED BLAZING STAR

Mohave Prickly-Pear +

Opuntia phaeacantha

CACTUS FAMILY

The Mohave prickly-pear is primarily a spreading cactus with large circular flattened stems. Besides the noticeable curved spines, this plant also produces the minute hair-like spines called "glochids." Flower color, as in many cacti, is variable; in this species it ranges from bright yellow to peach. The fruits or "tunas" take on a purple color when mature and are commonly used in production of jellies, syrups, and wines. They also serve as food for many of our small desert mammals. Rabbits often feed on the petals during late evening hours. This cactus has limited distribution in the Lake Mead area, visible only at higher elevations of the Newberry Mountains and Grand Wash Cliffs.



MOHAVE PRICKLY-PEAR



HOLY CROSS CHOLLA



SILVER CHOLLA



BUCKHORN CHOLLA

This much branched, robust and long-stemmed cholla is common throughout the region. Typically, it achieves a height of 1.2 m (4 feet) or more and occurs in open basins and valleys in the Creosote-bush Community. Flowers may be yellow, variegated or tinged with red. Spines are 2.5 cm (one inch) or more in length, stout, and quite numerous. Straight portions of the stems are often made into walking canes or other woodcrafts. Indians steam the buds and eat them in combination with pinole or salt-bush greens. The fruits are also eaten by rodents, such as the woodrat.

Buckhorn Cholla +
(Deerhorn Cholla, Cane Cholla)

Opuntia acanthocarpa

CACTUS FAMILY

This is an easy cactus to miss, as it often grows in the shadow of larger desert shrubs. It is a much-branched plant with very slender, woody stems. The spines are long and formidable in appearance. As with most chollas, the long central spines are encased in a sheath, like a sword in its scabbard. Flowers, when present, are small and inconspicuous, hence often overlooked. The plant is most often noticed in late fall and winter because of the handsome 2.5 cm (one inch) fruits. Old stems lose their spines and appear reddish in color in late summer. It prefers desert flats and is common along the roads to Temple Bar and Davis Dam.

Holy Cross Cholla -
(Darning-Needle Cactus, Diamond Cactus, Pencil Cholla)

Opuntia ramosissima

CACTUS FAMILY

This cactus grows as a low shrub with few ascending stems and many short, spreading branches. The numerous straw-colored spines, borne on short tubercles, are covered with thin, papery sheaths. When these are moistened they taste like witch hazel. It blooms in April and May. The flower petals are sometimes tinged with red on the outer petals. Flowers are followed by dry, spiny fruits that often do not mature. The silver cholla seldom forms thickets. After it has dried, the woody tubular stem skeletons, appropriately called "ventilated wood" by desert campers, make excellent fuel. It is found in low elevations, preferring wide gravelly washes and open slopes.

Silver Cholla +
(Straw-Top Cactus)

Opuntia echinocarpa

CACTUS FAMILY

Old Man Prickly-Pear •+
(Grizzly-Bear Cactus)

Opuntia erinacea
CACTUS FAMILY

The "old man" cactus received its name from the dense white or pale gray beard-like covering of spines. Flowers are bright yellow, often tinged with pink or red, and sometimes may be a rich reddish-purple. The pod-like joints form mats that may rise 60 cm (two feet) or more in height. The plant prefers gravelly slopes in higher elevations and may be found in the Newberry Mountains. A reddish-flowered variety grows in the Pearce Ferry area associated with the Joshua-tree forest. Both varieties bloom from late April to June. Unthinking people often illegally remove these plants from their natural habitat and try to grow them under unsuitable conditions.



COTTON-TOP CACTUS



GROUND CHERRY

Cotton-Top Cactus •+
Echinocactus polycephalus

Echinocactus polycephalus
CACTUS FAMILY

The name "cotton-top" refers to the generous tufts of white cottony hairs enveloping the flower base and fruit. Because these "balls of cotton" are present throughout most of the year, species recognition is easily accomplished. The stems are usually clumped, often in groups of more than a dozen, and grow only 30 cm (a foot) or so in height. It prefers the gravelly slopes and is seldom found elsewhere. Spines and flowers resemble the solitary barrel cactus, but their distribution differs. It ranges from the Creosote-bush Community to the Pinyon and Juniper Community. They may be seen in several places in the recreation area, but especially as one descends from Searchlight to Cottonwood Cove and around Pearce Ferry.



SOLITARY BARREL CACTUS



FIDDLENECK

Solitary Barrel Cactus (Bisnaga)
Ferocactus acanthodes

Ferocactus acanthodes
CACTUS FAMILY

Together with other species, this cactus is also called "bisnaga." The solitary barrel cactus, at first globular in form, eventually becomes cylindrical and may grow to a height of 1.5-1.8 m (5 or 6 feet). It tends to grow toward the sun, which often produces a leaning habit frequently seen in older plants. The flat reddish spines exhibit rings approximately .3 cm (1/8 inch) apart. Flowers are yellow and arranged in a circular pattern at the apex of the stem. While it has been called a wonderful thirst quencher, the slimy alkaline juice obtained by mashing the pulpy flesh might in an emergency save a life, but is not suitable to drink. Woodrats have been known to eat into the plant at the base, living off of the soft tissues and water while being well protected from enemies.



SUNDROP



OLD MAN PRICKLY-PEAR



TWINING SNAPDRAGON

This is one of the most noticeable of several different kinds of primroses in the region. It may grow to a height of 60 cm (two feet) and produce from 1-6 vertical stems. Each stem may have several flowers, with each flower about 2.5 cm (an inch) across. The toothed leaves are mostly confined to a basal rosette, usually emerging in early spring or late winter months. They are often red-veined beneath. It is an abundant plant of broad gravel washes and rolling hills, blooming from March to May, and is an important food for wildlife, especially bighorn sheep.

Sundrop •+
(Yellow Cups, Golden Evening-Primrose)

Camissonia brevipes

EVENING-PRIMROSE FAMILY

It is thought by some that the forget-me-nots received their name from the dense covering of clear stiff prickly hairs. Once you've become acquainted with these plants you, too, will not forget them. Fiddleneck possesses small flowers less than 1.2 cm (one-half inch) in length. The arrangement of these flowers in one-sided coils resembles the structure of the neck of a violin, hence the common name. Each flower produces a nutlet fruit composed of four parts. Seeds are believed to cause digestive problems in grazing cattle and sheep. Fiddlenecks are abundant in the open Creosote-bush Community, especially in southernmost portions of the recreation area.

Fiddleneck •+

Amsinckia tessellata

FORGET-ME-NOT FAMILY

This is a rather compact plant and a common desert perennial. It is usually low-growing, but under favorable moisture conditions may grow to a height of over 30 cm (a foot). The flower is pendant and saucer-shaped when open. After blooming, paper seed pods are formed, with a many-seeded berry inside. It grows in desert washes and around protective boulders, and blooms from April to July. It is related to the tomato and the berries are edible and may be eaten raw or cooked. Some people have used them in making preserves. Indians knew the value of the berries for food. Several small animals find them good to eat.

Ground Cherry •+

Physalis crassifolia

NIGHTSHADE FAMILY

This flower resembles the garden snapdragon, but is smaller. It grows on a bright green, thread-like stem which climbs by twisting around the low branches of desert shrubs, thus receiving only limited exposure to sunlight. Never found in any great abundance, it is confined to the Creosote-bush Community where it is often associated with bur-sage growing in the washes. It blooms in April and May.

Twining Snapdragon •+

Antirrhinum lilipes

FIGWORT FAMILY

Lesser Mohavea • +

Mohavea breviflora

FIGWORT FAMILY

The flowers resemble the familiar garden snapdragon, and are partially hidden by the leafy stem. The plant grows only about 15-20 cm (6-8 inches) in height, and its stem is branched from the base. It is covered with many glandular hairs, resulting in a very sticky texture. Because of this, sand particles are usually found adhering to the stem and leaves. A short-lived annual, it germinates, flowers, and produces seed in a three-week period. It is a lower elevation plant and prefers the steep talus slopes of lava hillsides, but also occurs on gravelly banks of washes.



LESSER MOHAVEA

Coyote-Melon • +

Cucurbita palmata

GOURD FAMILY

Like other gourds, this plant spreads out for several feet, with stems being recorded as long as 3 m (10 feet). Leaves are large, palmately lobed, and dark green. The plant usually has both male and female flowers. The female flower is large with a 5-lobed pistil, the male flower is smaller, the anthers formed into a single central knob. The mature gourd is yellow and up to 10 cm (four inches) or more in diameter. The plant prefers gravelly banks of washes and is frequently seen growing in disturbed soils along roadsides. The gourd is a favorite food of the coyote, hence the common name.



COYOTE-MELON

Matchweed • +
(Snake-weed, Broom Snake-weed)

Gutierrezia sarothrae

SUNFLOWER FAMILY

These small rounded shrubs bloom during late summer and fall, often occurring in almost pure stands. The flowering heads are small but quite numerous, sometimes numbering into the hundreds. They are clustered in bunches at the ends of the many branches. The leaves are resinous and burn readily when dry. It grows best on open slopes and is especially abundant around 914 m (3,000 feet) or more in the Joshua Forest Community. The flowers are favorite targets for bees.



MATCH-WEED



SPINY GOLDENBUSH

Spiny Goldenbush

Haplopappus Goodingii

SUNFLOWER FAMILY

Found in late summer and fall, this plant seems to grow best on gravelly areas and rocky canyon walls. It is a perennial, with several leafy stems arising from a woody base. It grows 15-40 cm (6-16 inches) tall and is bright green. The leaves are short and slender with many bristle-tipped lobes. Its green foliage and seeds furnish food for small rodents.



GOLDEN-EYE



SUNRAY



BRITTLE-BUSH

This low shrub looks very similar to the Rayless Encelia, and the two are sometimes found growing in the same area. It grows to a height of 30-60 cm (1-2 feet). The lower stem leaves are opposite, strongly toothed, heavy veined, with edges rolled under. The medium-sized flower heads are numerous, growing on the tips of long, slender stems, either solitary or in small flat-topped clusters. It prefers open gravelly slopes and blooms in late summer and early fall. It is common in higher elevations, being especially abundant near Christmas Tree Pass in the Newberry Mountains.

Golden-Eye • +
(Nevada Viguiera, Resin Weed)

Viguiera deltoidea

SUNFLOWER FAMILY

Sunray is one of the most impressive members of the sunflower family to be found in this desert. The large flowers, as much as 15 cm (six inches) across and on leafless stems, rise a foot or more above basal tufts of large, silvery-gray leaves. The leaves are rather thick, smooth, covered with a fine down, and feel similar to felt. Partial to eroded soils containing gypsum, it is especially noticeable along the North Shore Road from Las Vegas Wash to Overton, and in the Kingman Wash and Donelli Landing areas. A closely related variety, almost identical in appearance, is the Panamint daisy found in Death Valley National Monument.

Sunray

Encelopsis argophylla

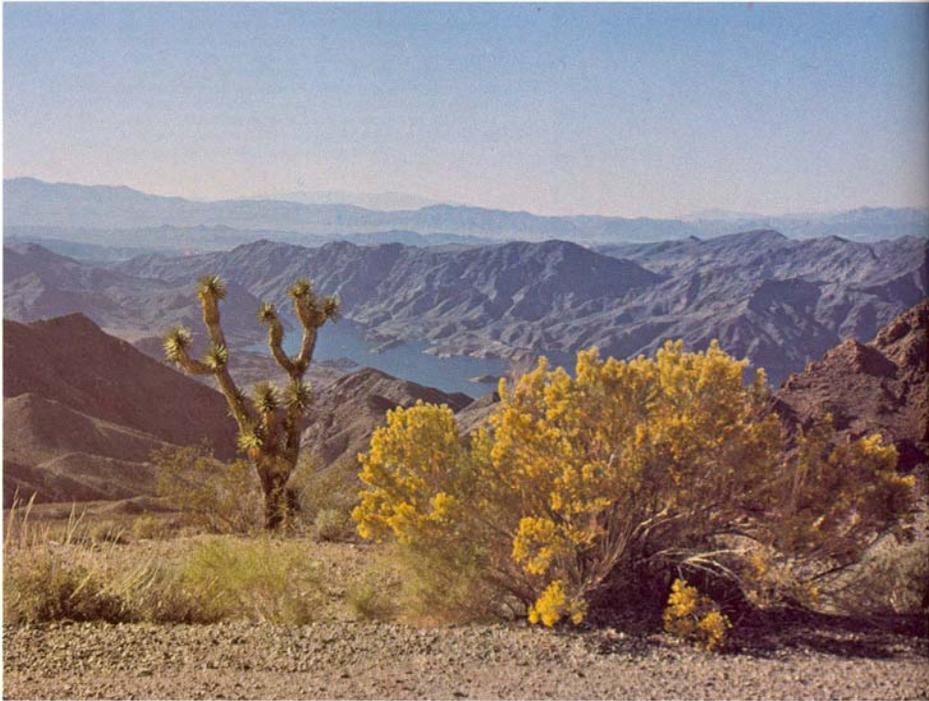
SUNFLOWER FAMILY

Flowering seven months of the year, it exhibits all the characteristics of a well-adapted desert shrub. The plant stands as much as 1 m (three feet) tall and is covered with numerous large, silvery leaves. During periods of high temperatures the leaves may dry and fall away, leaving only naked stems. These stems were dried and burned as incense in the missions by early Spanish padres. Able to survive in the most extreme localities, it is commonly found on barren, south facing slopes and around rocky areas throughout the region.

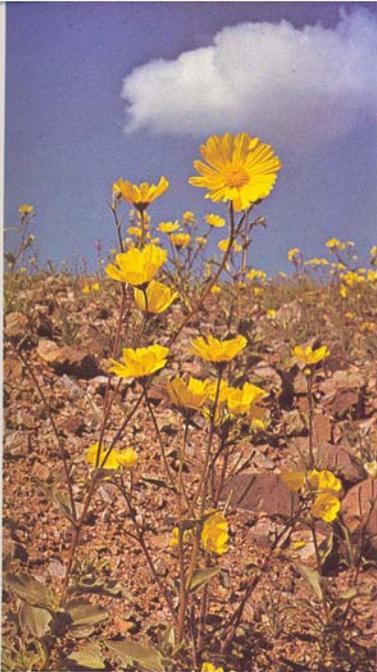
Brittle-Bush • +
(Incienso, Incense Bush)

Encelia farinosa

SUNFLOWER FAMILY



38



DESERT-SUNFLOWER

This shrub is 1 m (three feet) or more in height, and composed of a large number of stems. Leaves are gray-green and very bitter to the taste. The plant may become leafless during high summer temperatures to reduce moisture loss from transpiration. Flowers are small but numerous, giving ends of the branches a rich yellow cast. The rayless flowers are borne in clusters. In spite of its name of "nauseosus" the plant has a pleasant odor. The blooming of rabbit-brush heralds the approach of fall. It is commonly found in washes and around slopes. Several other species of rabbit-brush, somewhat similar in appearance to this one, are found in the region.

Rabbit-Brush.+

Chrysothamnus nauseosus

SUNFLOWER FAMILY

These plants often form vast gardens of color on sandy desert basins and along roadsides. Even when there isn't much rainfall in the cooler months to furnish needed moisture, these annuals seem to bloom anyway. Flowers begin to show as early as February in lower elevations and continue through May. Occasionally conditions are right for another flower season in early fall. It is large and showy with many short white hairs on leaves and stem, stands about 60 cm (2 feet) high, and is common throughout the area. Many small rodents use the seeds as part of their diet.

Desert-Sunflower.+ (Desert Gold)

Geraea canescens

SUNFLOWER FAMILY

**Rayless
Encelia •+**

*Encelia
trutescens*
SUNFLOWER
FAMILY

This rounded, much branched shrub is similar in appearance to its relatives, the encelia and brittle-bush. Its leaves are green, without any coating, and are scattered along the whitish stems. The plant has only disk flowers. It prefers dry slopes and desert flats in the Creosote-bush Community. Commonly found at elevations up to 1 219 m (4,000 feet), it is especially noticeable in the Newberry Mountains near Davis Dam.



RAYLESS ENCELIA

Encelia •+

*Encelia
virginensis*
SUNFLOWER
FAMILY

This shrubby plant closely resembles the rayless encelia, but differs in that a coating of fine, grayish-white hairs cover its green leaves, a feature lacking in the other. Each flower stalk bears a single head, having both ray and disk flowers. It grows on the banks of rocky washes and ridges in middle and higher elevations of the desert. It may bloom during both spring and fall months. It produces quantities of seeds which are stored and eaten by small rodents. Some Indian tribes boiled the leaves and flowers and used the brew as a wash to relieve rheumatism.



ENCELIA

Sweetbush •+
(Chuckwalla's Delight)

*Bebbia
juncea*
SUNFLOWER
FAMILY

Leafless most of the year, this shrub is well adapted to the desert. The rounded plant often reaches a diameter of 1.2-1.5 m (4-5 feet). Stems are numerous and rough to the touch. The flowers are small, but numerous, in the late spring. When conditions are right it may bloom again in the fall. It is common in the broad sand and gravel washes. As the common name indicates, it is a favorite food for the chuckwalla lizard. It is also eaten by bighorn and visited extensively by bees.



SWEEBUSH



PAPER-FLOWER



ROCK DAISY



WOOLLY-DAISY



DESERT-MARIGOLD

Often producing the "yellow lining" along the roadsides, it blooms throughout much of the year. The flowers, one to each stem, are 2.5 cm (an inch) in diameter and positioned at the ends of leafless stems. The stem bases are somewhat woody, the leaves mostly basal and downy.

It prefers well drained, rocky or gravelly slopes and is abundant in disturbed soil along road shoulders throughout the region. It produces large numbers of seeds, an important food for small desert rodents.

**Desert-
Marigold •+**
(Wild Marigold)

*Baileya
multiradiata*
SUNFLOWER
FAMILY

This is a fragile, gland-covered annual with a strong scent when crushed. The leaves are large and showy, with a cool-clammy texture. Flowers are small and not especially noticeable. The roots are strategically placed under large boulders, tapping the moisture captured there. Because of its preferred habitat, it is properly named. It is found among boulders of steep talus slopes and around the base of cliffs during the period from April to June, although it may also become abundant in early fall if sufficient moisture is available.

**Rock
Daisy •+**

*Perityle
Emoryi*
SUNFLOWER
FAMILY

This short, rounded shrub stands 30-45 cm (12-18 inches) high and is woody only at the base. It has many stems covered with a white woolly down and simple undivided leaves 2.5-7.5 cm (1-3 inches) in length. In a strong breeze the rustling of dried flowers resembles the warning sound of a rattlesnake, somewhat disconcerting to the hiker! The plant prefers sandy and gravelly areas in low to middle elevations. While it blooms in the spring months, it may have a second flowering in early fall if there have been sufficient late summer rains.

**Paper-
Flower •+**

*Psilostrophe
Cooperi*
SUNFLOWER
FAMILY

Another small annual which can be classified as a "belly flower," it is less than 5 cm (two inches) tall and is covered with numerous soft hairs. A single plant may produce as many as a dozen or more flower heads. These plants may become abundant, producing a fluffy carpet following periods of above average rainfall. They grow in rocky soils and broad gravel and sandy washes. Flowering season is April and May. Although small, the flowers produce quantities of seeds which are eaten by small rodents. A closely related species found in the same region, differing mainly in having white flowers, is the woolly eriophyllum.

**Woolly-
Daisy •+**
(Wallace Eriophyllum)

*Eriophyllum
Wallacei*
SUNFLOWER
FAMILY

Yellow-Head +
(Yellow Pincushion)
Trichoptilium incisum
SUNFLOWER FAMILY

If sufficient moisture is available at the right times, this aromatic annual may bloom between March and May and again late in September and October. The round, ball-like flower head is made up of numerous small, tube-shaped flowers. These heads are borne on slender, reddish stems 7.5-10 cm (3-4 inches) in length. It is a low-growing plant with the stem and toothed leaves covered by hairlike wool. It grows best in open areas of desert pavement in the Creosote-bush Community.

Chinch-Weed +
Pectis papposa
SUNFLOWER FAMILY

This fall flowering annual is a conspicuous feature of the desert's autumn color. It possesses a strong, but pleasant, odor associated with the small, dark-covered glands at the base of the flower and on some of the leaves. Following adequate summer rains, it may provide a yellow hue to blend in with the desert browns and greens. Look for this plant in September and October throughout low to middle elevations of the region.

Desert-Fir +
(Pigmy-Cedar, Sprucebush)
Peucephyllum Schottii
SUNFLOWER FAMILY

This shrub received its several names because its vivid green, needle-like leaves and general shape give superficial resemblance to a cone-bearing tree. In reality, its flowers reveal membership in the sunflower family. It may attain a height of 1.5 m (five feet), but is usually smaller. The resinous leaves give an aromatic fragrance when crushed. It is found along steep rocky slopes and in many dry washes. It is especially numerous in the Black Canyon area, and blooms from early spring to May.

Turtleback +
(Desert-Rosette)
Psathyrotes ramosissima
SUNFLOWER FAMILY

The growth form resembles the back of a turtle, hence the common name. It is a very compact plant, with thick, gray-green, wrinkled leaves that are covered with numerous hairs. Crushed leaves have a strong turpentine odor. Stems are very brittle. The flowers are small and rather inconspicuous. It prefers gravelly areas, especially where the soil has been disturbed along roadsides. It is common in the Las Vegas Wash area along the North Shore Road.



CHINCH-WEED



PARRY TACK-STEM



YELLOW-HEAD



DESERT-DANDELION

42



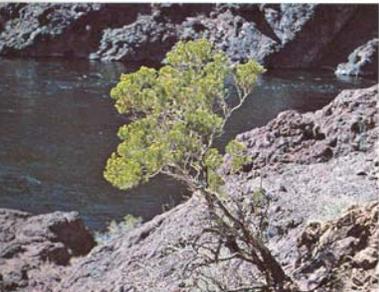
TURTLEBACK



YELLOW SAUCERS



GROUNDSEL



DESERT-FIR

This plant may grow as much as 1 m (three feet) high. The stems are somewhat woody at the base, erect, bearing thread-like leaves and large showy flowers. The flowers frequently have an unusually long blooming season. While the season is usually from March to May, a second period may occur in the fall. It occurs most often in the desert washes in Joshua forests and low mountain ranges.

Groundsel +
(Sand-wash Groundsel)
Senecio Douglasii
SUNFLOWER FAMILY

This colorful annual grows up to 30 cm (a foot) in height. The large, deeply lobed leaves are mostly basal, with a few smaller leaves along the stems. The flower heads are fragrant and several may be found on one plant. It is closely related to the desert-dandelion. Although the two plants are very similar, they are usually not found growing together. It is in sandy areas that yellow saucers have become adapted and are quite common in some years. An abundance of seeds is produced, and these are much relished by small rodents and seed-eating birds.

Yellow Saucers +
Malacothrix sonchoides
SUNFLOWER FAMILY

The flower heads of this plant look very much like the familiar dandelion so common in lawns, with one difference—the center of the desert variety has a small reddish "button." Depending on rainfall, it may produce numerous blossoms or just a few. It grows in open areas and on rolling hills. In good flower years the desert is carpeted in many areas with these colorful creations. Its green leaves furnish food for several kinds of wildlife, and the flower heads are eagerly eaten by the desert tortoise.

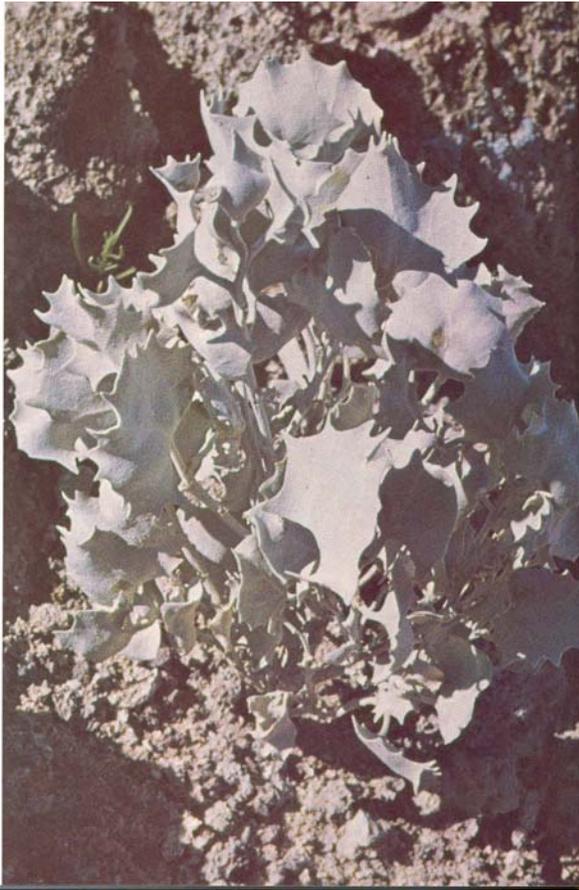
Desert-Dandelion +
Malacothrix glabrata
SUNFLOWER FAMILY

Two closely related tack-stems occur in the Lake Mead region (see White Tack-Stem). The only noticeable difference is in flower color. The white variety is the more common of the two. Like its white cousin, the yellow receives its name from the small but numerous dark, tack-shaped glands which cover the upper portions of the stem. It is found on open gravelly areas and rolling hills.

Parry Tack-Stem +
(Yellow Tack-Stem)
Calycoseris Parryi
SUNFLOWER FAMILY

43

plants with
flowers very
inconspicuous
or apparently
absent



44



MORMON TEA

Sometimes called "joint-fir" because of its jointed stems, this plant is closely related to the pines, cycads and ginkgos. The stems bear scale-like leaves and develop small yellowish cones at joints on the stem. It grows best in washes and on higher desert slopes. It was commonly used by Indians as a brew and a medicine, and later by Mormon pioneers as a refreshing tea. The brew is somewhat laxative. The plant contains a high concentration of tannin, which helps explain its early use as a medicinal tonic and poultice. Its small black seeds were roasted and eaten. Birds and small mammals, especially antelope ground squirrels, harvest them in great quantity.

**Mormon
Tea** •+
(Desert Tea,
Mexican Tea)

*Ephedra
nevadensis*

JOINT-FIR
FAMILY



DESERT MISTLETOE

The mistletoe is a parasite, that is, it survives at the expense of its host. Large clumps are commonly found growing on honey mesquite and catclaw, but may sometimes be found on creosote-bush, paloverde, and saltcedar. Branches of these plants may suffer from over-infestation by the parasite. The flowers are fragrant and obscure. Red berries appear during summer and remain into the fall. Birds, such as the phainopepla, bluebird, and Gambel's quail are particularly attracted to the berries as a food source and, consequently, assist in seed dispersal. The juicy pulp of the berries helps supply water as well as food for wildlife during dry summer months.

**Desert
Mistletoe** •+

*Phoradendron
californicum*

MISTLETOE
FAMILY

This silvery shrub is another desert plant found growing on gypsum rich soil. Leaves are thick, somewhat leathery to the touch, and covered with a velvety down. Later in summer the leaves take on a pinkish tinge and many tend to drop off, especially if rainfall is unusually sparse. Flowers are inconspicuous and wind pollinated, thus easy to miss. The seeds are flat, papery and rounded, about the size of oatmeal flakes. In some parts of the desert this plant has been collected until it is quite rare. The silvery leaves make it a desirable Christmas decoration and quantities have been sold for that purpose. It is now protected against such practices. It is commonly seen along the North Shore Road.

**Desert-
Holly** •+

*Atriplex
hymenelytra*

GOOSE-FOOT
FAMILY

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