

SAXIFRAGACEAE -- Saxifrage Family



Scientific Name:
Heuchera parvifolia

Size:
20 - 60 cm

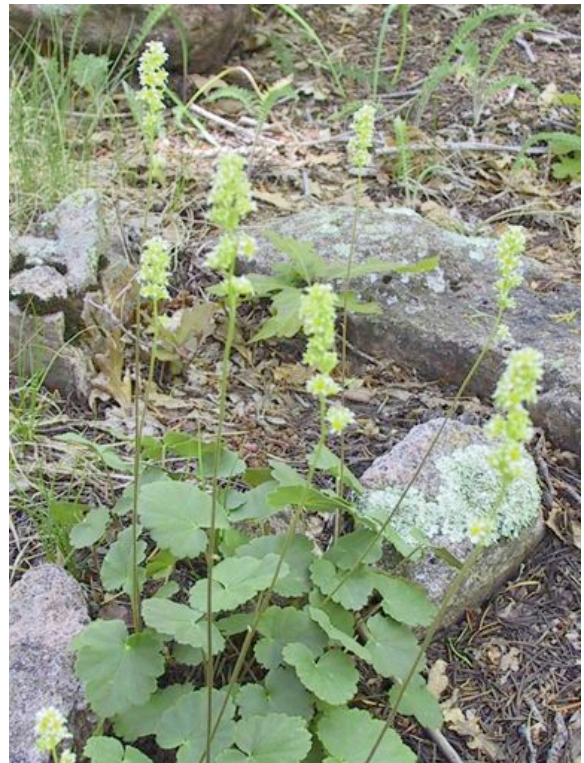
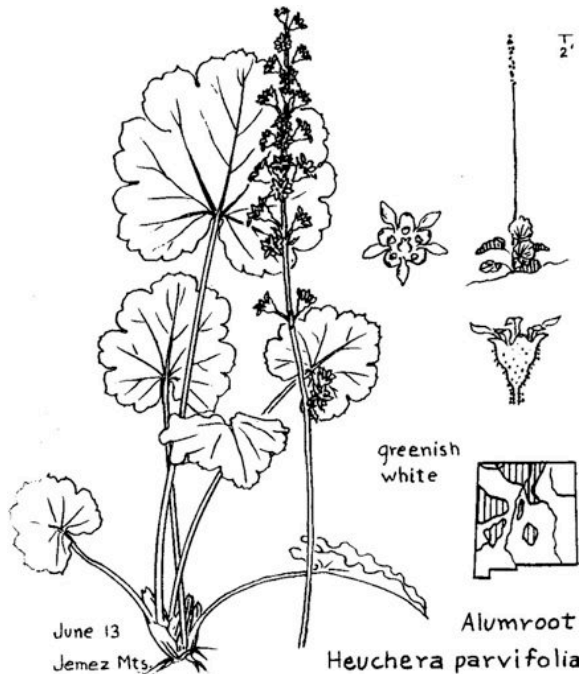
Description:
Stemless perennial herb. Leaves basal. Petioles 2 - 12 cm long, with gland-tipped hairs of unequal length. Leaf blade kidney-shaped to heart-shaped 10 - 55 mm long, 15 - 65 mm wide, 5 - 9 lobed, with wavy-toothed margins, mostly glabrous. Floral stalks leafless, 20 - 60 cm long, with gland-tipped hairs. Flowers solitary or in groups of 3 from axils of lanceolate bracts scattered along top of floral stalk. Floral cup glandular, top-shaped, 2 - 4 mm long, topped by 5 triangular sepals about 1 mm long, with stalked glands. Petals 5, between sepals, oblanceolate about 2 mm long, narrowed at base. Stamens 5, sometimes malformed, short. Styles 2. Fruit a 1-beaked capsule 4 - 7 mm long.

Common Name:
Alumroot

Color:
Greenish white

Notes:
The genus *Heuchera* was named by Carl Linneaus for Johann Heinrich von Heucher (1677-1747), a German physician and professor of medicine, who actually seems to have had nothing to do with these strictly North American plants. Plants of this genus are well adapted for life on cliffs, often growing beautifully from a soil-free crack. Alumroot blooms from May through August between 7000 and 10000 ft.

New Mexico Native



SAXIFRAGACEAE -- Saxifrage Family



Scientific Name:
Heuchera pulchella

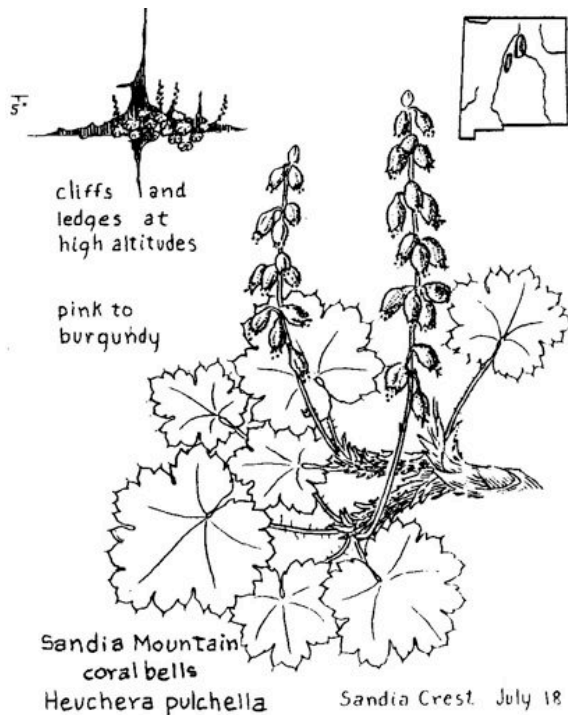
Common Name:
Sandia alumroot

Size:
10 - 20 cm

Color:
Pink

Description:
Stemless perennial herb. Leaves basal on hairy petioles 3 - 6 cm long, blades broadly oval to round or heart-shaped, palmately 3 - 7 lobed with broadly toothed margins, glabrous above, with gland-tipped hairs below. Floral stalks leafless, 10 - 20 cm long, with gland-tipped hairs. Flowers 15 or more, on short curved stalks scattered along one side of the top of the main floral stalk. Floral cup with dense gland-tipped hairs, bell-shaped, purplish-pink, topped by 5 sepal lobes 1 - 2 mm long. Petals 5, lanceolate, very narrow at the base, longer than sepals. Stamens 5, equal to or longer than sepals. Styles not much protruding, stigmas 2.

Notes:
Sandia alumroot has been identified as a rare plant by the New Mexico Rare Plant Technical Council. Its range is apparently restricted to the Sandia and Manzano Mountains. Like all alum roots, this plant's roots contain tannins with a bitter taste that makes the mouth pucker as would alum. Sandia alumroot blooms from July into September between 7000 and 10000 ft.



New Mexico Native



SAXIFRAGACEAE -- Saxifrage Family

Scientific Name:
Saxifraga bronchialis

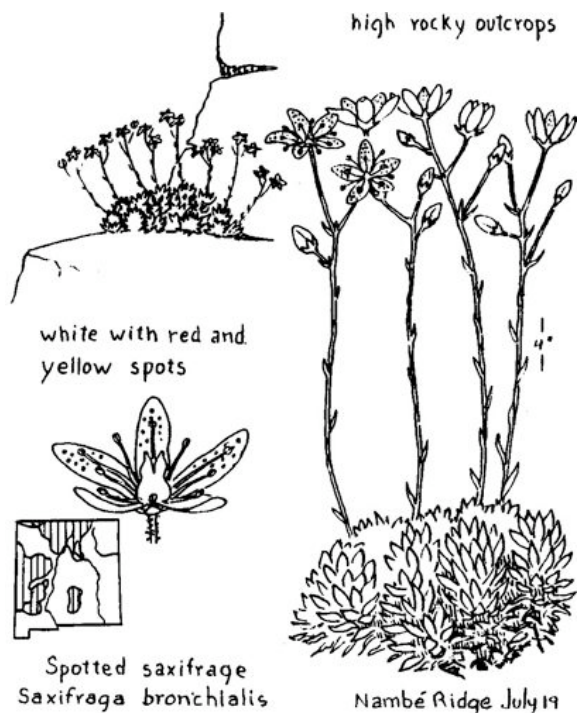
Size:
3 - 15 cm

Description:
Perennial herb forming a mat, root covered with persistent, papery leaves. Leaves crowded and overlapping at base of flowering stalks, sessile, rigid, 4 - 12 mm long, 1 - 3 mm wide, narrowly lanceolate, spine-tipped, glabrous, with smooth but hairy edges. Stem leaves similar, alternate, few, scattered, 2 - 6 mm long. Flowers perfect, in loose, branched clusters at top of flowering stalk 3 - 15 cm long. Sepals 5, triangular to ovate, 2 - 3 mm long, mostly glabrous. Petals 5, spreading, narrowly ovate to elliptic, 3 - 6 mm long, 3-nerved, spotted. Stamens 10 mostly shorter than petals, filaments 4 - 5 mm long. Styles 2, free. Fruit a 2-beaked capsule 4 - 6 mm long.

Common Name:
Spotted saxifrage

Color:
White

Notes:
The genus name *Saxifraga* comes from the Latin *saxum*, "rock" and *frango*, "to break". Early herbalists felt that saxifrages were useful for breaking up stones in the kidneys and urinary tract. In a modern context, the tendency of the plants to occupy cracks in rocks, may make it appear that the plants cracked the rock. The species name *bronchialis* refers to the branched flower clusters. Spotted saxifrage can form broad mats with many beautiful, delicate, spotted flowers. It blooms from mid-June through August between 7000 and 10000 ft.



New Mexico Native



SCROPHULARIACEAE -- Figwort Family



Scientific Name:

Castilleja integra

Size:

10 - 30 cm

Description:

Erect to ascending hemiparasitic perennial herb, stems often several. Herbage whitish with short to long woolly hairs. Leaves alternate, sessile, linear to narrowly lanceolate, 2 - 6 cm long, often folded, margins smooth. Leaves changing to bracts above. Flowers sessile, dense on upper stem, each subtended by a red to orange bract. Bracts broadly rounded, sometimes with 2 lobes near the top, with long hairs and gland-tipped hairs. Calyx tubular, yellowish becoming red and glandular towards top, symmetrically cleft into 4 lobes. Corolla green, 25 - 30 mm long, protruding, 2-lipped, the upper long, arching, enclosing the 4 stamens, the lower lip very short, 3-lobed.

Common Name:

Foothills paintbrush

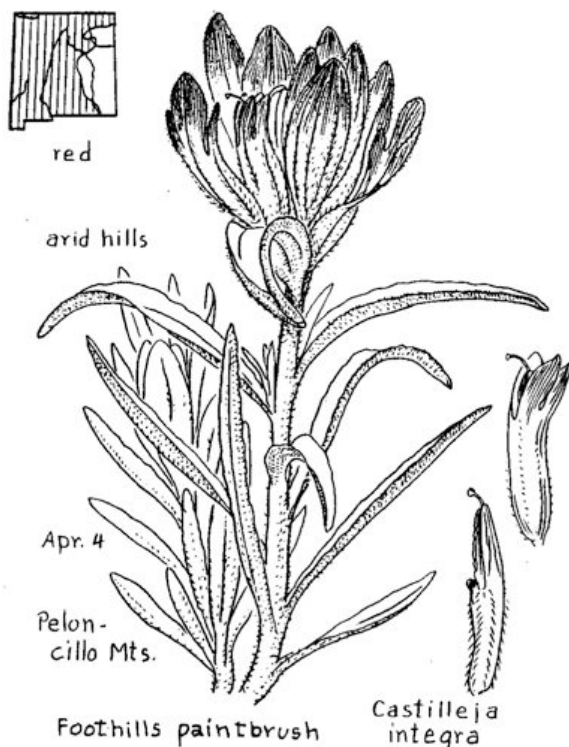
Color:

Red, rarely yellow

Notes:

Plants of the genus *Castilleja* are hemiparasites, that is, plants which contain chlorophyll and photosynthesize food, but also tap into the roots of other plants to obtain moisture and extra nutrients. Typically in the Manzanos, they parasitize oaks and grasses. The actual flower is green. The colorful parts of paintbrushes are the leaf-like bracts below each flower and the flower calyx which holds the flower. Foothills paintbrush blooms from June into August between 5000 and 10000 ft.

New Mexico Native



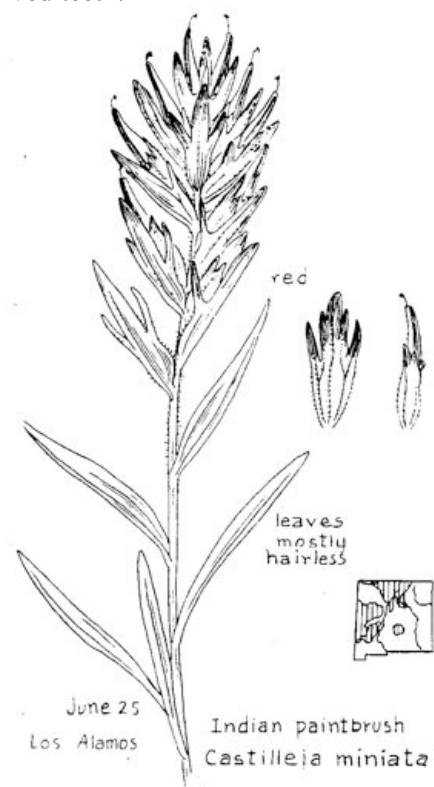
SCROPHULARIACEAE -- Figwort Family

Scientific Name:
Castilleja miniata

Size:
25 - 70 cm

Description:

Ascending to erect hemiparasitic perennial herb, stems few to several, often branched. Herbage glabrous or with short, straight hairs, particularly above. Leaves alternate, sessile, with smooth edges, linear or narrowly lanceolate 3 – 7 cm long, the uppermost often 3-lobed. Flowers sessile, dense on upper stem, each subtended by a red, lanceolate, hairy, bract with 1 or 2 pairs of lateral lobes. Calyx 20 – 30 mm long, hairy, tubular, with 4 linear to lanceolate lobes cleft more deeply in front than in back. Corolla green, 25 – 44 mm long, protruding, 2-lipped, the upper long, arching, enclosing the 4 stamens, the lower small with incurved teeth.



Common Name:
Scarlet paintbrush

Color:
Red

Notes:

Like other paintbrushes, scarlet paintbrush is hemiparasitic (see *Castilleja integra*). This paintbrush is recognizable by the fact that the upper leaves and flower bracts are often dissected into narrow lobes. The species name *miniata* literally translates from Latin as “painted with red lead”, in reference to the brilliant color of the floral bracts. Scarlet paintbrush blooms from June into September between 7500 and 11000 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family



Scientific Name:
Cordylanthus wrightii

Size:
10 - 35 cm

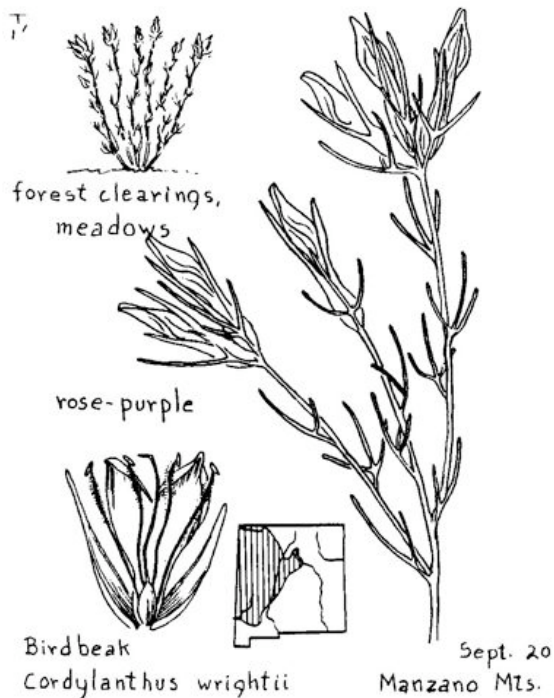
Description:
Erect hemiparasitic perennial herb, stems solitary, branched. Herbage with gland-tipped hairs or mostly glabrous. Leaves alternate, 1 - 3 cm long, pinnately or palmately divided into 3 - 5 thread-like segments. Flowers 2 - 8, sessile, in dense clusters at branch ends, each cluster subtended by 1 or more leaf-like bracts 10 - 25 mm long. Each flower subtended by 1 narrowly lanceolate, green bract 15 - 25 mm long. Calyx green, 15 - 20 mm long, split to the base inside forming a lanceolate sheath shallowly 2-lobed at the top. Corolla 16 - 24 mm long, tubular, with 2 lips, these often folded together, the upper somewhat arched, enfolding the 4 hairy stamens, the lower almost equal, swollen.

Common Name:
Birdbeak, clubflower

Color:
Lavender

Notes:
The genus name *Cordylanthus* comes from the Greek *kordyle*, "club" and *anthos*, "flower" in reference to the club-like appearance of the asymmetrical flower. The genus has 20 species native to the western United States. New Mexico has 3 varieties and the Manzanos one. The plants are hemiparasitic (see *Castilleja integra*) on at least 8 other plants. Birdbeak blooms from mid-July into September between 5000 and 7500 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family



Scientific Name:

Mimulus glabratus

Size:

10 - 50 cm

Description:

Reclining to ascending perennial herb, stems rooting at lower leaf nodes. Herbage mostly glabrous. Leaves opposite, on petioles below, sessile above, broadly ovate to round, 12 - 25 mm long, with 3 - 5 veins all originating from the base, leaf margins toothed, wavy or smooth. Flowers solitary in both axils of upper leaf pairs, on stalks 15 - 30 mm long. Calyx bell-shaped, 5 - 12 mm long, 5-angled, pleated, 5-lobed, the 4 lateral lobes extremely short. Corolla tubular, 1 - 2 cm long, strongly 2-lipped, the upper 2-lobed, bent backwards, the lower 3-lobed, bent down, the central lobe with 2 hairy ridges, but not closing the throat.

Common Name:

Smooth monkey-flower

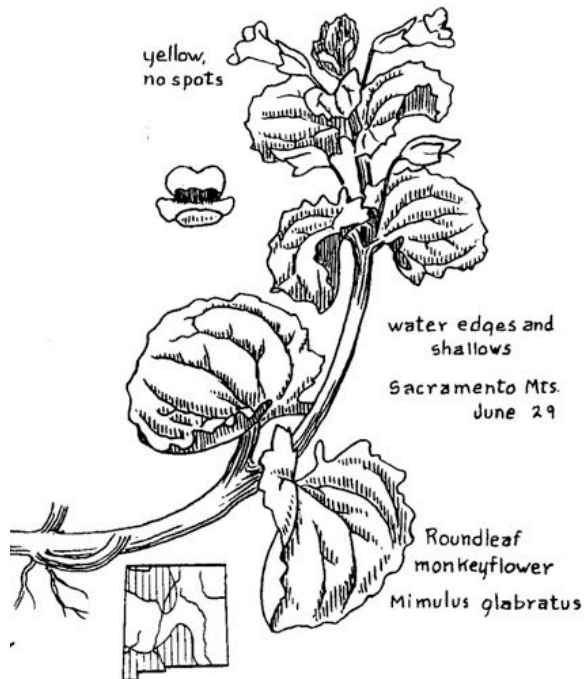
Color:

Yellow

Notes:

The genus name *Mimulus* comes from the Latin *mimus*, "mimic" with the diminutive ending, *-lus*, thus meaning "little mimic", probably because the flower "mimics" the face of a monkey. Monkey-flowers are typically water loving, often growing directly in water, but there are certainly xeric species. The stems of smooth monkey-flowers tend to lie on the ground and root from the lower parts, forming dense patches. The flowers bloom from May into July between 4000 and 7500 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family



Scientific Name:

Mimulus guttatus

Size:

5 - 50 cm

Description:

Annual or perennial herb, stems stout or slender, hollow, erect or reclining, simple or branched. Herbage with short hairs or almost glabrous. Leaves opposite, on petioles below, sessile above, broadly ovate or obovate to round, 2 - 5 cm long, 1 - 4 cm wide, with irregularly toothed edges. Flowers on stalks 1 - 3 cm long loosely clustered at top of stem with leaf-like bracts. Calyx bell-shaped, 6 - 16 mm long, 5-angled, pleated, with 5 triangular lobes, one much larger than the rest. Corolla tubular, 1 - 2 cm long, spotted with red, strongly 2-lipped, the upper 2-lobed, bent backwards, the lower 3-lobed, bent down, the central lobe with 2 hairy, swollen ridges closing the throat.

Common Name:

Common monkey-flower

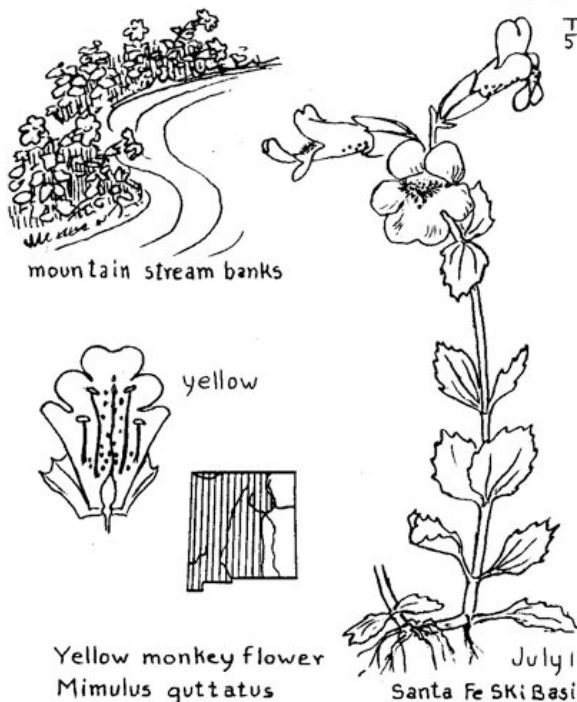
Color:

Yellow with red spots

Notes:

The species name *guttatus* means spotted. The flower and its supporting cup are commonly spotted with red. The flower's ovary is attached to a stalk tipped with a pair of flat scales (stigmas) to gather pollen. If touched, the scales visibly fold together. When a bee enters the flower, it contacts the stigmas first, depositing foreign pollen. The stigmas then close preventing the flower's own pollen from contacting them as the bee goes deeper into the flower, thus avoiding self-pollination. Monkey-flowers bloom from June into August between 5000 and 10000 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family



Scientific Name:
Orthocarpus luteus

Size:
10 - 30 cm

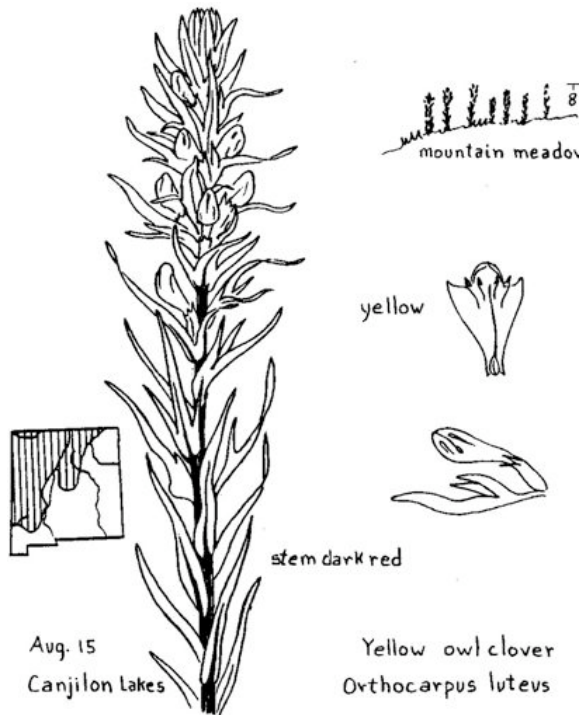
Description:
Erect hemiparasitic annual herb, stems unbranched, with gland-tipped hairs and longer non-glandular hairs. Leaves alternate, sessile, linear to linear-lanceolate, 1 - 4 cm long, with gland-tipped hairs, margins smooth below, becoming bract-like and 3-lobed above. Flowers in a dense cluster along upper stem, mixed with 3- to 5-cleft bracts 10 - 15 mm long. Calyx tubular, 5 - 8 mm long, unequally cleft into 4 lobes. Corolla tubular, 9 - 12 mm long, with short hairs, 2-lipped, the upper hooded, erect and straight, beak-like, 2.5 - 4 mm long, the lobes united enclosing the 4 stamens, the lower as long as the upper, puffed outward, sack-like, minutely 3-toothed.

Common Name:
Yellow owl-clover

Color:
Yellow

Notes:
The genus name *Orthocarpus* comes from the Greek *orthos*, "straight" and *Karpus*, "fruit", in reference to the symmetrical, unbent, ellipsoidal fruit, which was used by early nineteenth century botanists to distinguish owl-clover from other genera. The species name *luteus* is Latin for "bright yellow". The common name is seemingly related to the rather obscure perception that the oddly shaped flower nestled in its bracts resembles an owl nestled in the branches of a tree. Yellow owl-clover is hemiparasitic (see *Castilleja integra*). It blooms in July and August between 6000 and 9500 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family

Scientific Name:

Pedicularis centranthera

Size:

4 - 7 cm

Description:

Erect hemiparasitic perennial herb, stems unbranched. Herbage glabrous. Leaves exceeding stems, alternate, the lowest thin, sessile, linear, with smooth edges, the upper on petioles, pinnatifid, 6 - 15 cm long, segments ovate, edges doubly toothed, crinkly. Flowers on stalks 1 - 4 mm long, in a dense cluster at stem end, the cluster subtended by leaf-like bracts and individual flowers subtended by a reduced bract. Calyx tubular, 15 - 20 mm long, with 5 unequal lobes 6 - 9 mm long with hairy margins. Corolla tubular, strongly 2-lipped, the upper curved, hooded, 10 - 18 mm long, enclosing the 4 stamens, the lower 9 - 15 mm long, with 3 broadly rounded lobes.

Common Name:

Dwarf lousewort

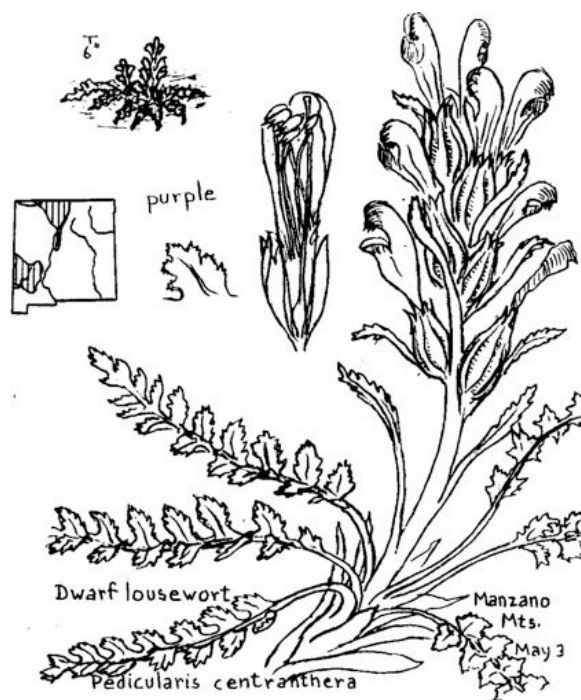
Color:

Purple

Notes:

The genus name *Pedicularis* comes from the Latin *pediculus*, "little louse", in reference to an old superstition that animals consuming the plant would become infested with lice. The common name combines louse with the Middle English ending *-wort*, "plant". The species name *centranthera* comes from the Greek prefix *centr-*, "spurred" and *anthera*, "anthers". The anthers at the top of the stamens taper to a sharp point on one end. Dwarf lousewort is hemiparasitic (see *Castilleja integra*). It blooms from late March into June between 6000 and 9000 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family

Scientific Name:

Pedicularis procera

Size:

50 - 120 cm

Description:

Synonym: *Pedicularis grayi*.

Erect hemiparasitic perennial herb, stems stout. Herbage glabrous. Stem leaves alternate, 15 - 30 cm long, upper leaves on short petioles, pinnatifid, with toothed segments, becoming bi-pinnatifid below; basal leaves on long petioles, bi-pinnatifid with toothed margins. Flowers in a dense hairy, cylindrical cluster 10 - 35 cm long, interspersed with linear, smooth-edged bracts. Calyx 10 - 12 mm long with 5 linear lobes 3 - 5 mm long. Corolla tubular 25 - 36 mm long, strongly 2-lipped, the upper curved, hooded, 9 - 16 mm long, enclosing the 4 stamens, the lower bent downward, 7 - 12 mm long, with 3 broadly rounded lobes with wavy margins.

Common Name:

Gray's lousewort, fernleaf lousewort

Color:

Pale yellow with red streaks

Notes:

The species name *procera* is Latin for "very tall". The scientific name *Pedicularis procera* was assigned by Asa Gray in 1862. Gray cited a publication by the Finnish/Crimean botanist Christian von Steven (1781 - 1863) in 1823 of a specimen from the Russian botanist Michael Friedrich Adams (1780 - 1832). In 1904, Aven Nelson of the University of Wyoming changed the name to *P. grayi*, arguing that Adams had given Steven a "very tall" *Pedicularis*, but had not seriously suggested *procera* as a species name. In recent times, the return to the use of original citations has reestablished Gray's original name. *P. procera* blooms in July and August between 7000 and 10000 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family



Scientific Name:

Penstemon barbatus ssp. *torreyi*

Common Name:

Scarlet penstemon

Size:

30 - 100 cm

Color:

Red

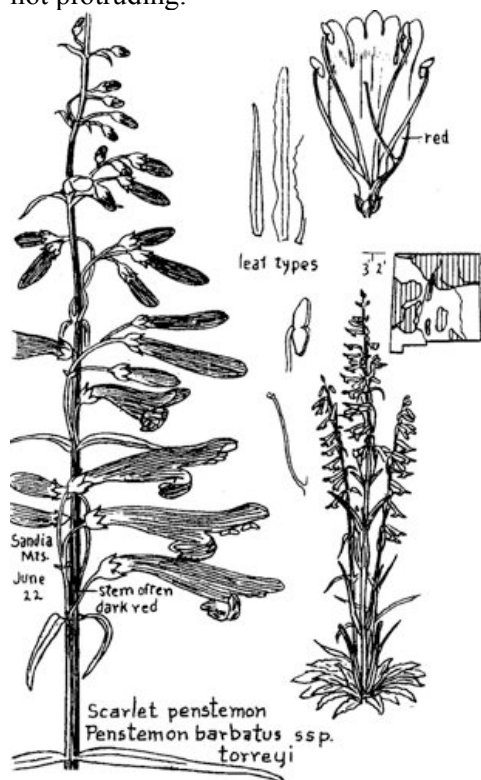
Description:

Ascending to erect perennial herb, stems 1 to few. Herbage mostly glabrous. Basal and lower stem leaves 3 - 8 cm long, 12 - 25 mm wide, oblanceolate, smooth-edged, with petioles. Upper stem leaves opposite, pairs widely spaced, linear, 3 - 8 cm long, 1 - 8 mm wide, sessile. Flowers 1 - 4 from each axil of upper leaf pairs, on slender ascending stalks. Calyx 4 - 6 mm long, with 5 lanceolate to ovate segments. Corolla tubular 26 - 32 mm long, strongly 2-lipped, the upper straight, 2-lobed, the lower bent backwards, 3-lobed. Lower tube throat glabrous or with a few white hairs. Fertile stamens 4, protruding. Sterile staminode not protruding.

Notes:

Penstemon is a large and complicated genus of about 250 species ranging from Alaska to Central America. *Penstemon* and *Erigeron* tie as the third largest genera in New Mexico with 42 separate species (behind *Astragalus* with 72 species and *Carex* with 63). The species name *barbatus* is Latin for "bearded", referring to the commonly hairy throats of the flowers. Like many red-flowered species, Scarlet penstemon is a hummingbird favorite. It blooms in June and July between 6000 and 9000 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family



Scientific Name:
Penstemon fendleri

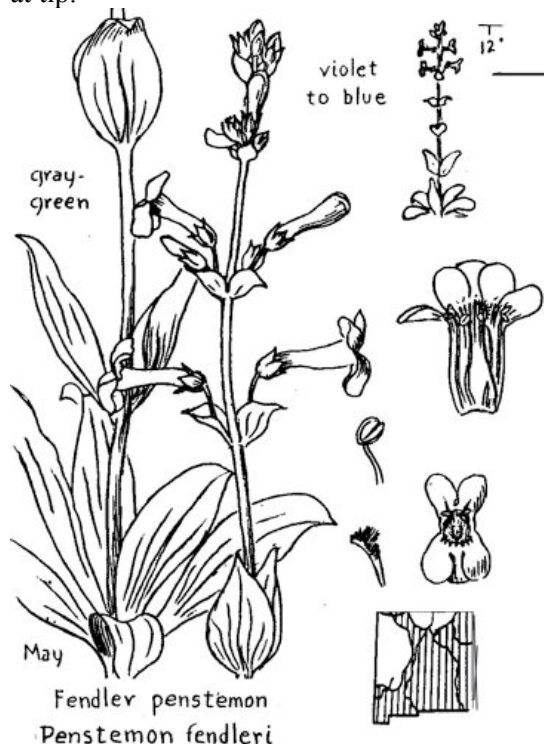
Common Name:
Fendler penstemon

Size:
20 - 50 cm

Color:
Violet to blue

Description:
Erect perennial herb, stems few. Herbage glabrous, with a waxy coating. Basal leaves thick, smooth-edged, lanceolate to elliptic, on short petioles. Stem leaves opposite thick, smooth-edged, lanceolate, sessile or bases somewhat wrapping the stem, reduced upward, changing to bracts above. Flowers 1 - 3, on short stalks, from axils of bracts, forming whorls. Calyx 4 - 7 mm long, with 5 ovate lobes with papery margins. Corolla tubular, 15 - 25 mm long, 2-lipped, the upper 2-lobed, bent backwards, the lower 3-lobed, bent backwards, the tube narrow, with purple lines in the throat. Fertile stamens 4, not protruding, anthers not hairy. Sterile staminode densely yellow, hairy at tip.

Notes:
Fendler penstemon is a tough, hardy plant. It is superbly adapted for arid conditions with its thick, waxy, almost succulent leaves. It occurs in the dry plains flanking the Manzanos, particularly to the south. The floral tube of the Fendler penstemon is narrow with little inflation, unlike the other penstemons in the area. Blooming occurs from late April into June between 5000 and 8000 ft.



New Mexico Native



SCROPHULARIACEAE -- Figwort Family



Scientific Name:
Penstemon inflatus

Size:
10 - 60 cm

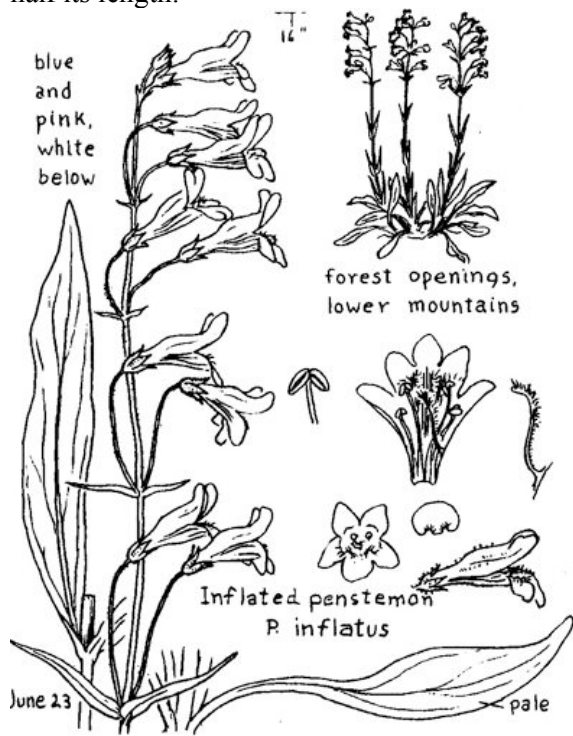
Description:
Erect perennial herb, stems 1 to several, microscopically hairy. Leaves glabrous, slightly waxy; basal and lower stem leaves on petioles to 3 cm, lanceolate, 3 - 8 cm long, 5 - 18 mm wide; stem leaves opposite, sessile, narrowly lanceolate to linear 2 - 9 cm long. Flowers in clusters of 2 - 4, each cluster on a stalk subtended by a linear bract, the bracts in opposite pairs on upper stem. Calyx 3 - 10 mm long, with 5 lanceolate lobes, somewhat glandular. Corolla tubular, 17 - 27 mm long, 2-lipped, the upper deeply 2-lobed, bent back, the lower distinctly 3-lobed, bent back. Stamens 4, included. Sterile staminode yellow hairy for half its length.

Common Name:
Inflated penstemon

Color:
Blue with white

Notes:
This slender and graceful penstemon is common in the Manzanos. It is the only blue, white-throated penstemon in Central New Mexico. Its range extends from the Manzano and Sandia Mountains through the Sangre de Cristo range to the Colorado border. Two closely related sister species are rare and have very restricted ranges, *P. oliganthus* only around Mt. Taylor and *P. pseudoparvus* only in the San Mateo and Magdalena mountains of Socorro County. *P. inflatus* blooms from early June through July between 7500 and 10500 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family

Scientific Name:
Penstemon jamesii

Size:
10 - 40 cm

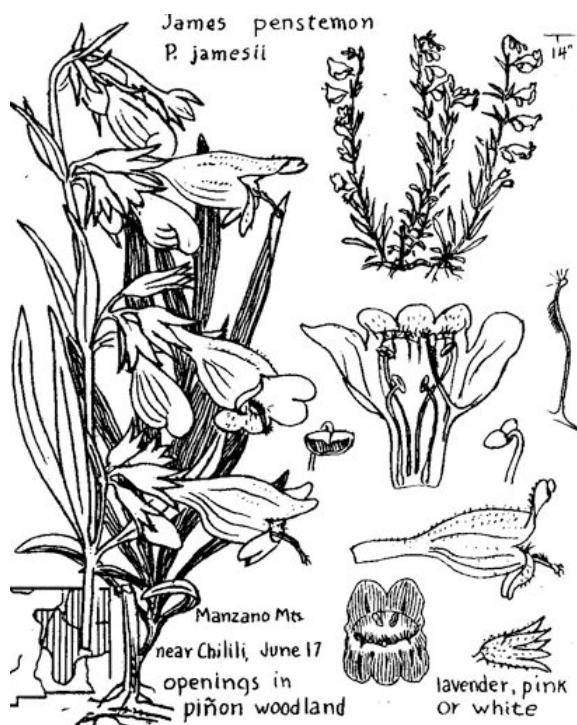
Description:
Erect perennial herb, stems 1 to several, somewhat hairy below, with gland-tipped hairs above. Leaves with short hairs or glabrous, edges smooth or toothed; basal leaves on petioles, linear to lanceolate, 2 - 8 cm long, 5 - 10 mm wide; stem leaves opposite, linear to lanceolate, 2 - 10 cm long, 5 - 15 mm wide, sessile. Flowers on short stalks, in clusters of 2 - 5 along one side of upper stems, with leafy, glandular bracts. Calyx with 5 lanceolate lobes 8 - 12 mm long, with gland-tipped hairs. Corolla tubular 25 - 35 mm long, with gland-tipped hairs externally, abruptly inflated, 2-lipped, the upper 2-lobed, projecting, the lower 3-lobed, bent backwards with long white hairs at the base. Staminode yellow hairy.

Common Name:
James penstemon

Color:
Lavender, pink or white

Notes:
It appears that the James penstemon was discovered in New Mexico. The first specimen was collected by Dr. Edwin James (see *Cryptantha cinerea*) on July 30, 1820 from the Don Carlos Hills about 25 miles south of Des Moines, NM, in western Union County. The flowers of this penstemon tend to grow on one side of the stem. The abrupt and strong inflation of each flower implies pollination by bees. James penstemon blooms from early May through June between 5000 and 7000 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family



Scientific Name:

Penstemon strictus

Size:

30 - 70 cm

Description:

Ascending to erect perennial herb, stems 1 to few. Herbage glabrous. Basal and lower stem leaves on petioles, oblanceolate 5 - 15 cm long, 5 - 16 mm wide, with smooth edges. Upper leaves opposite, lanceolate to linear, 4 - 10 cm long, 2 - 7 mm wide, sessile, often folded. Flowers on erect stalks in groups of 1 - 3 scattered along one side of upper stem. Calyx 3 - 5 mm long with 5 ovate lobes. Corolla tubular, 24 - 32 mm long, inflated on the bottom, 2-lipped, the upper 2-lobed, projecting, the lower deeply 3-lobed, bent back. Stamens 4, protruding, anthers long-hairy. Sterile staminode included, with a few long hairs or glabrous.

Common Name:

Rocky Mountain penstemon

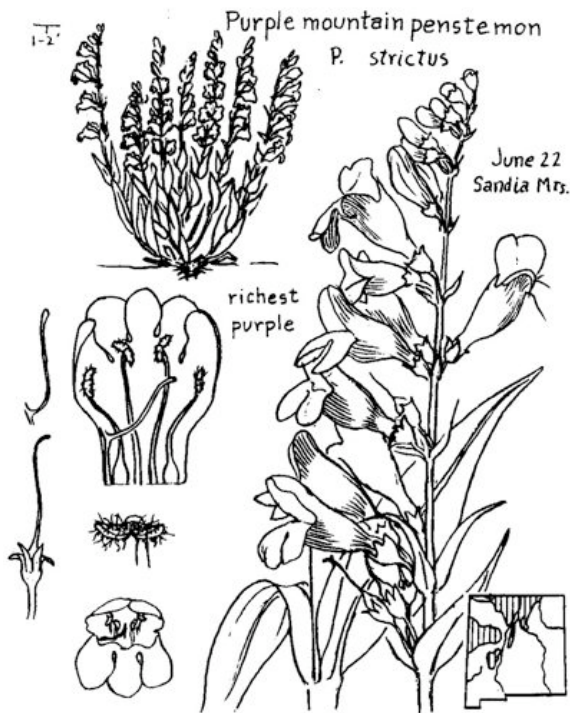
Color:

Purple (rarely white)

Notes:

The much inflated flowers of Rocky Mountain penstemon indicate bee pollination. Individual flowers can receive more than 100 bee visits per day. To attract pollinators, the flowers produce nectar. In bee pollinated flowers, the nectar volume is low, the sugar concentration high, and the rate of replenishment fairly rapid. In hummingbird pollinated flowers (see *Penstemon barbatus*), the nectar volume is several times that of bee pollinated flowers, the sugar concentration low, and the rate of replenishment significantly slower. Rocky Mountain penstemon blooms from June into August between 7000 and 10000 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family



Scientific Name:

Penstemon virgatus

Common Name:

Wandbloom penstemon

Size:

20 - 80 cm

Color:

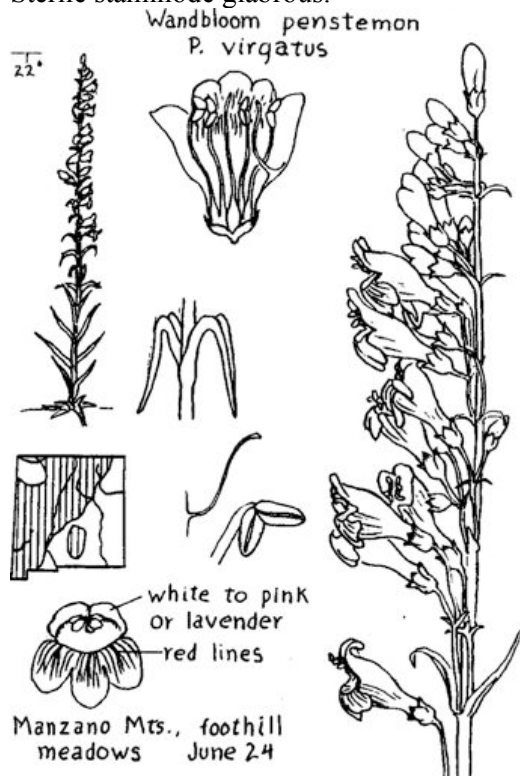
White to pink or lavender

Description:

Erect perennial herb, stems 1 to several. Herbage with very fine, short hairs. Leaves opposite, sessile, narrowly lanceolate to linear, 2 - 12 cm long, often folded. Flowers on stalks in clusters of 2 - 4 subtended by a pair of bractlets, each cluster on a stalk subtended by a linear bract, the bracts in opposite pairs on upper stem. Flowers on one side of stem. Calyx 3 - 4 mm long with 5 ovate to elliptic lobes with papery, ragged margins. Corolla tubular 15 - 25 mm long, inflated, 2-lipped, the upper 2-lobed, projecting, the lower 3-lobed, bent back, sometimes slightly hairy, with purple guidelines. Stamens 4, sometimes protruding. Sterile staminode glabrous.

Notes:

The species name *virgatus* is Latin meaning long, slender, rod-like in reference to the narrow, dense, one-sided grouping of the flower clusters, giving a wand-like appearance. The wandbloom penstemon was first discovered in New Mexico. John Milton Bigelow (1804-1878) and Charles Wright (see *Solidago wrightii*) with the Mexican boundary survey, collected it near Santa Rita in 1851. Wandbloom penstemon blooms from June through August between 7000 and 8500 ft.



New Mexico Native



SCROPHULARIACEAE -- Figwort Family



Scientific Name:

Penstemon whippleanus

Size:

20 - 60 cm

Description:

Ascending to erect perennial herb, stems clustered. Herbage glabrous below, with gland-tipped hairs and spreading white hairs above. Basal leaves well developed, on long petioles, lanceolate to ovate, 4 - 9 cm long, 1 - 3 cm wide. Stem leaves opposite, lanceolate, 2.5 - 6 cm long, sessile. Flowers hairy, on stalks, in 2 - 5 congested clusters of 2 - 4 flowers each scattered on upper stem. Calyx 7 - 10 mm long with 5 lanceolate, pointed segments. Corolla tubular 20 - 30 mm long, abruptly inflated, 2-lipped, the upper spreading, 2-lobed, the lower projecting, longer than upper, 3-lobed, with long hairs. Stamens 4, included. Staminode white, yellow hairy at the tip.

Common Name:

Whipple's penstemon, dusky penstemon

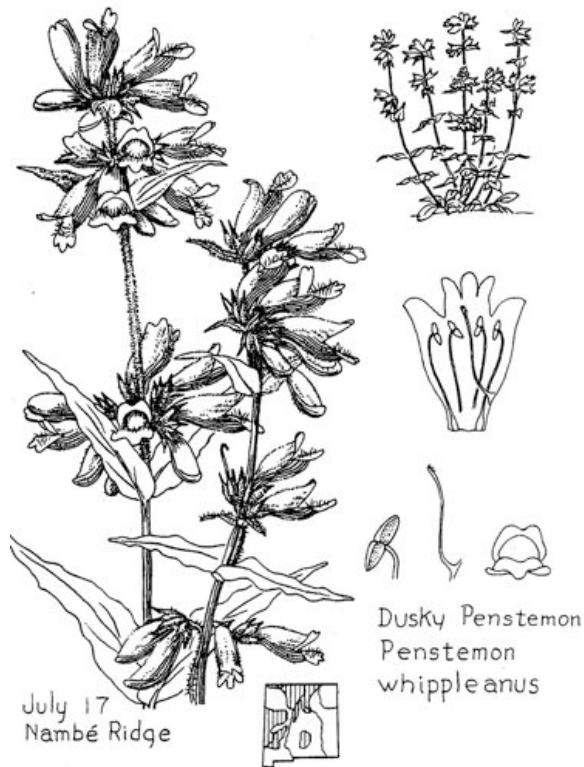
Color:

Rose purple

Notes:

This species is named for Amiel Weeks Whipple (1816-1863) commander of the Pacific Railroad Survey along the 35th parallel 1853-54. It was first collected by staff botanist John Milton Bigelow (see *Penstemon virgatus*) in the Sandia Mountains on October 10, 1853. The dull purple color, the hairy exterior, and the long forward projecting lower lip of the flower make it easy to recognize. Whipple's penstemon blooms from late June through August between 7500 and 10000 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family

Scientific Name:

Scrophularia montana

Size:

50 - 150 cm

Description:

Erect perennial herb, stems 4-angled, with toothed edges, branched above, with short hairs. Leaves opposite (sometimes whorled), with toothed edges, each pair perpendicular to the one below, on petioles shorter than 2 cm, lanceolate, 8 - 15 cm long, with fine gland-tipped hairs. Flowers small, stalked, in loose branched clusters at stem ends. Calyx 2 - 4 mm long with 5 ovate, glabrous lobes. Corolla 6 - 10 mm long, the tube urn-shaped, 2-lipped, the upper 2-lobed, flat, projecting, the lower 3-lobed, the 2 lateral lobes projecting, the central bent backwards. Stamens 4, not protruding. Sterile staminode a rounded, fan-shaped scale.

Common Name:

Figwort

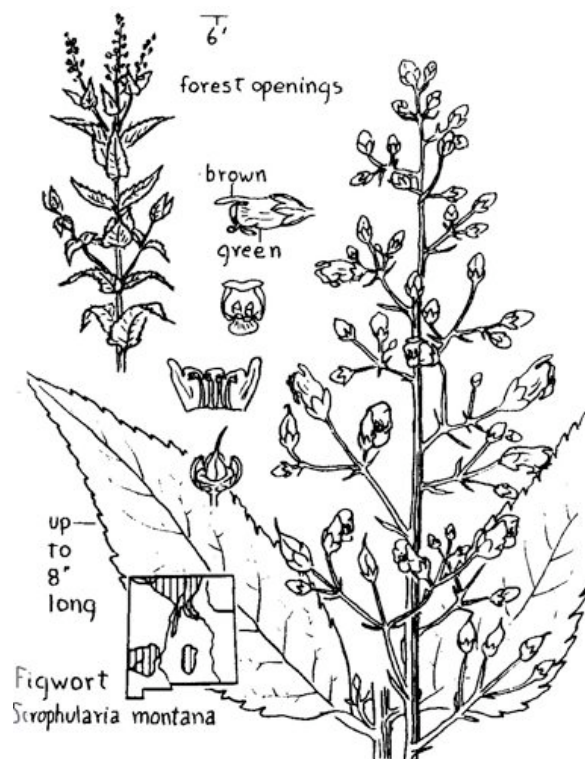
Color:

Greenish brown

Notes:

Centuries ago, the genus was named *Scrophularia* because the roots of the plant were used to treat scrofula, a tuberculosis of the lymph glands which produces nodules in the neck. The surface of the root has nodules similar in shape, so the ancients reasoned that it would be an effective treatment. This use of plant resemblance to a medical condition as a guide for treatment was an important part of herbal medicine known as the Doctrine of Signatures. *S. montana* only occurs in New Mexico. It blooms from late June into September between 7000 and 10000 ft.

New Mexico Native



SCROPHULARIACEAE -- Figwort Family



Scientific Name:
Verbascum thapsus

Size:
50 - 150 cm

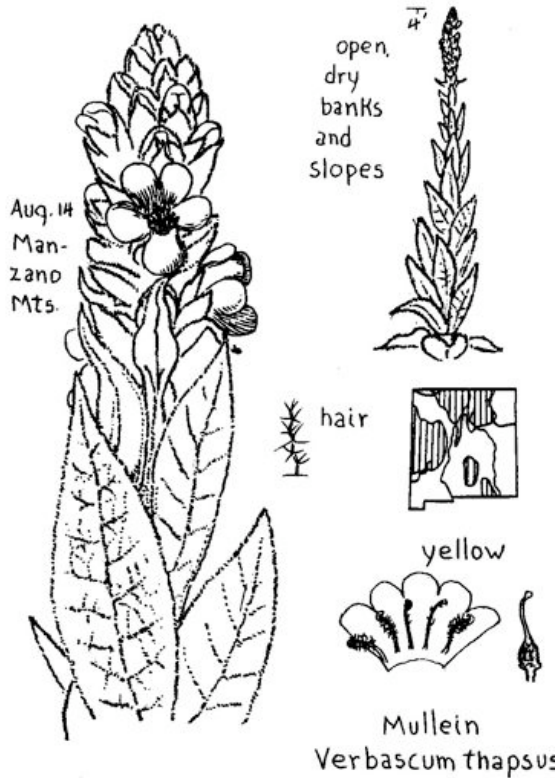
Description:
Stout, erect, biennial herb, stems solitary. Herbage densely woolly with forked or star-shaped hairs. Basal leaves on petioles, obovate to oblanceolate, 6 - 50 cm long, in a rosette. Stem leaves alternate, oblanceolate, gradually becoming smaller above, sessile with leaf bases extending down stem. Flowers almost sessile, densely clustered at top of stem. Calyx 5 - 10 mm long deeply parted into 5 lanceolate lobes. Corolla with a very short tube, disk-shaped, 12 - 30 mm across, with 5 slightly irregular lobes. Stamens 5, filaments of lower 2 glabrous or sparsely hairy, filaments of upper 3 yellow hairy.

Common Name:
Woolly mullein

Color:
Yellow

Notes:
The common name, mullein, comes from the Middle English *moleyne*, the old French *moleine* and ultimately from the Latin *mollis*, "soft", in reference to the leaves. The plant arrived in the Southwest with the Spaniards. The Spaniards, like the Greeks and Romans before them, dipped the stalks in tallow and used them as torches, giving rise to the Spanish name *candelaria*. The plants are biennial. The first year only a rosette of velvety basal leaves appears. The second year the tall, stout, flowering stalk appears. Mullein blooms from June into September between 6000 and 8500 ft.

Introduced*



SCROPHULARIACEAE -- Figwort Family



Scientific Name:

Veronica americana

Common Name:

American brooklime

Size:

10 - 35 cm

Color:

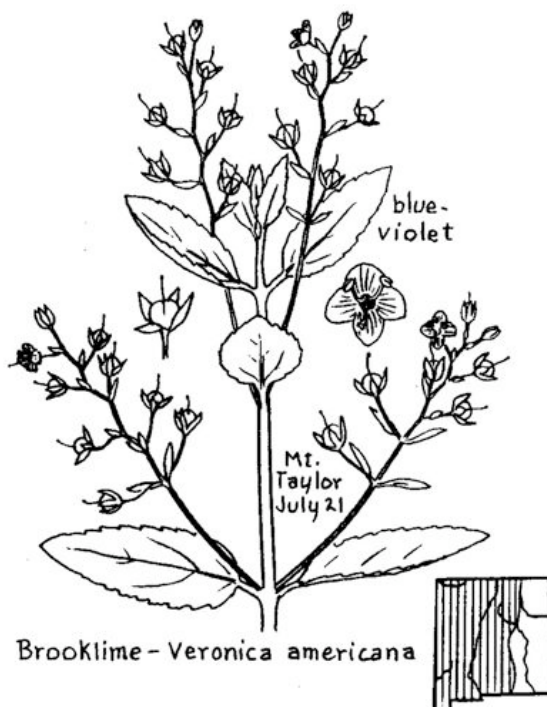
Blue violet

Description:

Glabrous, aquatic, perennial herb, stems ascending to erect, reclining at the base and rooting at lower nodes. Leaves opposite, on short petioles, ovate to lanceolate, 15 - 40 mm long, 7 - 25 mm wide, edges round toothed to smooth. Flowers perfect, on stalks 5 - 10 mm long subtended by a linear bract, in loose clusters of 10 - 25 on stalks from leaf axils. Calyx 2 - 5 mm long, with 4 distinct segments. Corolla 5 - 10 mm across, with a very short tube, unequally 4-lobed, the upper lobe largest, lateral lobes equal, the lower lobe smallest. Stamens 2. Pistil 1, style 1. Fruit a capsule 2 - 4 mm long, 3 - 5 mm wide, slightly notched, with a style 1.7 - 3 mm long.

Notes:

American brooklime is a slender, rather small plant which grows in running water or in muddy or moist areas near streams. It is similar to another Veronica found in streams, water speedwell (see *Veronica anagallis-aquatica*). Brooklime is generally smaller, both in stature and the size of parts. The leaves of brooklime are carried on short stalks, those of water speedwell are attached directly to and wrapping around the stem. The floral clusters of brooklime are smaller and fewer flowered than those of water speedwell. American brooklime blooms from late May into August between 5000 and 9000 ft.



New Mexico Native



SCROPHULARIACEAE -- Figwort Family

Scientific Name:

Veronica anagallis-aquatica

Size:

10 - 60 cm

Description:

Glabrous, aquatic, perennial herb, stems branched or simple, ascending to erect. Leaves opposite, elliptic, 2 - 7 cm long, 5 - 25 mm wide, sessile below, sessile and wrapping the stem above, edges somewhat saw-toothed. Flowers on up-curving stalks 4 - 8 mm long in stalked clusters from leaf axils. Calyx 3 - 6 mm long, with 4 lanceolate lobes. Corolla with a very short tube, disk-shaped, irregularly 4-lobed, the upper the largest, the lower the smallest, with purple lines. Stamens 2. Pistil 1, style 1.

Common Name:

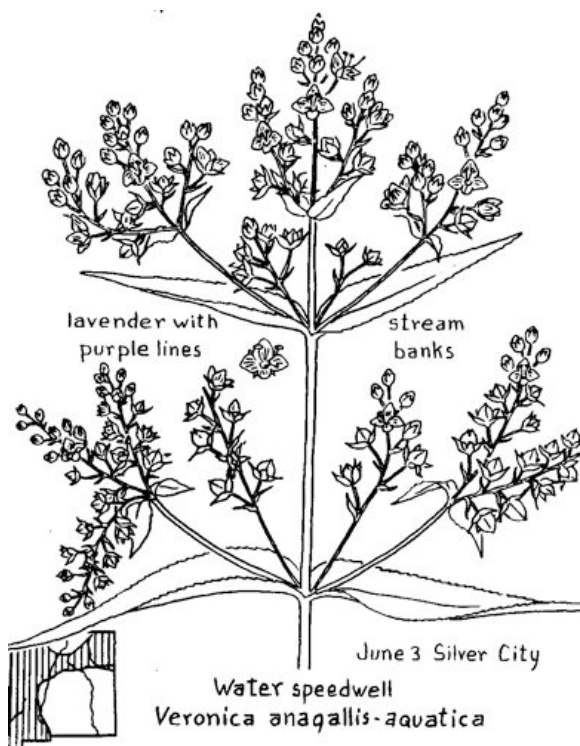
Water speedwell

Color:

Blue or pale violet

Notes:

The species name *anagallis-aquatica* comes from this plant's resemblance to plants of the terrestrial genus *Anagallis* (Pimpernel) in the Primrose Family. For hundreds of years, plants of the genus *Veronica* have been reputed to have curative powers, which is the genesis of the common name speedwell. The prefix speed-, however, is not related to rate, but refers to an archaic verb, meaning to cause to succeed or prosper. Water speedwell is similar to American brooklime. For discussion see *Veronica americana*. It blooms from early June into September between 5000 and 8500 ft.



Introduced*



SCROPHULARIACEAE -- Figwort Family



Scientific Name:

Veronica peregrina var. *xalapensis*

Common Name:

Purslane speedwell

Size:

5 - 25 cm

Color:

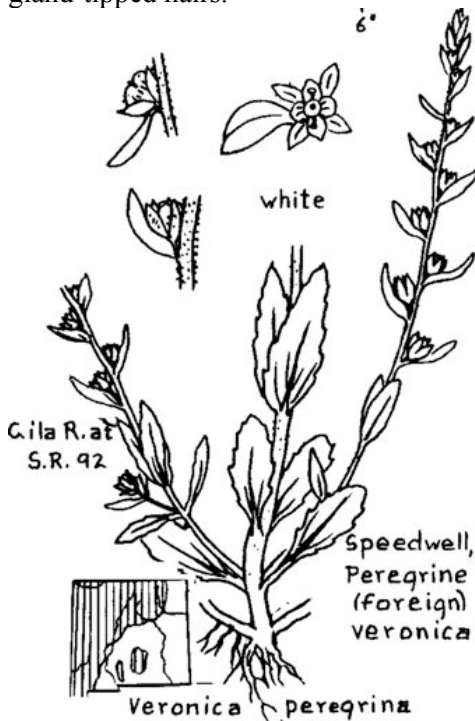
White

Description:

Ascending to erect annual herb, stems branched at the base, with gland-tipped hairs. Leaves opposite, sessile, narrowly oblong to oblanceolate, 5 - 20 mm long, 0.5 - 5 mm wide, mostly glabrous, edges smooth or with a few faint, irregular teeth. Flowers perfect, on short stalks with gland-tipped hairs, each stalk subtended by a mostly glabrous bract, these alternately placed along a glandular stalk at stem end. Calyx 3 - 6 mm long, with narrowly lanceolate lobes, these with a few gland-tipped hairs along edges. Corolla 2 - 3 mm across, with a very short tube and 4 unequal lobes. Stamens 2. Fruit obcordate, 3 - 4 mm long, with gland-tipped hairs.

Notes:

The species name *peregrina* is Latin for "foreign". The name was assigned to this species by Carl Linnaeus in 1753 in his *Species Plantarum*. The flowers of plants in the genus *Veronica* are very tiny, with a short tube and 4 unequal lobes, the upper lobe the largest, the 2 lateral lobes about equal, the lower the smallest. The large upper lobe is actually a fusion of 2 lobes. Fusion of petals is common in the Figwort family. The flowers contain only 2 stamens. Purslane speedwell blooms from early May into August between 6500 and 9000 ft.



New Mexico Native



SOLANACEAE -- Potato Family



Scientific Name:

Chamaesaracha coronopus

Size:

10 - 40 cm

Description:

Perennial herb, much branched from the base, stems reclining to ascending. Herbage with a sparse covering of branched or star-shaped hairs. Leaves alternate, linear or narrowly lanceolate, 1.5 - 6 cm long, 2 - 6 mm wide, with wavy-toothed margins. Flowers perfect, mostly solitary, on stalks 1 - 3 cm long, from leaf axils. Calyx bell-shaped, 5-lobed, 2.5 - 4 mm long, densely hairy. Corolla broadly bell-shaped, 6 - 10 mm wide, 5-angled, with 5 white, velvety appendages filling the throat. Stamens 5, anthers yellow. Fruit a berry 4 - 8 mm thick, firmly wrapped by the calyx.

Common Name:

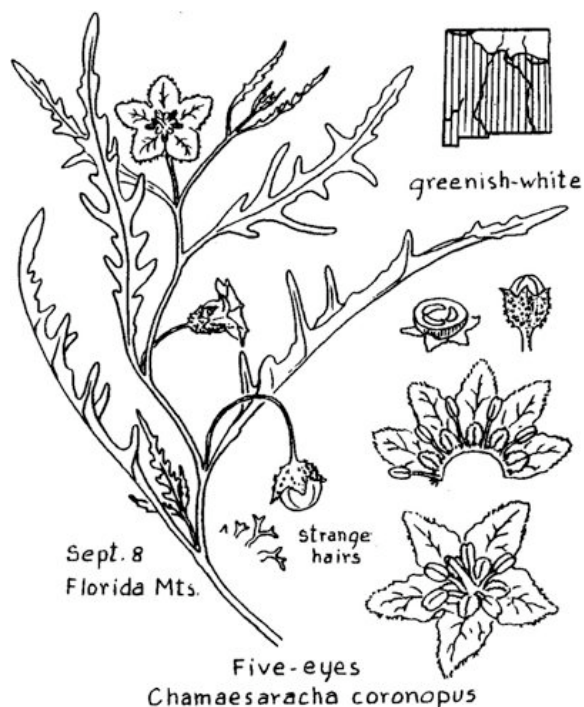
Five-eyes, false nightshade

Color:

Creamy white

Notes:

The genus name *Chamaesaracha* comes from the Greek *chamae*, "on the ground", and *Saracha*, a tropical American genus of the Solanaceae. The species name *coronopus* is attached since the leaves of this species resemble leaves common in the mustard genus *Coronopus* (*Coronopus didymus* occurs in New Mexico). Five-eyes blooms from May into July between 3500 and 7000 ft.



New Mexico Native



SOLANACEAE -- Potato Family



Scientific Name:

Lycium pallidum

Size:

50 - 200 cm

Description:

Upright shrub, stems much branched, spiny, mostly glabrous. Leaves alternate, oblanceolate to spatulate, 1 - 4 cm long, glabrous, waxy, clustered in bundles. Flowers perfect, on stalks 4 - 10 mm long, solitary or in groups of 2 or 3 from leaf axils. Calyx tube cup-shaped 2.5 to 4 mm long, with 5 lanceolate lobes up to twice as long as the tube. Corolla funnel-shaped, the tube 10 - 18 mm long, with 5 lobes 3 - 5 mm long. Stamens 4 or 5, protruding. Pistil 1, style 1. Fruit a reddish, glabrous, ovoid to almost round berry, 8 - 12 mm in diameter.

Common Name:

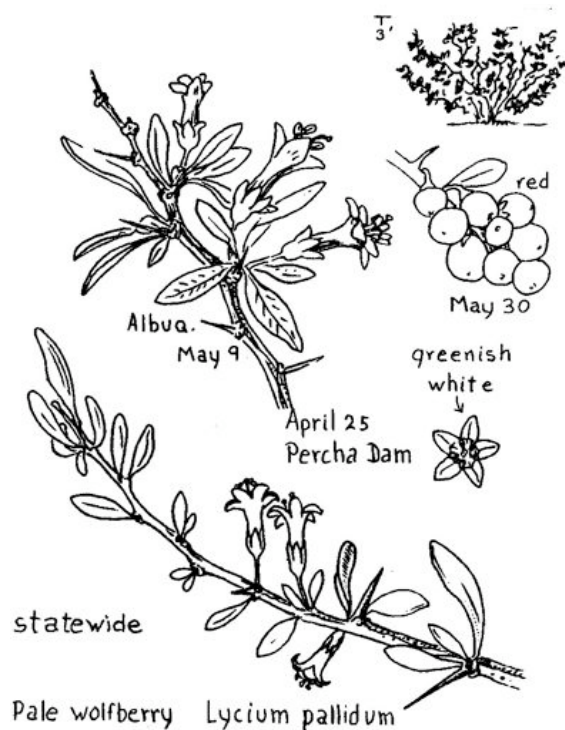
Pale wolfberry

Color:

Greenish white

Notes:

Pale wolfberry produces berries resembling tiny tomatoes. Birds and rodents enjoy them. Early native Americans also consumed the berries, although they are tasteless. The plants are commonly found around old ruins, apparently cultivated accidentally or intentionally. The species name *pallidum*, "pale", is in reference to the whitish, waxy coating of the stems and leaves. Pale wolfberry blooms from late April into July between 4500 and 7500 ft.



New Mexico Native



SOLANACEAE -- Potato Family



Scientific Name:

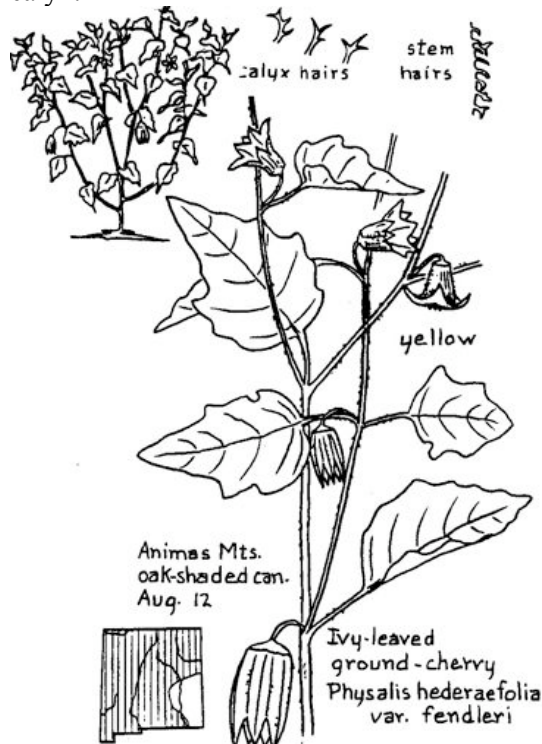
Physalis hederifolia var. *cordifolia*

Size:

30 - 70 cm

Description:

Synonym: *Physalis hederifolia* var. *fendleri*.
Erect to reclining perennial herb, stems branched, leafy. Herbage densely covered with simple, forked, or star-shaped hairs, not glandular. Leaves alternate, ovate to lanceolate, edges smooth or wavy-toothed. Flowers perfect, radially symmetric, mostly solitary, on somewhat stout, drooping stalks 5 - 10 mm long from leaf axils. Calyx bell-shaped, 7 - 10 mm long, with 5 short, triangular lobes. Calyx grows much larger with developing fruit. Corolla broadly funnel-shaped, 12 - 15 mm across, somewhat 5-angled, the limb often bent backwards. Fruit a fleshy berry 8 - 10 mm in diameter, completely enclosed by the papery calyx.



Common Name:

Ivy-leaved ground cherry

Color:

Light yellow with brown center

Notes:

In plants of the genus *Physalis*, the herbaceous cup (calyx) which supports the flower continues to grow after the flower is fertilized, forming a large papery sack around the fruit. The genus name comes from the Greek *physis*, "bellows" or "bladder", in reference to the inflated sack. Ivy-leaved ground cherry blooms from July through September between 4500 and 7500 ft.

New Mexico Native



SOLANACEAE -- Potato Family



Scientific Name:

Physalis longifolia var. *longifolia*

Size:

30 - 60 cm

Description:

Synonym: *Physalis virginiana* var. *sonorae*.

Erect to ascending perennial herb, stems usually single, branched above, glabrous or lightly hairy above. Leaves alternate, lanceolate or elliptic-lanceolate, 3 - 8 cm long, tapering to the petiole, margins smooth to somewhat wavy-toothed. Flowers perfect, radially symmetric, mostly solitary, on stalks 1 - 4 cm long from leaf axils. Calyx 6 - 10 mm long, bell-shaped, with triangular lobes 3 - 4 mm long, 10-nerved, these often hairy. Calyx grows much larger with fruit. Corolla broadly bell-shaped, 10 - 20 mm across, somewhat 5-lobed. Fruit a fleshy berry 8 - 10 mm in diameter completely enclosed by the papery calyx.

Common Name:

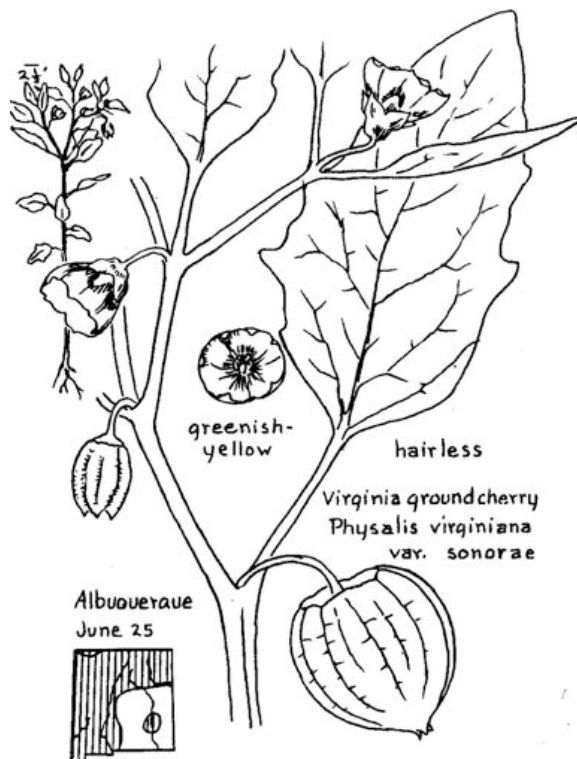
Common ground cherry, longleaf ground cherry

Color:

Yellow with brown center

Notes:

The fruit of a ground cherry is a berry, wrapped in a papery sheath (see *Physalis hederifolia*). Perhaps the most useful ground cherry is the tomatillo, *Physalis ixocarpa*, used in Mexican cooking and salsas. *P. ixocarpa* is native to Mexico, but has become established in a few New Mexico counties. *P. longifolia* blooms from July through September between 3500 and 7500 ft.



New Mexico Native



SOLANACEAE -- Potato Family



Scientific Name:
Solanum elaeagnifolium

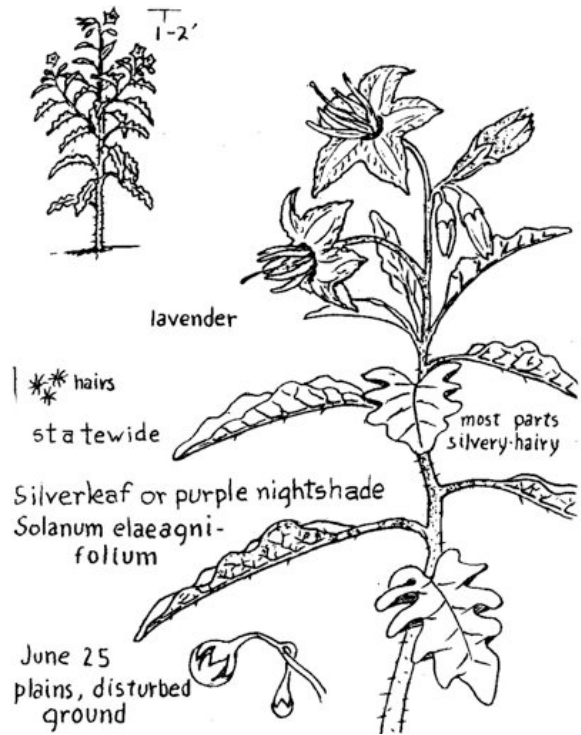
Common Name:
Silverleaf nightshade

Size:
20 - 100 cm

Color:
Lavender or white

Description:
Erect perennial herb, stems somewhat woody at the base. Herbage silvery, densely covered with star-shaped hairs, and lightly to heavily with short bristly spines. Leaves alternate, narrowly lanceolate to oblong, 3 - 15 cm long, 5 - 15 mm wide, with smooth to somewhat wavy margins. Flowers perfect, on stalks, in few-flowered loose clusters near stem or branch ends. Calyx 5-angled, bell-shaped, 5 - 8 mm long, with 5 linear lobes. Corolla broadly funnel-shaped, 20 - 30 mm wide, 5-lobed, the edges bent backwards. Stamens 5, filaments short, anthers yellow, 7 - 9 mm long, protruding, surrounding the style. Fruit a round berry 9 - 15 mm in diameter, yellowish to reddish, black in age.

Notes:
The species name *elaegnifolium* comes from Greek meaning "with foliage like *Elaeagnus*". *Elaeagnus* is the genus of Russian olive, whose leaves are similar to those of nightshade. The plants have deep roots and tough stems and are considered a noxious weed. The leaves and berries are poisonous. A few ounces of ripe berries can kill a cow or a person. Silverleaf nightshade blooms from June into October between 3500 and 7500 ft.



New Mexico Native



SOLANACEAE -- Potato Family

Scientific Name:

Solanum jamesii

Size:

10 - 40 cm

Description:

Ascending to erect perennial herb, stems branched, bushy, glabrous or with scattered hairs especially among flowers. Leaves alternate, 7 - 15 cm long, odd-pinnate with 7 - 11 lanceolate to oblong-elliptic leaflets, the end leaflet largest, up to 5 cm long. Flowers perfect, on stalks 1 - 2 cm long in loose, branched clusters of 3 - 10 near stem end. Calyx bell-shaped, 4 - 8 mm long, irregularly 5-lobed, mostly glabrous. Corolla broadly bell-shaped with 5 lanceolate lobes forming a star-shape 12 - 25 mm across, sometimes bent backwards. Stamens 5, filaments short, anthers long, yellow, surrounding the style. Fruit a glabrous berry about 1 cm in diameter.

Common Name:

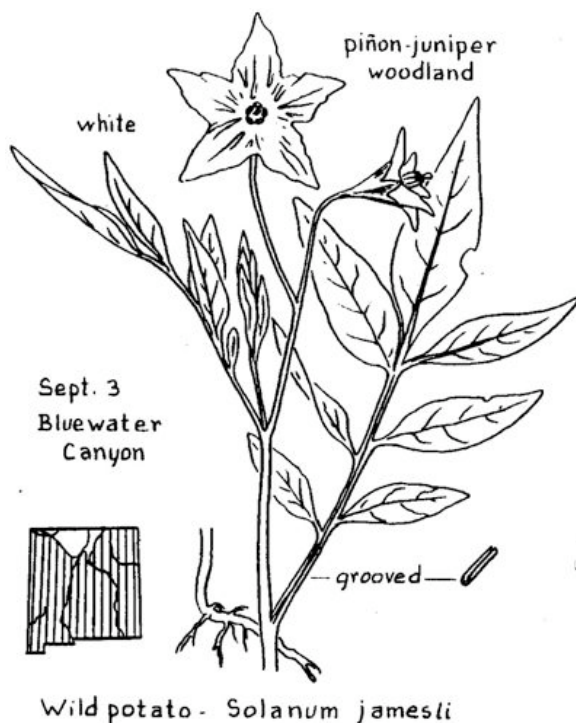
Wild potato

Color:

White

Notes:

The cultivated potato, *Solanum tuberosum*, one of the world's most important food crops, like all potatoes, is indigenous to the New World. Six other varieties are cultivated in the Andes. There are almost 200 wild species in 16 countries in North, Central, and South America. The United states has only 3, all in the southwest. Wild potato blooms from July into September between 5000 and 7500 ft.



New Mexico Native



SOLANACEAE -- Potato Family

Scientific Name:

Solanum rostratum

Size:

20 - 70 cm

Description:

Spreading annual herb, stems much branched. Herbage densely covered with star-shaped hairs and straight yellow bristles. Leaves alternate, 4 - 15 cm long, 3 - 7 cm wide, irregularly once or twice pinnatifid, with broad, rounded, somewhat crinkly lobes. Flowers perfect, on ascending stalks in a slender cluster of 5 - 15, the axis elongating in fruit. Calyx bell-shaped 4 - 5 mm long, 5-lobed, hidden in spines. Corolla flattened, funnel-shaped, 20 - 25 mm across with 5 broad lobes. Stamens and style protruding, hanging down. Stamens 5, with short filaments, 4 yellow and equal, 1 longer, greenish, curved. Fruit a berry enclosed by the bristly calyx.

Common Name:

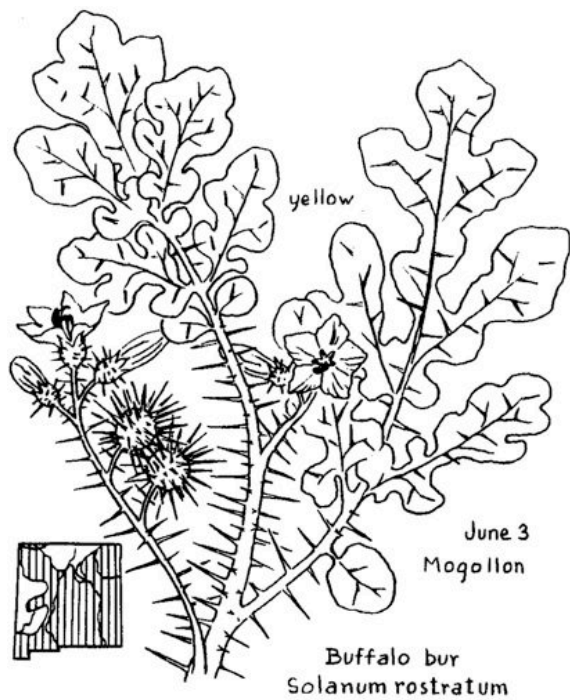
Buffalo bur

Color:

Yellow

Notes:

The genus name *Solanum* comes from the Latin *solamen*, "quieting", in reference to the fact that several species contain narcotic chemicals. The entire family contains highly toxic members (nightshades, buffalo bur), hallucinogenic members (*Datura*), pharmacologically active members (*belladonna*), as well as many important food crops such as bell peppers, tomatoes, potatoes, and chile. Buffalo bur blooms from late June into September between 4000 and 7000 ft.



New Mexico Native



TAMARICACEAE -- Tamarisk Family



Scientific Name:

Tamarix chinensis

Common Name:

Salt cedar

Size:

200 - 400 cm

Color:

Pink

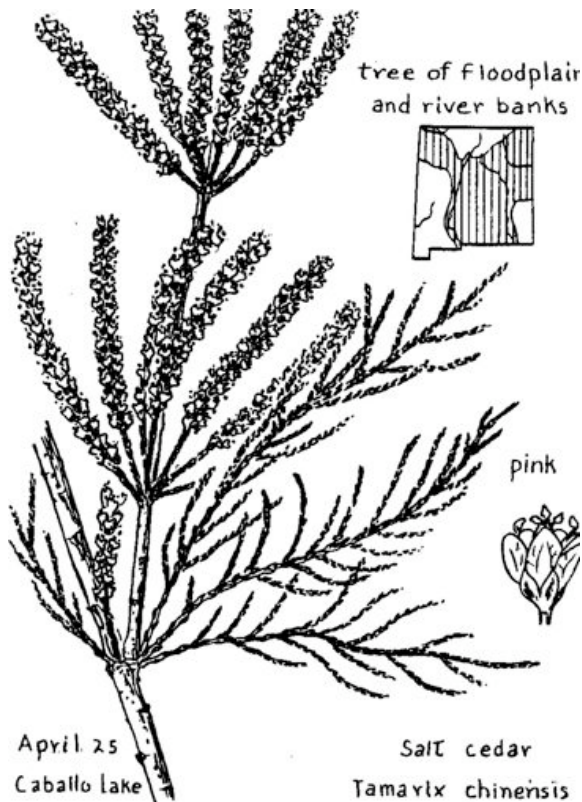
Description:

Synonym: *Tamarix ramosissima*

Shrub or small tree, bark reddish brown. Leaves alternate, sessile, scale-like, about 1 mm long, lying flat against the stems. Flowers on short stalks in dense, slender, cylindrical, stalked clusters 2 - 6 cm long, 5 - 7 mm wide scattered along branches. Sepals usually 5, obovate, 1 - 2 mm long. Petals usually 5, obovate, 1 - 2 mm long, alternating with sepals. Stamens 5. Pistil 1, stigmas 2 - 5. Fruit a capsule 3 - 4 mm long.

Notes:

Salt cedar is not a native species. It is generally considered to be a noxious weed. It has an extensive and deep taproot. The plants spread rapidly, forming dense colonies which can survive fires, bulldozing and most other efforts at eradication. They are salt tolerant and extensive water users. Salt cedar blooms from May into August between 3000 and 7000 ft.



Introduced*



URTICACEAE -- Nettle Family



Scientific Name:

Urtica dioica ssp. *gracilis*

Common Name:

Stinging nettle

Size:

50 - 150 cm

Color:

Greenish white

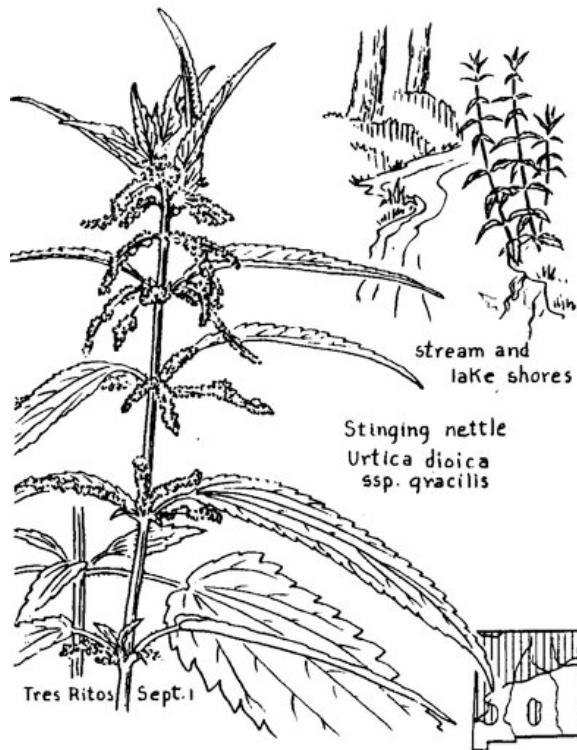
Description:

Synonym: *Urtica gracilis*.

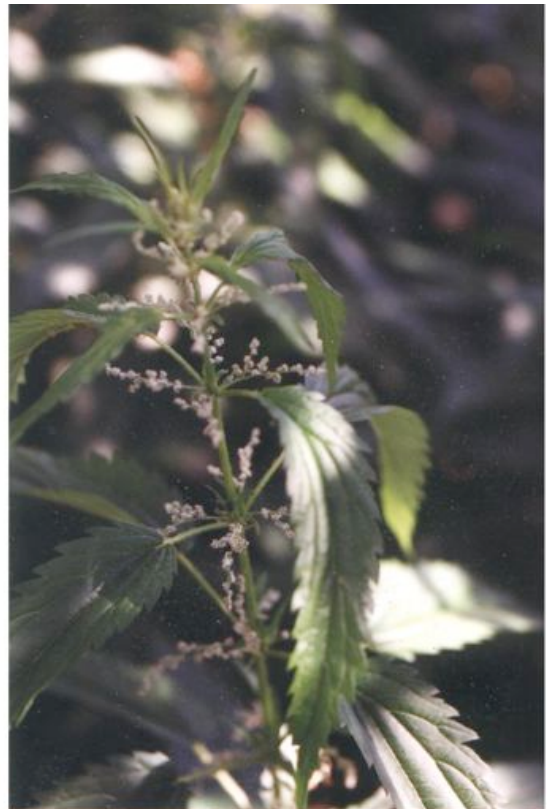
Erect perennial herb, stems with stinging hairs, otherwise hairy to almost glabrous. Leaves opposite, lanceolate to ovate-lanceolate, 3 - 15 cm long, 2 - 8 cm wide, edges coarsely toothed, petioles 1 - 6 cm long. Petioles and leaf veins with stinging hairs. Flowers tiny, unisexual, in dense, narrow, elongate clusters from leaf axils. Clusters on a plant all male, all female or some of each.

Notes:

The stinging hairs on this nettle contain formic acid, the same acid which produces the sting of an ant bite. When the hairs break the skin, they can cause significant discomfort. Stinging nettles prefer moist ground and can be found occasionally in the Manzanos near more consistent streams. They bloom from late June into September between 6500 and 8500 ft.



New Mexico Native



VALERIANACEAE -- Valerian Family



Scientific Name:
Valeriana arizonica

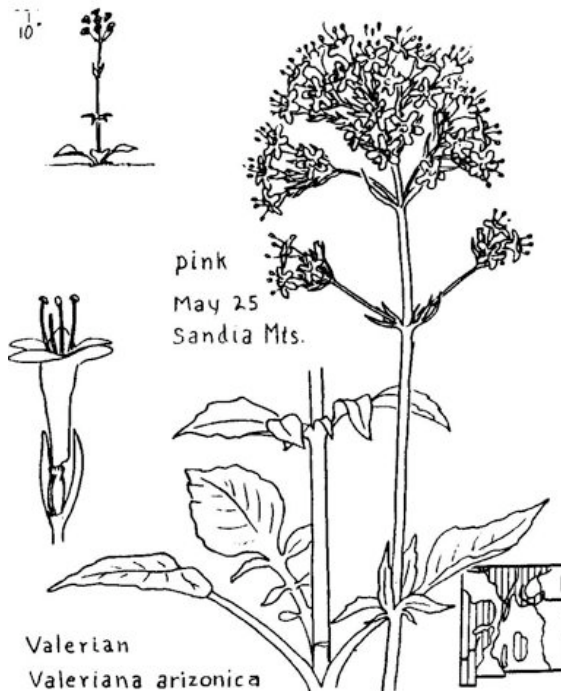
Common Name:
Arizona valerian

Size:
10 - 30 cm

Color:
White to pink

Description:
Unpleasant smelling glabrous perennial herb. Basal leaves on petioles, ovate to elliptic, 2 - 5 cm long, 1 - 3 cm wide, smooth-edged, sometimes with an opposite pair of small lobes somewhat separated from blade. Stem leaves reduced, pinnatifid, in 1 - 3 opposite pairs. Flowers perfect, in several stalked clusters at stem end. At flowering, segmented calyx small, rolled inward, greatly elongating in fruit, developing numerous plumose bristles around the rim. Corolla trumpet-shaped, 10 - 15 mm long, with 5 lobes 1.5 - 2.5 mm long. Stamens usually 3, protruding. Style 1, protruding, stigma 3-lobed.

Notes:
The genus name *Valerian* comes from the Latin *valere*, "to be strong". Plants of the genus have been assumed to have medicinal properties for many centuries. Mithridates, king of Pontus (a province bordering the Black Sea), listed valerian as a treatment for poisoning in the 1st century B.C. Modern herbalists still actively seek valerian for the sedative effects of the root. Arizona valerian blooms from early May through June between 6000 and 8500 ft.



New Mexico Native



VALERIANACEAE -- Valerian Family



Scientific Name:

Valeriana edulis

Size:

30 - 100 cm

Description:

Foul smelling, glabrous perennial herb. Basal leaves thick, linear to obovate, tapering to petiole, 7 - 40 cm long, 7 - 50 mm wide; some basal leaves with forward pointing lobes. Stem leaves opposite, sessile, reduced, in 2 - 6 pairs, pinnatifid with 3 - 7 narrow segments. Male and female flowers on separate plants with some perfect flowers. Flowers in numerous stalked clusters on upper stem. At flowering, segmented calyx small, rolled inward, greatly elongating in fruit, developing 9 - 13 plumose bristles around the rim. Corolla tubular, 5-lobed, 2.5 - 3.5 mm long in perfect and male flowers, about 1 mm long in female flowers. Stamens 3, barely protruding.

Common Name:

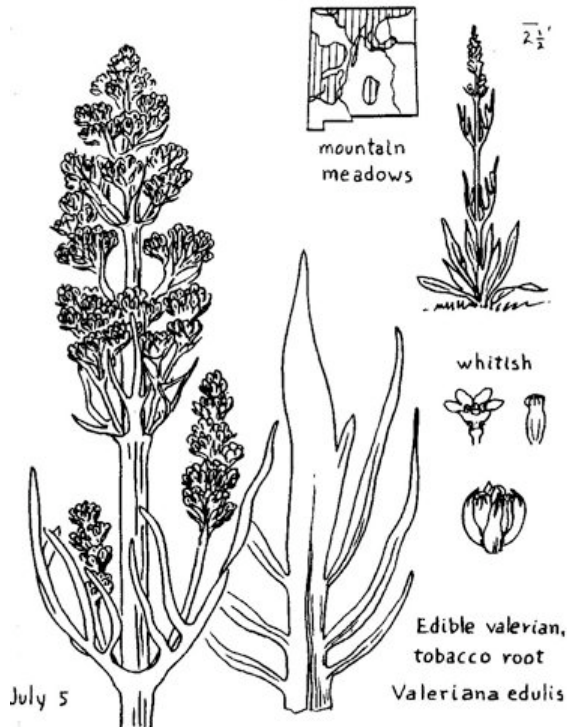
Edible valerian, kooyah

Color:

Yellowish white

Notes:

This plant has an unpleasant, musty smell. Even herbarium specimens retain the aroma. The species name *edulis* is Latin for "edible". This designation is questionable. Some native Americans baked and ate the roots. The common name "kooyah" is from the Shoshonee name for the plant. Early botanical explorers who shared this food apparently found it barely endurable. It also carries the common name tobacco root. It blooms from mid-June into August between 5000 and 10000 ft.



New Mexico Native



VERBENACEAE -- Verbena Family



Scientific Name:

Glandularia bipinnatifida

Size:

15 - 30 cm

Description:

Reclining to ascending perennial herb, stems 4-angled, branched from the base, with coarse, stiff hairs 1 - 2 mm long. Leaves on petioles, opposite, 1 - 6 cm long, 1 - 6 cm wide, twice pinnatifid or 3-cleft into pinnatifid segments, with stiff hairs lying flat above and below. Flowers sessile, in dense clusters at stem ends. Calyx tubular, 8 - 10 mm long, 5-angled, unequally 5-toothed, with stalked glands and hairy veins, subtended by a bract about as long as calyx. Corolla tubular, trumpet-shaped, hairy, 1.5 times as long as calyx, with 5 lobes. Stamens 4, in 2 unequal pairs, the upper pair each with a red gland on the anthers. Style 1. Fruit of 4 1-seeded nutlets.

Common Name:

Dakota vervain, pink vervain

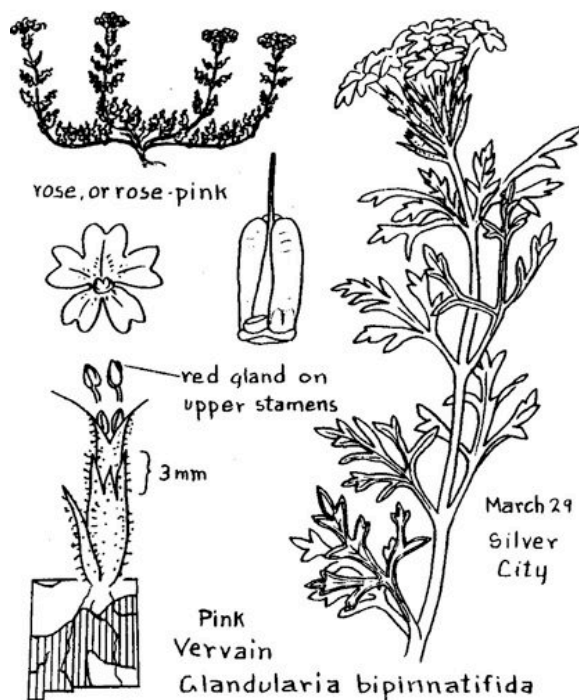
Color:

Rose pink

Notes:

Dakota vervain is primarily pollinated by butterflies. The flowers have long, narrow tubes with nectar at the bottom. Only insects with very long tongues can reach the nectar. In Spanish, the plant is called *moradilla* (the diminutive of *morado*, violet), meaning "little violet one". Dakota vervain is a very persistent bloomer, blooming for months or sometimes starting a new blooming cycle with sufficient moisture. It blooms from late March sometimes into October between 4000 and 8000 ft.

New Mexico Native



VERBENACEAE -- Verbena Family



Scientific Name:

Verbena bracteata

Size:

10 - 50 cm

Description:

Annual or brief perennial herb, stems several, reclining to ascending, with sparse, spreading hairs. Leaves opposite, with stiff hairs lying flat, petioles with broad, flat edges, blades 1 - 4 cm long, irregularly toothed and parted, 3-lobed, the middle large, the 2 lateral pinnately set, small. Flowers sessile, in long cylindrical clusters at stem ends. Calyx 3 - 4 mm long, tubular, hairy, 5-toothed, subtended by 1 lanceolate bract 5 - 15 mm long. Corolla trumpet-shaped, the tube 3 - 5 cm long, with 5 spreading lobes. Stamens 4, in 2 unequal pairs, not protruding. Style 1, short. Fruit of 4 1-seeded nutlets.

Common Name:

Weed verbena, prostrate verbena

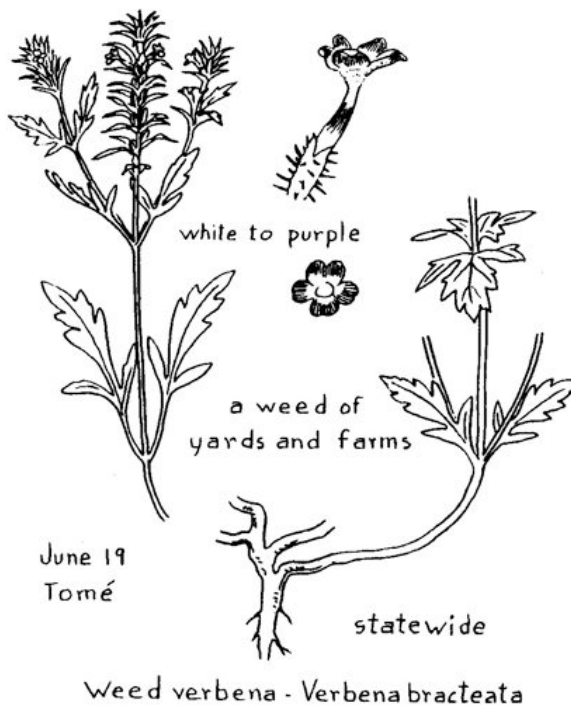
Color:

Light blue to lavender

Notes:

The stems of weed verbena lie flat on the ground, but the flower clusters at the branch ends curve upward. Each flower has a long, narrow bract beneath it giving the cluster a shaggy appearance. The active blooming region is a narrow ring which gradually moves upward as the cluster lengthens. Numerous species of verbena are popular in decorative gardens. The verbena family is not limited to garden flowers. It also contains the extremely dense hardwood tree, teak. Weed verbena blooms from May into September between 3500 and 7500 ft.

New Mexico Native



VERBENACEAE -- Verbena Family



Scientific Name:

Verbena macdougalii

Common Name:

Spike verbena

Size:

30 - 100 cm

Color:

Purple

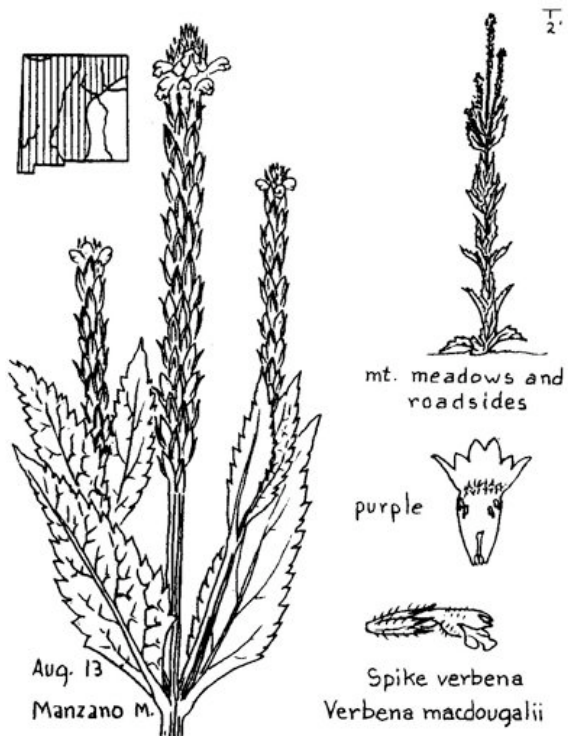
Description:

Erect perennial herb, stems 2 to several, sparingly branched. Herbage densely covered with long, soft, spreading hairs. Leaves opposite, sessile or with short petioles, oblong-elliptic to ovate-lanceolate, 4 - 10 cm long, 1.5 - 4 cm wide, with irregularly toothed edges. Flowers sessile, in dense cylindrical clusters at stem end or from upper leaf axils. Calyx tubular, 5-angled, 4 - 6 mm long, unequally 5-toothed, subtended by a bract as long or longer than the calyx. Corolla trumpet-shaped, 5 - 7 mm wide, the tube barely surpassing the calyx, unequally 5-lobed. Stamens 4 in unequal pairs, not protruding. Style short. Fruit of 4 1-seeded nutlets.

Notes:

This species was named for Daniel Trembly MacDougal (1865-1958), one of the great pioneers in the science of plant physiology. MacDougal, probably more than any other individual, was instrumental in the popularization of the evolutionary theories of the Dutch botanist De Vries (see *Oenothera coronopifolia*). MacDougal was one of the early directors of the Desert Research Laboratory founded by the Carnegie Institute in Tuscon, Arizona(now part of the University of Arizona). New Mexico vervain blooms from June through August between 6500 and 8000 ft.

New Mexico Native



VIOLACEAE -- Violet Family



Scientific Name:

Viola canadensis

Common Name:

Canada violet

Size:

15 - 30 cm

Color:

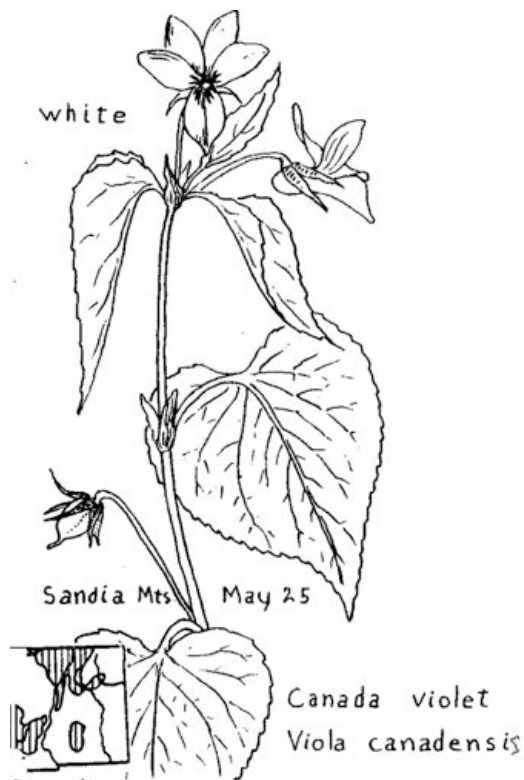
White

Description:

Ascending to erect perennial herb, stems 1 to several, finely hairy. Basal leaves 3 - 5, on long petioles, heart-shaped, 3 - 10 cm long, 2 - 7 cm wide, pointed at the apex, margins with shallow pointed to rounded teeth, glabrous or finely hairy on veins below. Stem leaves alternate, similar to basal. Stipules lanceolate, 8 - 15 mm long, papery. Flowers on stalks 1 - 4 cm long from upper leaf axils. Sepals 5, lanceolate, pointed, 4 - 6 mm long. Petals 5, unequal, the lower with a basal spur, hairy and yellowish at the base inside, with purple lines. Two laterals with yellowish hairy base. Top 2 yellow at base. Stamens 5.

Notes:

Violets have 5 petals: a pair at the top usually without hairs, a lateral pair often hairy at the base, and a larger bottom petal, generally hairy at the base and marked with guidelines and having a hollow extension at the base (spur) extending beneath the flower. The spur contains nectar to entice pollinators, although the showy spring flowers actually produce little seed (see next page). Canada violets are the only white violets in the Manzanos. They bloom from early May into July between 6500 and 10000 ft.



New Mexico Native



VIOLACEAE -- Violet Family



Scientific Name:

Viola sororia var. *affinis*

Common Name:

Bog violet

Size:

5 - 20 cm

Color:

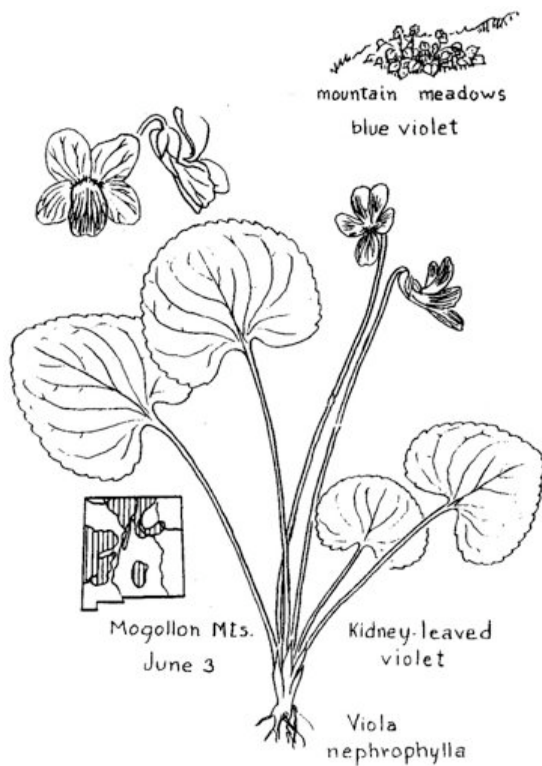
Purple

Description:

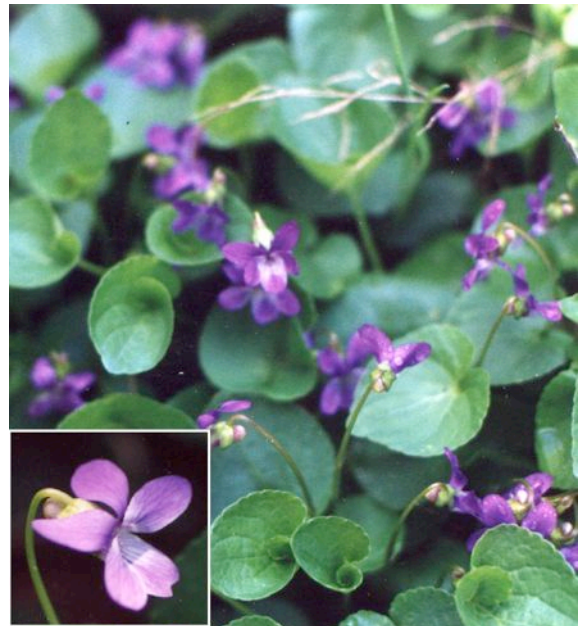
Synonym: *Viola nephrophylla* var. *arizonica*.
Stemless perennial herb. Leaves on glabrous petioles 3 - 20 cm long arising from root crown, blades ovate to heart-shaped or kidney-shaped, 2 - 6 cm long and wide, not pointed at apex, margins with shallow pointed or rounded teeth and hairs, surfaces often sparsely hairy. Stipules 5 - 12 mm long, smooth edged. Flowers solitary on leafless stalks as long or longer than leaves. Sepals 5, lanceolate, 5 - 7 mm long. Petals 5, unequal, the lower with a basal spur 2 - 5 mm long and a whitish base, 2 laterals with white bases, 2 uppers purple. Stamens 5.

Notes:

Violets have 5 unequal petals (see previous page). The beautiful spring flowers, however, do not produce much seed. Later flowers are small, with rudimentary petals and only 2 stamens, never opening, rather wrapped by 5 modified leaves (sepals). These secondary flowers self-fertilize. Commonly self-fertilization produces stunted or functionless seeds, but in the case of violets, the secondary flowers develop abundant and viable seed. Bog violets bloom from May through July in moist, shady environments between 6500 and 9000 ft.



New Mexico Native



VITACEAE -- Grape Family



Scientific Name:

Parthenocissus vitacea

Size:

Long vine

Description:

Clambering to weakly climbing woody vine with few-branched tendrils having tips without adhesive disks. Leaves alternate, on long petioles, with 5 elliptic to obovate or oblanceolate leaflets all originating from the same point at the tip of the petiole, 3 - 12 cm long, 2 - 6 cm wide, edges coarsely toothed, lustrous green above, pale and sometimes thinly hairy below. Flowers in 2-branched clusters opposite from leaves, each branch again diversely branched. Calyx small, cup-like, shallowly 5-lobed. Petals 5, spreading or bent backwards. Stamens 5. Fruit a dark blue to black waxy berry with thin flesh.

Common Name:

Thicket creeper, woodbine

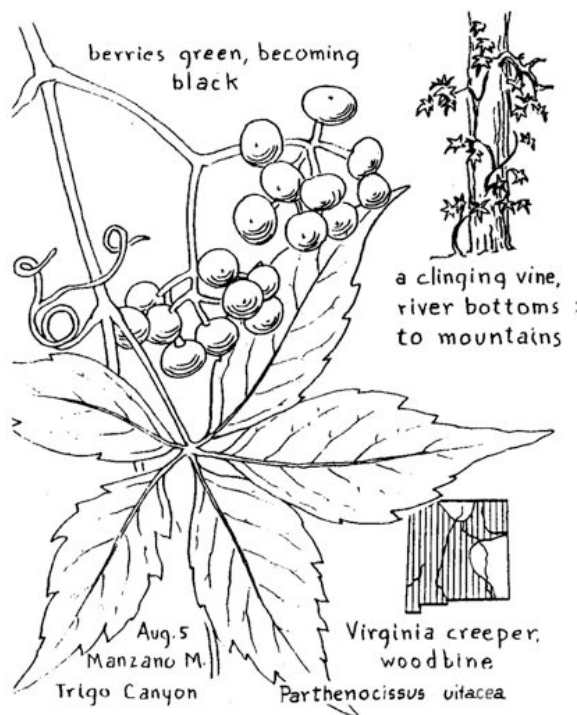
Color:

Greenish

Notes:

The genus name *Parthenocissus* comes from the Greek *parthenos*, "virgin" and *cissus*, "ivy". Virgin's ivy became virgin's creeper and ultimately Virginia creeper, the name of a close relative of thicket creeper which is cultivated all over the United States as a decorative vine. Both creepers have magnificent bright red foliage in the fall. The berries contain a potent quantity of oxalic acid and can be toxic. Thicket creeper blooms in May and June between 4500 and 7500 ft.

New Mexico Native



VITACEAE -- Grape Family



Scientific Name:

Vitis arizonica

Common Name:

Canyon grape

Size:

Vine 200 - 600 cm

Color:

White

Description:

Clambering woody vine, much branched, with shreddy bark. Leaves alternate, heart-shaped to ovate-heart-shaped or kidney-shaped, 3 - 12 cm long, 4 - 14 cm wide, palmately veined and lobed, coarsely toothed, surfaces cottony to almost glabrous when young, more or less glabrous in age. Tendrils opposite leaves, branched, often coiling. Male and female flowers on separate plants, in branched clusters opposite leaves. Calyx vestigial. Petals 5, distinct, but stuck together at the tip. Male flowers with 5 tall stamens and a vestigial pistil. Female flowers with a well-developed pistil and 4 short functionless stamens. Fruit a juicy berry 6 - 10 mm in diameter.

Notes:

Although astringent, the fruit of canyon grapes is edible and certainly heavily consumed by birds and animals. The great Harvard botanist, Asa Gray, began study of grape tendrils in 1858. Charles Darwin extended Gray's work in a paper in 1865. The tendrils do not simply grow out and coil in one direction around a support. Rather, the growing tip attaches and the tendril begins coiling at the middle, forming 2 reversed coils proceeding in both directions. Canyon grapes bloom from early May into June between 5000 and 7500 ft.

New Mexico Native

