### **BERBERIDACEAE** -- Barberry Family

### 

### Scientific Name:

Berberis haematocarpa

### Size:

1 - 4 m

### Description:

Erect shrub with rigid, spineless branches, often found in groups. Leaves alternate, odd-pinnate with 3-9 (commonly 5) lanceolate to ovate leaflets with 5-10 triangular, spine-tipped lobes or teeth. Terminal leaflet 1.5-3.8 cm long, 5-10 mm wide, 2-5 times as long as wide, stalked. Flowers perfect, in loose clusters of 3-7 at branch tips. Sepals 6, distinct, yellow, in 2 series. Petals 6, rounded, erect. Stamens 6. Pistil 1. Fruit of round, solid, juicy, purplish red berries 5-8 mm in diameter.

### Common Name:

Red barberry, algerita

### Color:

Yellow flowers, red-purple berries

### Notes:

The bright yellow flowers of barberry bushes resemble miniature daffodils. The dull, stiff, spiny leaves make barberry easy to recognize. The species name *haematocarpa* comes from the Greek *haema*, "blood", and *carpos*, "fruit", in reference to the juicy, red berries. Red barberry is an alternate host to the parasitic wheat rust *Puccinia graminis*. Barberry blooms from April into June between 3000 and 7000 ft.



Red barberry, algerita Berberis haematocarpa



### **BERBERIDACEAE** -- Barberry Family

### 

# Scientific Name: Berberis repens

### Size:

10 - 20 cm

### Description:

Synonym: Mahonia repens.

Perennial with woody, trailing to ascending stems without spines. Leaves alternate, odd-pinnate with 3 - 7 ovate to elliptic leaflets 1 - 7 cm long, 1 - 5 cm wide, edges with 12 - 40 spine-tipped teeth; upper leaf surface bluish to dull green, gray-green below. Flowers perfect, on short stalks in dense, many-flowered clusters. Sepals 6, yellow, the outer three 2 - 3 mm long, the inner three 5 - 8 mm long. Petals 6, yellow, in 2 series. Stamens 6. Fruit a waxy blue berry.

### Common Name:

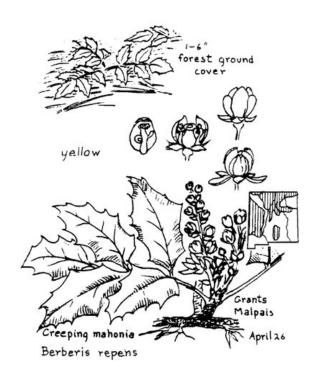
Creeping Mahonia, Oregon grape

### Color:

Yellow flowers, blue berries

### Notes:

Thomas Nuttall named this plant for his friend and colleague Bernard MacMahon (1755-1816), an Irish immigrant who operated a plant nursery in Philadelphia and helped introduce decorative gardening to the United States. Creeping mahonia leaves are not deciduous. The plants are very colorful in the fall when the leaves turn purplish or red and the berries turn very blue. Creeping mahonia blooms from April into June between 6500 and 10000 ft.





### 

### Scientific Name: Cryptantha cinerea

### Size:

10 - 20 cm

### Description:

Synonym: Cryptantha jamesii.

Perennial herb, stems solitary or in groups from a woody base, with stiff hairs lying flat and usually some erect hairs. Leaves oblanceolate to narrowly lanceolate with stiff hairs lying flat or sometimes almost glabrous. Flowers in a loose cluster near the top of the stem. Calyx with 5 ovate-lanceolate lobes divided halfway or more to the base, coarsely hairy, 5 - 7 mm long in fruit. Corolla trumpet-shaped, 5-lobed, limb 4 - 8 mm wide, tube about equal to calyx, the throat narrowed by yellow scales. Fruit 1 - 4 nutlets 1.8 - 2.5 mm long, smooth and shiny.

### Common Name:

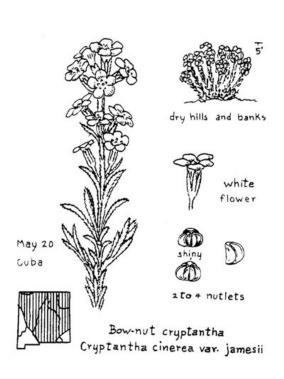
Bow-nut cryptantha

### Color:

White

### Notes:

Member of the genus *Cryptantha* are often referred to by the common name, hiddenflower. This term comes from the Greek *cryptos*, "hidden", and *anthos*, "flower", used to name the original South American species with very small self-pollinating flowers. This *Cryptantha* was discovered by Dr. Edwin James (1797 - 1861) on an 1820 expedition through southeastern Nebraska, eastern Colorado, and northeastern New Mexico. Bow-nut cryptantha blooms from May to August between 5000 and 8000 ft





### 

### Scientific Name:

Cryptantha crassisepala var. elechantha

### Size:

5 - 15 cm

### **Description:**

Annual herb, stems erect to spreading, with coarse, stiff hairs. Leaves alternate, narrowly oblanceolate, 2 - 3 cm long, with coarse, stiff hairs having inflated blister-like bases. Flowers nearly sessile in solitary elongate clusters at stem ends. Calyx 5-lobed, divided at least halfway to the base, segments narrowly lanceolate, with coarse, stiff hairs, midribs thickening and hardening at maturity. Corolla tubular, trumpet-shaped, less than 3 mm long, limb less than 3.5 mm in diameter, the throat constricted by scales. Fruit of 4 nutlets, unlike, one larger (2 - 3 mm) than the others.

### Common Name:

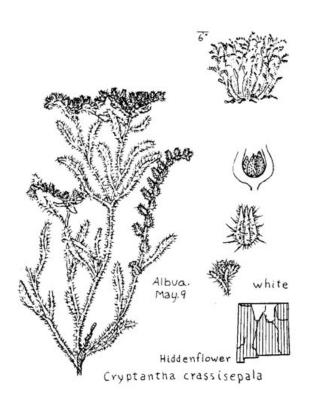
Hiddenflower, Thicksepal cryptantha

### Color:

White

### Notes:

The genus name Cryptantha, "hidden flower" is truly applicable to this plant. Its flowers are quite reduced, hardly protruding from the subtending calyx. The plant is small in stature and densely hairy. Its dissimilar nutlets are typical in members of Cryptantha, which often abort some nutlets or enhance one. Nutlet size, shape, and surface characteristics are important species differentiation. Thicksepal cryptantha blooms from late April through June between 3500 and 6500 ft.







### 

### Scientific Name:

Cryptantha paysonii

### Size:

10 - 30 cm

### Description:

Perennial herb, stems erect, unbranched, with stiff hairs lying flat and some erect. Leaves mostly basal(alternate above), oblanceolate, with stiff hairs lying flat. Flowers in a head-like cluster with stalks 1 - 3 cm long. Calyx 5-lobed, 8 - 10 mm long, divided at least to the middle, segments linear-lanceolate, with dense bristles. Corolla tubular, trumpet-shaped, 7 - 14 mm in diameter. Corolla exceeds calyx by at least 2 mm, the throat constricted by bright yellow scales, but with the interior of the tube base without crests. Fruit of usually 4 nutlets 2.5 - 3 mm long, finely wrinkled on both surfaces.

### Common Name:

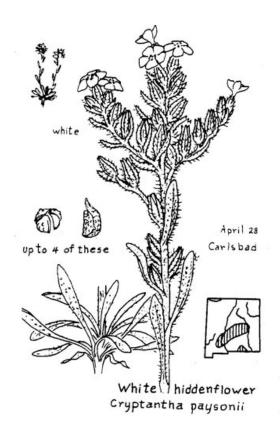
Payson's cryptantha

### Color:

White and yellow

### Notes:

Payson's cryptantha is extremely showy. Its flowers are large for *Cryptantha* and the bright yellow throat scales are very striking. The flowers also have a very noticeable fragrance. The plant is named for Edwin Blake Payson (1893-1927), a protégé of Aven Nelson at the University of Wyoming. It blooms from late April through June between 4000 and 7500 ft.





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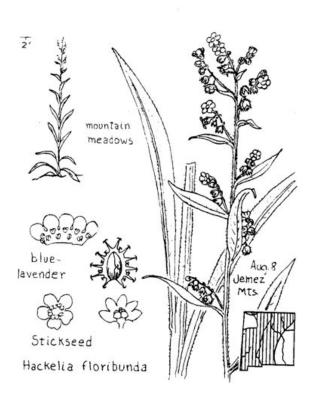
### Scientific Name: Hackelia floribunda

### Size:

50 - 100 cm

### Description:

Erect biennial or short-lived perennial, stems few, stout. Herbage with coarse hairs spreading or lying flat. Basal leaves with petioles, oblanceolate, early deciduous. Stem leaves alternate, 4 - 20 cm long, 5 - 30 mm wide; the lower ones with petioles, oblanceolate; the upper sessile, lanceolate to narrowly elliptic, reduced above. Flowers perfect, individually on short stalks, in long-stalked leafless clusters from leaf axils. Calyx cleft nearly to the base into 5 lobes. Corolla trumpet-shaped, the mouth 4 - 7 mm wide with 5 rounded lobes bent flat. Stamens 5, not protruding. Fruit of 4 pricklymargined nutlets on down-curving stalks.



### Common Name:

Stickseed, beggarlice

### Color:

White to blue

### Notes:

The genus *Hackelia* is named for the Czech botanist Joseph Hackel (1783-1869). The species name *floribunda* is Latin for "profusely flowering", and this stickseed has numerous several-flowered clusters of either white or blue flowers often with a yellow eye. The seeds resemble those of another stickseed genus, *Lappula* (see *Lappula redowskii*), but in *Lappula* the fruit is carried on an erect stalk and each flower is subtended by a leaf-like bract. *Hackelia floribunda* blooms from mid-June to mid-August between 7000 and 10000 ft.

**New Mexico Native** 



### 

### Scientific Name:

Lappula redowskii

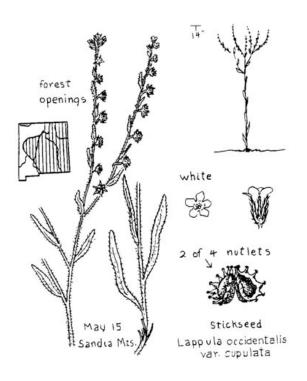
### Size:

5 - 40 cm

### Description:

Synonym: Lappula occidentalis

Erect annual herb, stems branched above. Herbage with short, stiff hairs lying flat and spreading. Leaves alternate, oblanceolate to linear or linear-oblong, 1 - 4 cm long, 5 - 10 mm wide, sessile, becoming lanceolate bracts above. Flowers perfect, on stalks 1 - 2 mm long, from axils of bracts, forming long interrupted clusters. Calyx cleft nearly to base, with 5 erect lanceolate segments. Corolla 3 - 4 mm long, 1.5 - 2.5 mm wide, tubular, 5-lobed, the throat closed by 5 appendages. Stamens 5, not protruding. Fruit of 4 nutlets carried on an erect stalk, each with a single row of marginal prickles.



### Common Name:

Stickseed

### Color:

White

### Notes:

The genus name *Lappula* comes form the Latin *lappa*, "bur" and the diminutive ending *-ula*, in reference to the prickly-edged nutlets. Plants of this genus distinctly resemble another stickseed genus *Hackelia* (see *Hackelia floribunda*), but in Hackelia the fruiting stalks bend downward and the individual flowers are not subtended by a bract. Stickseed blooms from mid-April through August between 4500 and 9000 ft.





### 

### Scientific Name:

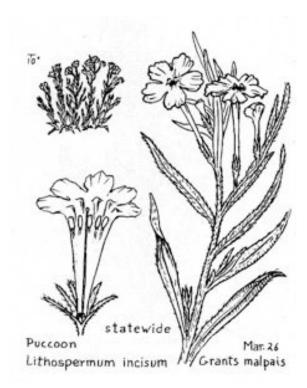
Lithospermum incisum

### Size:

25 - 60 cm

### Description:

Erect or ascending perennial herb, stems usually several. Herbage with stiff hairs lying flat. Basal leaves deciduous before flowering. Stem leaves alternate, sessile, linear to linear-oblong, 2 - 6 cm long, 2 - 7 mm wide. Flowers perfect, on short stalks, in leafy clusters at stem end. Calyx 6 - 10 mm long, deeply cleft into 5 narrow lobes. Corolla showy, trumpet-shaped, the tube 15 - 35 mm long with 5 small appendages in the throat, the mouth with 5 crinkly, rough-edged, spreading lobes. Stamens 5, short. Style 1, long. Late season flowers lower, corollas small or absent, never opening, self-pollinating. Fruit of 4 hard nutlets.



### Common Name:

Cutflower puccoon

### Color:

Yellow

### Notes:

The genus name *Lithospermum* comes from the Greek *lithos*, "stone" and *sperma*, "seed". The seeds of the plant are hard, smooth, and bony. The common name puccoon comes from an Algonquin word for plants which yield red dye from the roots, a characteristic of some members of the genus *Lithospermum* (see *Lithospermum multiflorum*). The showy yellow flowers of cutflower puccoon actually produce few seeds. Later in the season, very small flowers form lower on the plant which never really open and are self-fertilizing. These obscure flowers actually produce most seed. Puccoon blooms from April to June between 4000 and 8000 ft.





### 

### Scientific Name:

Lithospermum multiflorum

### Size:

25 - 60 cm

### Description:

Erect perennial herb, stems several, clumped, with spreading hairs and stiff hairs lying flat. Leaves alternate, none basal, lowest scale-like, those above linear to narrowly lanceolate, 2 - 6 cm long, 2 - 15 mm wide, sessile, with stiff hairs lying flat above, more spreading below. Flowers perfect, on short stalks, clustered at stem end, sometimes drooping. Calyx 4 - 6 mm long, deeply cleft into 5 narrow, hairy segments. Corolla tubular funnel-shaped, 9 - 15 mm long, flared at the end, with 5 rounded, smooth-edged lobes. Stamens 5, short. Style 1, sometimes long, sometimes short. Fruit of 4 pale, shiny hard nutlets.



### Common Name:

Wayside gromwell, puccoon

### Color:

Yellow

### Notes:

The tiny scale-like lower leaves and the roots of this plant contain a reddish-purple dye, which gives rise to the common name puccoon (see *Lithospermum incisum*). The term gromwell is of English origin and is a generic term for members of the genus *Lithospermum*. The flowers of wayside gromwell are of two types, one with stamens mounted low in the floral tube and a style greatly exceeding the stamens, the other with stamens mounted high in the floral tube and a short style well below the stamens. This guarantees cross-pollination. Wayside gromwell blooms from June into August between 6000 and 8500 ft.





### 

### Scientific Name:

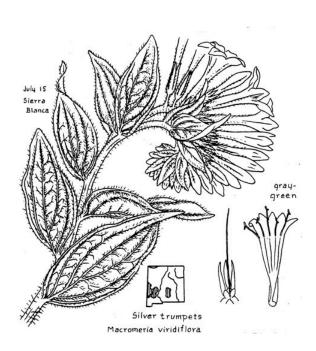
Macromeria viridiflora var. thurberi

### Size:

50 - 100 cm

### Description:

Erect perennial herb, stems sparingly branched, with bristly hairs. Leaves alternate, sessile, smooth-edged, strongly veined, lanceolate, 5 - 11 cm long, 1 - 4 cm wide, at least upper surface with bristly, broad-based hairs up to 1 mm long, leaves reduced above. Flowers perfect, on short stalks, in coiled clusters at stem ends. Calyx 8 - 18 mm long, deeply incised into 5 linear lobes, hairy. Corolla tubular funnel-shaped, 4 - 6 cm long, bristly-hairy on the outside, with 5 spreading, pointed lobes. Stamens 5, 1 - 2 cm long, slightly protruding, anthers 3 - 4 mm long. Style 1, protruding, greatly protruding from young fruit. Fruit of 4 nutlets, ovoid, smooth and shiny.



### Common Name:

Large-flowered gromwell

### Color:

Greenish-yellow

### Notes:

The genus name *Macromeria* comes from the Greek *macros*, "large" and *meris*, "part". Compared to most members of the Borage family, the parts of this plant are indeed large: long stems, large leaves, and particularly huge flowers. The genus *Macromeria* contains 11 species, all from Mexico and Guatemala except the two varieties of the species *viridiflora* (meaning green-flowered) which occur in New Mexico and Arizona. Large-flowered gromwell blooms from early July through August between 6500 and 9000 ft.





### 'nêrwîrnêrnêrnêrwîrnêrnêrwîrwîrwîrwîrwîrwîrwîrwîrwîrwî

### Scientific Name: Mertensia franciscana

## **Size:** 30 - 50 cm

### Description:

Erect or ascending perennial herb, stems 1 to several, glabrous or with hairs lying flat. Leaves alternate, smooth-edged, strongly veined, upper surface with stiff hairs lying flat, lower glabrous or with more spreading hairs; basal and lower stem leaves on long petioles, elliptic to ovate or lanceolate, 5 - 10 cm long, 2 - 5 cm wide, early deciduous; stem leaves similar, with short petioles or sessile. Flowers pendant, perfect, on stalks, in branched clusters near branch ends. Calyx 2.5 - 5 mm long, with 5 lanceolate lobes cleft nearly to base, hairy on the back. Corolla funnel-shaped, flared, 5lobed, 10 - 15 mm long, with 5 scale-like crests in the throat. Stamens 5. Style 1.

# blue and pink Nambe Creek Franciscan bluebells Mertensia franciscana

## **Common Name:** Franciscan bluebells

# *Color:* Light blue to pink

### Notes:

Franciscan bluebells were first collected by Daniel Trembly MacDougal (see *Verbena macdougalii*) from the San Francisco mountains north of Flagstaff, Arizona, giving rise to the species and common names. MacDougal was instrumental in establishing the Desert Botanical Laboratory of the Carnegie Institution in Tucson in 1903 (now a part of the University of Arizona) which pioneered research in desert ecology. Franciscan bluebells are tall, robust plants which can form impressive stands. They bloom from mid-May into July between 7000 and 9000 ft.



### 

### Scientific Name:

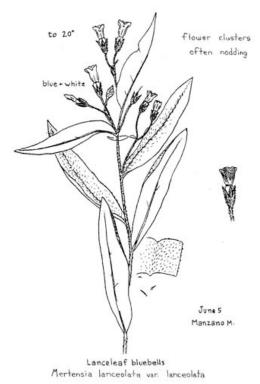
Mertensia lanceolata var. lanceolata

### Size:

20 - 40 cm

### Description:

Ascending to erect perennial herb, stems 1 to several, glabrous or with fine whitish hairs. Basal leaves with petioles, narrowly ovate to elliptic or lanceolate, 2 - 14 cm long, 5 - 35 mm wide; upper surface with short hairs lying flat or glabrous, glabrous below, margins smooth. Stem leaves lanceolate, sessile, somewhat reduced above without lateral veins, edges somewhat hairy. Flowers perfect, pendant, on stalks in loose clusters near stem ends. Calyx 2 - 5 mm long, with 5 lanceolate lobes, incised half to two-thirds of the way to the base. Corolla tube 3 - 7 mm long, flared, 5-lobed, with 5 scale-like crests in the throat, hairy within. Stamens 5.



### Common Name:

Rocky Mountain bluebells

### Color:

Light blue

### Notes:

The genus *Mertensia* is named for Francis Carl Mertens (1764 - 1831), a botanist from Bremen, Germany and colleague and friend of the great British botanist William Jackson Hooker. Common in the Manzanos, Rocky Mountain bluebells are among the first flowers to bloom in the spring, sometimes as early as the last week of March. They bloom from April into June between 6500 and 9000 ft.





### 

### Scientific Name:

Alyssum minus

### Size:

10 - 25 cm

### Description:

Annual herb, stems curving upward from the base or erect. Herbage densely covered with star-shaped hairs. Leaves alternate, spatulate to oblanceolate, 5 - 20 mm long, 2 - 7 mm wide, with smooth edges, tapering to the base. Flowers perfect, on stalks 3 - 5 mm long, in a dense cluster at stem end (sometimes in leaf axils), the stalks elongating in fruit. Sepals 4, about 2 mm long. Petals 4, 3 - 4 mm long, notched at the apex. Stamens 6, 4 of equal length, 2 shorter. Style 1, stigma headlike. Fruit a thin lens-shaped pod, divided into 2 compartments by a thin membrane, the pod notched at the apex and bearing a persistent style.



### Common Name:

Small alyssum, field alyssum

### Color:

Yellow

### Notes:

The genus name *Alyssum* translates from Greek as "without madness". The plants were thought to cure rabies. *Alyssum* is indigenous to Eurasia. Several species have been naturalized in the United States, some as garden ornamentals, others as weeds. *Alyssum minus* was first reported in New Mexico in 1986. It has spread considerably and is now becoming common in the Manzanos. It blooms from April into July between 5000 and 7500 ft.





### 

### Scientific Name:

Arabis fendleri

### Size:

25 - 60 cm

### Description:

Erect perennial herb, stems 1 to several, hairy at the base, glabrous above. Basal leaves with petioles, oblanceolate, 2 - 6 cm long, 1 - 10 mm wide, surfaces with simple or forked hairs or glabrous, edges smooth to toothed, with hairs. Stem leaves oblong to lanceolate, sessile, bases clasping the stem, 1 - 4 cm long, 2 - 8 mm wide, with smooth edges. Flowers perfect, on glabrous stalks, in a loose cluster at stem end. Petals 4, spatulate, 5 - 8 mm long, 2 - 3 mm wide. Stamens 6, 4 equal, 2 shorter. Fruit a slender glabrous pod, 3 - 6 cm long, 1 - 3 mm wide, hanging down, divided into 2 compartments by a thin membrane.



Common Name:

Fendler's rockcress

### Color:

Lavender to pink or white

### Notes:

The word "cress" is commonly applied to members of the mustard family. Rockcress is a mustard that prefers habitat with areas of rocks interspersed with soil. Fendler's rockcress is an early bloomer, flowering from April into June between 5000 and 8000 ft.

**New Mexico Native** 



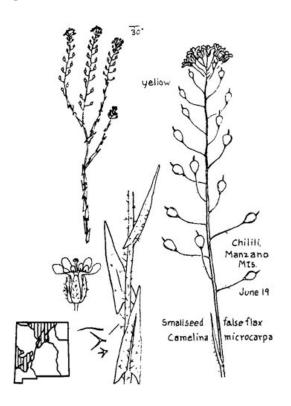
### 

### Scientific Name: Camelina microcarpa

# *Size:* 30 - 80 cm

### Description:

Erect annual herb, stems branched above. Herbage rough-hairy, with simple and branched or star-shaped hairs. Leaves alternate, triangular-lanceolate, sessile, with smooth edges, the leaf bases wrapped around stem. Flowers perfect, on glabrous upward curving stalks 8 - 18 mm long, in loose clusters at branch ends, greatly elongating in fruit. Sepals 4, erect, hairy, deciduous, 2 - 3 mm long. Petals 4, spatulate, 3 - 4 mm long, rounded at the apex. Stamens 6, 4 equal, 2 shorter. Fruit a glabrous obovoid pod 5 - 7 mm long, 3 - 4 mm in diameter, divided into 2 compartments by a membrane. Style persistent, about half as long as pod.



### Common Name:

Smallseed falseflax

### Color:

White to yellow

### Notes:

With its narrow, alternate leaves and stalked fruits scattered along the upper stems, falseflax resembles true flax, *Linum usitatissimum*. Both are native to Eurasia, imported to the United States by European colonists. The genus name *Camelina* is derived from two Greek roots, *chamae*, "lowly" or "creeping" and *linon*, "flax", in reference to the common presence of *Camelina* in cultivated flax fields. *C. microcarpa* blooms from May through June between 4500 and 7500 ft.

Introduced\*



### 

### Scientific Name:

Capsella bursa-pastoris

### Size:

10 - 40 cm

### Description:

Erect annual herb, stems sparsely branched. Herbage with branched or star-shaped hairs. Basal leaves 3 - 10 cm long, 1 - 3 cm wide, oblanceolate, incised or toothed. Stem leaves much smaller, alternate, lanceolate, sessile, leaf base wrapped around stem. Flowers perfect, on stalks, in loose clusters at stem ends, elongating in fruit. Sepals 4, 1 - 3 mm long, with short, soft hairs or glabrous. Petals 4, 2 - 4 mm long, rounded at the apex. Stamens 6, 4 equal, 2 shorter. Fruit a glabrous heart-shaped pod, 6 - 8 mm long, divided into 2 compartments by a membrane, with a short, persistent style in the notch at the apex.

### Common Name:

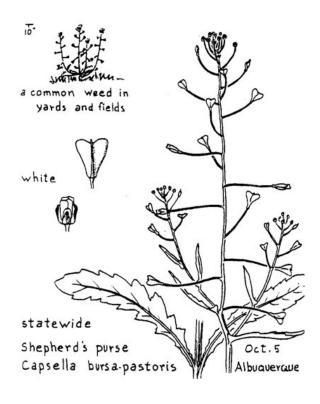
Shepherd's purse

### Color:

White

### Notes:

The genus name *Capsella* means "little box". The species name *bursa-pastoris* comes from the Latin *bursa*, meaning "purse", and *pastoris*, "of a shepherd". Both genus and species names characterize the seed pod. It has been reported the somewhat sticky seeds trap minute insects attempting to feed on them. The plant then assimilates the insects for extra nitrogen. Shepherd's purse blooms from April through September between 4000 and 9000 ft.







### 

### Scientific Name: Cardaria draba

### Size:

20 - 60 cm

### Description:

Erect to reclining perennial herb, stems several from spreading rootstock, branched near the top, with short hairs. Leaves alternate, oblong to elliptic or lanceolate, 3 - 8 cm long, 1 - 4 cm wide, lowest leaves with petioles, upper leaves sessile with leaf bases wrapped around stem, edges wavy-toothed to smooth, with short hairs. Flowers perfect, on ascending stalks about 10 mm long, in dense clusters at branch ends. Sepals 4, elliptical, 1 - 2 mm long. Petals 4, spatulate, 3 - 4 mm long, round at apex. Stamens 6, 4 equal, 2 shorter. Fruit a glabrous 2-chambered pod, obovate to heart-shaped in outline, inflated but somewhat flattened.



### Common Name:

Hoary cress, whitetop

### Color:

White

### Notes:

Hoary cress is considered to be a noxious weed in most Western states. Once established, the strong, horizontal rootstock of these plants makes them very difficult to eradicate and very efficient in competition with native species. Considerable money and effort have been expended in a mostly unsuccessful effort at controlling these plants. Hoary cress blooms from May into August between 4000 and 8000 ft





### 

### Scientific Name:

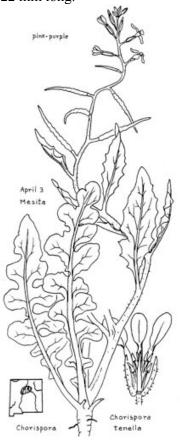
Chorispora tenella

### Size:

10 - 50 cm

### Description:

Mostly erect annual herb, stems branched, leafy. Herbage with gland-tipped hairs. Leaves alternate, with petioles. Lower leaves jaggedly pinnatifid. Upper leaves oblong to lanceolate, with petioles, edges wavy-toothed. Flowers perfect, on upward turning stalks 2 - 6 mm long, in loose clusters. Sepals 4, erect, 4 - 6 mm long. Petals 4, 7 - 12 mm long, blades narrow with a long tapering base, round at apex. Stamens 6, 4 equal, 2 shorter. Fruit a long, tapered, narrow pod, 2 - 4 cm long, often curved, constricted between the seeds, ending in a slender, seedless beak, 8 - 22 mm long.



### Common Name:

Blue mustard

### Color:

Rose purple

### Notes:

The genus name *Chorispora* comes from the Greek *chori*, "separated", and *spora*, "seed". The lumpy seed pod has partitions between 1 - 2 seeded segments. At maturity, it breaks into a number of "minipods". Most plants in the mustard family have pods which simply split in half lengthwise. Blue mustard has a musky odor noticeable in large patches of the plant. When eaten by dairy animals, it can taint the milk. It blooms from March into May between 3500 and 7500 ft.





### 

### Scientific Name: Conringia orientalis

### Size:

20 - 60 cm

### Description:

Erect annual or winter annual herb, stems mostly solitary, glabrous, with a waxy whitish coating. Basal leaves smooth-edged, tapered to the base. Stem leaves alternate, smooth-edged, elliptic, oval or oblong, sessile, leaf bases wrapping the stem, glabrous. Flowers perfect, on upward curving stalks 5 - 15 mm long, in a loose cluster at stem end. Sepals 4, erect, 4 - 6 mm long, glabrous, often reddish tinged. Petals 4, narrowly obovate, 10 - 12 mm long, with a long, tapered, narrow base. Stamens 6, 4 equal, 2 shorter. Fruit a long, narrow, 4-angled pod, 8-12 cm long, 2 - 3 mm in diameter, pointing upward.



### Common Name:

Hare's-ear mustard

### Color:

White to creamy white

### Notes:

Hare's-ear mustard has been naturalized from Eurasia. Wooten and Standley in their 1915 Flora of New Mexico show it localized near Des Moines, NM. Martin and Hutchins in their 1980 A Flora of New Mexico show it in both Colfax and Union counties. By the mid-1990's it appeared in the Manzanos. When mature, its pods are the longest of all the mustards in the Manzanos. Hare's-ear mustard blooms from April into June between 4500 and 7500 ft.

Introduced\*



### 

### Scientific Name:

Descurainia incisa ssp. incisa

### Size:

30 - 100 cm

### Description:

Synonym: Descurainia richardsonii.

Erect annual or biennial herb, stems much branched above with short, branched hairs, mixed with simple hairs and gland-tipped hairs, or almost glabrous. Leaves alternate, pinnate with 2 - 4 pairs of deeply and irregularly incised or toothed leaflets. Flowers perfect, stalked, in small, loose clusters at branch ends, elongating in fruit. Sepals 4, ovate, yellowish, 1 - 2 mm long. Petals 4, obovate, 1.5 - 3 mm long, with a narrow, tapered base. Stamens 6, yellow, 4 equal, 2 shorter. Fruit a linear pod, 7 - 15 mm long, 1 mm wide, with 2 compartments with one row of seeds in each.

### Common Name:

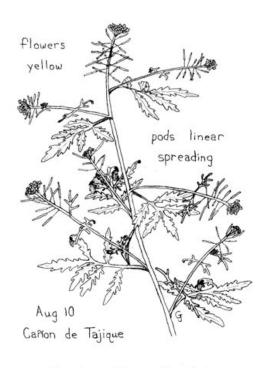
Richardson or mountain tansy mustard

### Color:

Yellow

### Notes:

The genus *Descurainia* is named for Francois Descurain (1658 – 1740), an early French pharmacist and naturalist. There are 6 different species and a total of 13 subspecies of *Descurainia* in New Mexico. There are 3 species in the Manzanos. Richardson tansy mustard blooms from May through August between 6500 and 10000 ft.



Mountain Tansy Mustard Descurainia incisa



### 

### Scientific Name:

Descurainia obtusa

### Size:

50 - 100 cm

### Description:

Erect annual herb, stems branched. Herbage whitish with star-shaped hairs. Leaves alternate, irregularly twice-pinnatifid, the segments rounded, not forming an acute angle at the apex. Flowers perfect, on spreading stalks, in clusters at branch ends, elongating in fruit. Sepals 4, erect. Petals 4, 2 - 3 mm long, barely longer than sepals. Stamens 6, 4 equal, 2 shorter. Fruit a linear pod 12 - 20 mm long, sparsely hairy or almost glabrous, divided into two compartments by a thin membrane, with 2 rows of seeds in each cell.

### Common Name:

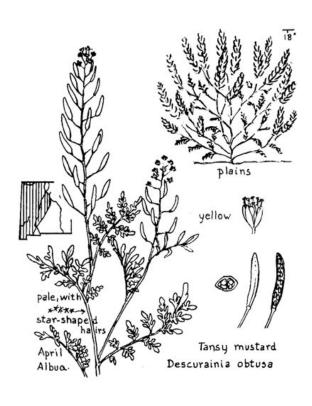
Tansy mustard

### Color:

Light yellow

### Notes:

Plants of the genus *Descurainia* have deeply incised leaves. In *D. obtusa* the resulting segments are not pointed, the apex forming an obtuse angle, hence the species name *obtusa*. This species has 2 rows of seeds in each compartment of its pod. It blooms from May into July between 5500 and 7000 ft.







### 

### Scientific Name:

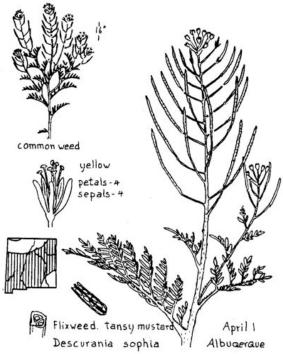
Descurainia sophia

### Size:

30 - 80 cm

### Description:

Erect annual herb, stems usually branched above, with soft branched or star-shaped hairs and often with simple hairs. Leaves alternate, ovate or obovate in outline, 1 - 10 cm long; lower leaves twice or thrice pinnate, with 2 to 6 pinnatifid leaflets, upper smaller and twice pinnate or pinnatifid, the ultimate segments linear. Herbage in flower clusters with starshaped hairs. Flowers perfect, on ascending stalks, in loose clusters at branch ends, elongating in fruit. Sepals 4, erect, 2 - 3 mm long. Petals 4. Stamens 6, 4 equal, 2 shorter. Fruit a slender pod 1 - 3 cm long, about 1 mm wide, pointing upward, divided into 2 compartments by a thin membrane, with one row of seeds per cell.



### Common Name:

Flixweed, tansy mustard

### Color:

Yellow

### Notes:

During the 19th century, the species name *sophia* was the genus name for *Descurainia*. New Mexico's first major flora (1915) by Wooton and Standley does not list *Descurainia*. The term tansy mustard probably derives from the plant's somewhat vague resemblance to the European garden plant tansy, *Tanacetum vulgare* (Asteraceae). Tansy mustard blooms from May through July between 4000 and 8000 ft





### 

### Scientific Name:

Dimorphocarpa wislizenii

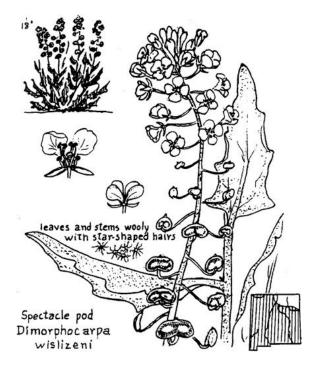
### Size:

20 - 50 cm

### Description:

Synonym: Dithyrea wislizenii.

Erect annual herb, stems sparsely branched. Herbage woolly with star-shaped hairs. Leaves alternate, lanceolate, 2 - 12 cm long, 1 - 3 cm wide, with a wavy-toothed margin. Flowers perfect, on spreading stalks 7 - 12 mm long, in dense clusters at branch ends, elongating in fruit. Sepals 4, spreading. Petals 4, obovate, 5 - 8 mm long, with a tapering base. Stamens 6, 4 equal, 2 shorter. Fruit a 2-celled capsule, divided by a thin, narrow membrane, each cell almost round, flattened, containing a single seed. Fruiting stalks often sinuous.



### Common Name:

Spectacle pod

### Color:

White

### Notes:

This remarkable plant is named for Frederick Wislizenus (1810-1899), a German physician and naturalist, who as a result of a trip to Santa Fe in 1846 during the Mexican War, was captured and held captive in Northern Mexico. The pods are unusual, resembling an old-fashioned pair of pince-nez spectacles. Spectacle pod blooms from May through September between 3500 and 7000 ft.





### 

### Scientific Name:

Draba aurea

### Size:

10 - 40 cm

### Description:

Erect or reclining perennial herb, stems one to several, with coarse, stiff hairs, both simple and branched. Basal leaves oblanceolate, 1 - 5 cm long, 2 - 12 mm wide, with petioles, edges smooth to slightly toothed. Stem leaves alternate, lanceolate to oblanceolate, 1-3 cm long, 3 - 12 mm wide, densely hairy with branched hairs, margins smooth or lightly toothed. Flowers perfect, on ascending stalks, in a cluster at stem end, elongating in fruit. Sepals 4, 2 - 4 mm long, hairy. Petals 4 obovate, 4 - 6 mm long, narrowed at the base, slightly notched at apex. Stamens 6, 4 equal, 2 shorter. Fruit a flattened, twisted pod 8 - 17 mm long, 2 - 4 mm wide, with a style less than 1.5 mm long.



Twisted-pod draba Draba aurea

### Common Name:

Twisted-pod draba, golden whitlowgrass

### Color:

Yellow

### Notes:

New Mexico has 12 species of *Draba*. Several have variously contorted or twisted pods. Differentiation depends on technical features such as the length of the slender cylindrical protuberance at the tip of the pod (style). The closely related *Draba helleriana* is also common in the Manzanos, but the fruit style is greater than 1.5mm. Draba *aurea* blooms from late June through August between 7000 and 11000 ft.

### **New Mexico Native**



### 

### Scientific Name:

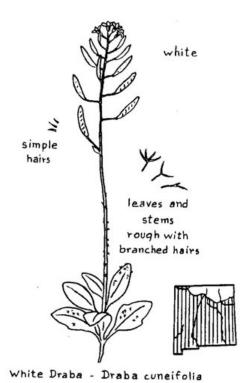
Draba cuneifolia

### Size:

5 - 20 cm

### Description:

Erect annual herb, stems simple or branched, rough with simple, forked or star-shaped hairs. Basal leaves oblanceolate to obovate, 1 - 4 cm long, edges somewhat toothed, rough hairy with forked hairs. Stem leaves smaller, few, alternate, only near the base. Flowers perfect, few, on short hairy stalks, in a loose cluster at stem end, elongating in fruit. Sepals 4, 1 - 3 mm long, with short hairs. Petals 4, 3 - 4 mm long, spatulate, notched at the apex. Stamens 6, 4 equal, 2 shorter. Fruit an upward angled elliptic to oblong pod, 5 - 15 mm long, with simple hairs or glabrous, divided into 2 compartments by a thin membrane.



### Common Name:

Wedge-leaf whitlowgrass

### Color:

White

### Notes:

The species name *cuneifolia* translates from Latin as "wedge-shaped leaves". The leaf bases taper smoothly to a narrow connection with the stem. This whitlowgrass is small, with a slender, almost leafless, stem. Only a few small flowers appear at any one time. Thus, this plant is easily overlooked. It blooms from late March into May between 5000 and 7500 ft.





### 

### Scientific Name:

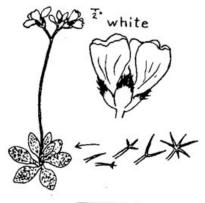
Draba reptans

### Size:

5 - 15 cm

### Description:

Erect annual herb, stems mostly unbranched, with stalked star-shaped hairs near base, glabrous above. Basal leaves obovate, oblanceolate, or spatulate, 1 - 3 cm long, smooth-edged, rounded at the apex, with simple hairs above, star-shaped hairs below. leaves alternate, few, near base, obovate, sessile. Flowers perfect, on ascending glabrous stalks, clustered at stem end. Sepals 4, oblong to linear, 1-2 mm long. Petals 4, obovate, 3-4mm long, tapering to a narrow base. Petals sometimes reduced or absent. Stamens 6, 4 equal, 2 shorter. Fruit a glabrous or somewhat hairy oblong pod 10 - 20 mm long, 1 - 2 mm wide, pointing upward.





Mexican Springs McKinley Co. Summer

Draba reptans

### Common Name:

Smooth or Carolina whitlowgrass

### Color:

White

### Notes:

A whitlow is an inflammation of the deeper tissue of a finger or toe producing a painful sore. Whitlowgrasses were considered a remedy for this condition. *D. reptans* is extremely tiny and usually grows in the midst of other plants. It usually goes unnoticed. It blooms in April and May between 5000 and 7500 ft.





### 

### Scientific Name:

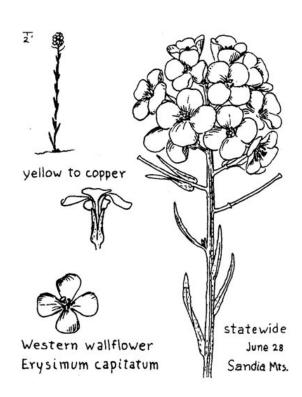
Erysimum capitatum

### Size:

40 - 80 cm

### Description:

Erect biennial herb, stems single at base, branched above. Herbage with a dense covering of forked hairs lying flat. Basal leaves on petioles, lanceolate, 4 - 15 cm long, 4 - 10 mm wide. Stem leaves alternate, sessile, narrow, faintly toothed. Flowers perfect, on stout stalks 4 - 8 mm long, in dense clusters at branch ends. Sepals 4, erect, 8 - 12 mm long. Petals 4, obovate or spatulate, 12 - 20 mm long, tapering to a narrow base. Stamens 6, 4 equal, 2 shorter. Fruit a slender pod 5 - 8 cm long, 2 mm wide, 4-angled, with a persistent 2-lobed stigma at the apex. Fruiting stalks ascending.



### Common Name:

Western wallflower

### Color:

Yellow to orange

### Notes:

Western wall flowers are quite common, not just in the Manzanos, but statewide. They are most commonly yellow, but vary considerably in color, depending on altitude or location, to orange or even maroon. They distinctly resemble their European namesake and mustard family cousin, the English wall flower, *Cheiranthus cheiri*. Long cherished for medicinal properties, wallflowers actually contain heart active glycosides in their seeds, and are not recommended for herbal use. They bloom from May into September between 6000 and 11000 ft.





### 

### Scientific Name:

Lepidium alyssoides var. eastwoodiae

### Size:

40 - 100 cm

### Description:

Erect perennial herb, woody at the base, stems 1 to several from above ground root crown, usually unbranched below the flowers, with short hairs or glabrous. Basal leaves smoothedged, to pinnately lobed, less than 10 cm long. Stem leaves alternate, smooth-edged, narrowly lanceolate to oblanceolate, 4 – 7 mm wide. Flowers numerous, perfect, on short stalks at branch and stem ends. Sepals 4, oblong or ovate, with a broad white margin. Petals 4, 2 – 3 mm long, obovate to almost round. Stamens 6. Fruit glabrous, ovate, 3 – 4 mm long, notched at the apex, with a style protruding from the notch.

# Peppergrass, pepperweed Aug.14 Lepidium alyssoides Torreon

### Common Name:

Pepperweed, peppergrass

### Color:

White

### Notes:

The genus *Lepidium* contains about 175 species with natives on every continent in the world except Australia. North America has 38 species. New Mexico has 12 species and a total of 16 varieties. The common name pepperweed derives from the pungent, peppery flavor of the leaves and especially the seeds, which are used as a pepper. Pepperweed blooms from June into September between 4000 and 7500 ft.





### 

### Scientific Name: Lesquerella fendleri

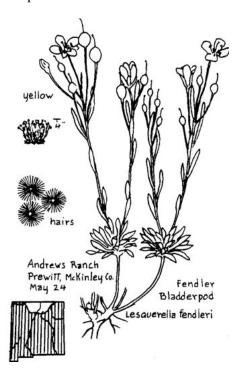
### Size:

5 - 25 cm

### Description:

Synonym: Physaria fendleri.

Perennial herb, stems several, clumped, mostly unbranched. Herbage with a dense covering of star-shaped hairs. Basal leaves elliptic, 1 - 4 cm long, 1 - 6 mm wide, elliptic, edges smooth or slightly toothed, tapering to a slender petiole. Stem leaves mostly linear, alternate, 5 - 25 mm long, 1 - 5 mm wide, tapering to the petiole. Flowers perfect, on straight or sinuous stalks 7 - 15 mm long, in dense clusters at stem ends, the clusters exceeding the leaves. Sepals 4, elliptic to oblong, 5 - 8 mm long. Petals 4, obovate, 6 - 12 mm long, tapering to a narrow base. Fruit an inflated ellipsoid to ovoid two-chambered, glabrous pod.



### Common Name:

Fendler's bladderpod

### Color:

Yellow

### Notes:

The genus Lesquerella is named for Leo Lesquereux (1805-1899), the father of American paleobotany. Lesquereux started his botanical career as an assistant to William Starling Sullivant, America's first great scholar of mosses. Despite profound deafness, Lesquereux became a great botanist and essentially founded the science of paleobotany in the United States. Fendler bladderpod is common throughout New Mexico. It blooms from late April through June between 3500 and 7500 ft.





### 

### Scientific Name:

Lesquerella pinetorum

### Size:

10 - 30 cm

### Description:

**Synonym:** *Physaria pinetorum* 

Perennial herb, stems one to several, erect to Herbage with star-shaped hairs. Basal leaves rhombic to elliptic, 15 - 75 mm long, 3 - 12 mm wide tapering to a long, slender petiole. Stem leaves alternate, spatulate to oblanceolate, 1 - 4 cm long, 2 - 12 mm wide, with petioles. Flowers perfect, on stalks 6 - 12 mm long in dense clusters at stem ends. Sepals 4, ovate or oblong, 4 - 7.5 mm long. Petals 4, spatulate, 6 - 13 mm long, 2 - 4 mm wide. Stamens 6, 4 equal, 2 shorter. ellipsoidal to almost spherical 2-chambered pod, 4 - 8 mm long, glabrous inside and out, with a style 4 - 9 mm long. Fruiting stalks curved or sinuous.

### Common Name:

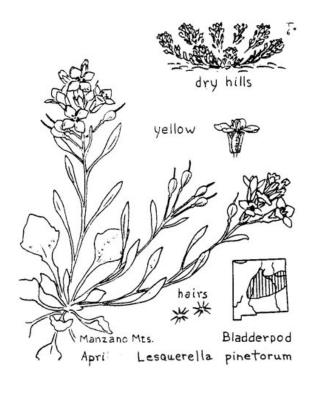
Sierra Blanca bladderpod

### Color:

Yellow

### Notes:

This is the most common bladderpod in the Manzanos. In both the Manzano and Sandia Mountains this plant often occurs as a reduced form of a generally larger plant, particularly at higher altitudes, complicating its identification. Plants in this area identified as *L.ovalifolia* are really *L.pinetorum*. The first specimen of record (holotype) which defined the characteristics of this plant was from the Sierra Blanca area, Lincoln County, in August 1907. Sierra Blanca bladderpod blooms from April into June between 5000 and 10000 ft.







### 

### Scientific Name: Nasturtium officinale

### Size:

10 - 80 cm

### Description:

**Synonym**: Rorippa nasturtium-aquaticum.

Aquatic perennial herb, stems succulent, creeping or floating, glabrous. Leaves pinnately compound (sometimes pinnately lobed), with 3 - 9 rounded, wavy-edged, fleshy leaflets, the end leaflet larger. Flowers perfect, on stalks, in dense clusters, elongating in fruit. Sepals 4, oblong, 2 - 3 mm long, glabrous. Petals 4, spatulate to oblanceolate, 3 - 5 mm long. Stamens 6, 4 equal, 2 shorter. Fruit a linear, cylindrical 2-chambered pod, 10 - 18 mm long, about 2 mm wide, with a short style. Fruiting stalks 6 - 12 mm long, mostly perpendicular to central axis.

# May 20 white with purple lines streams Nov. 6 Watercress Sandia Mts. Rorippa nasturtium-aquaticum

### Common Name:

Watercress

### Color:

White

### Notes:

Watercress is an aquatic plant, requiring running water or a seep. It is edible. In fact, its tangy flavor has made it a popular sandwich and salad addition. Unfortunately, most mountain water sources, certainly those in the Manzanos, have been polluted by the protozoan parasite, *Giardia*, which causes gastrointestinal disruption. It is no longer safe to eat uncooked, wild watercress. Watercress blooms from late April into August between 5000 and 8000 ft.



### 

### Scientific Name: Pennellia longifolia

### Size:

50 - 100 cm

### Description:

Erect biennial herb, stems long, slender, straight, branched above, with simple or forked hairs below, glabrous above. Basal leaves on petioles, oblanceolate, 4 - 8 cm long, present only first year. Stem leaves alternate, few, linear, mostly sessile, lower with simple or branched hairs, upper glabrous. Flowers perfect, on stalks, distantly spaced along stem and branch ends, usually on one side. Calyx urn-shaped, with 4 distinct erect sepals, glabrous, purplish. Petals 4, strap-shaped, 4.5 - 6 mm long, barely exceeding sepals. Fruiting stalks arching downward, 8 - 11mm long, expanded at the apex. Pods narrowly cylindrical, glabrous, 6 - 8 cm long, pendant.

# petals and sepals purplish flowers don't really open Longleaf false thelypodium

Pennellia longifolia

### Common Name:

Longleaf false thelypodium

### Color:

Purplish

### Notes:

The genus Pennellia is named for Francis Whittier Pennell (1886-1952), curator of botany at the Academy of Natural Science in Philadelphia, and authority on the Figwort family (Scrophulariaceae). Pennellia is represented by 8 species in North America, all from the American Southwest and Mexico. New Mexico has 2 species. The flowers of P. longifolia have petals scarcely longer than the supporting sepals. The flowers seem to go from bud directly to fruit. The closely related Pennellia micrantha also occurs in the Manzanos, but its pods point stiffly upward. False thelododium blooms from July into September between 6000 and 9000 ft.



### 

### Scientific Name:

Rorippa sinuata

### Size:

10 - 50 cm

### Description:

Perennial herb, stems few to numerous, reclining, glabrous or with short puffy hairs. Leaves alternate, oblong to oblanceolate, 3 - 8 cm long, 5 - 15 mm wide, edges wavy to pinnatifid, glabrous above, with some short, puffy hairs below. Lower leaves with petioles, middle and upper sessile, sometimes with bases wrapping the stem. Flowers perfect, on stalks, in clusters from leaf axils, elongating in fruit. Sepals 4, 2.5 - 4.5 mm long. Petals 4, 3 - 6 mm long, tapering to the base. Stamens 6, 4 equal, 2 shorter. Fruit a cylindrical pod, 6 – 12mm long, 1 - 2 mm wide, glabrous or hairy, with a stubby style.

# Spreading yellowcress Color: Yellow

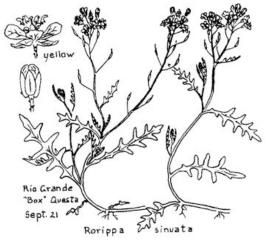
Common Name:

### Notes:

Spreading yellowcress is occasional in the Manzanos. It prefers moist areas along streams. The plants are generally spindly, lying on the ground or draped among other plants. Its "miniature frankfurter" pods and incised leaves help in identification. It blooms from May into July between 5000 and 8000 ft.







### 

### Scientific Name:

Schoenocrambe linearifolia

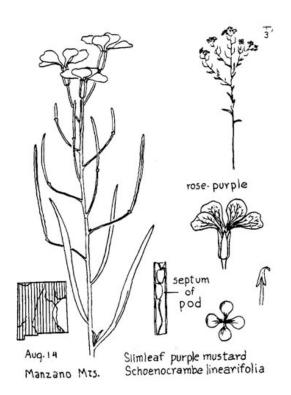
### Size:

40 - 100 cm

### Description:

Synonym: Sisymbrium linearifolium.

Erect perennial herb, stems branched above. Herbage glabrous. Basal leaves oblanceolate to spatulate, 5 - 10 cm long. Stem leaves alternate, linear, 5 - 10 cm long, often folded, with smooth edges. Flowers perfect, on upward pointing stalks, in loose clusters at end of stem or from upper leaf axils. Sepals 4, 5 - 6 mm long, lanceolate. Petals 4, spatulate, tapering to a long, narrow base, much exceeding the sepals. Stamens 6, 4 equal, 2 shorter. Fruit a slender cylindrical pod 4 - 7 cm long, pointing upward, with 2 compartments each with one row of seeds. Fruiting stalks slender.



### Common Name:

Slimleaf purple mustard

### Color:

Light purple

### Notes:

When not in flower, the slender stem and long, narrow, often folded leaves of purple mustard give the impression of a grass. Its petals are quite large compared to many other mustards. Purple is not a common color among mustards. Purple mustard blooms from June into September between 4500 and 8000 ft.





### Scientific Name:

Sisymbrium altissimum

### Size:

30 - 100 cm

### Description:

Erect annual herb, stems branched above, with coarse, stiff hairs near base. Lowest leaves coarsely pinnatifid or lobed, 1 - 20 cm long, with coarse, stiff hairs. Upper leaves pinnatifid into long linear segments. Flowers perfect, on stalks 4 - 10 mm long, in loose clusters at branch ends. Sepals 4, 4 - 5 mm long, obovate to spatulate, tapering to a narrow base. Stamens 6, 4 equal, 2 shorter. Fruit a cylindrical 2-chambered pod 5 - 9 cm long, 1 - 1.5 mm wide. Fruiting stalks stout, spreading. Pods extending at same angle as stalk.

### Common Name:

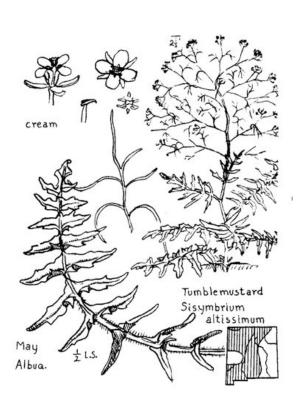
**Tumblemustard** 

### Color:

Pale yellow

### Notes:

When mature, the plants can be uprooted by the wind. As they tumble, seed is distributed. This plant is also commonly called Jim Hill mustard. Many people thought the plants spread into the West along railroad tracks from the East, so they named it after James J. Hill (1838-1916), a Minnesota railroad magnate of the late 19th century. It blooms from May into August between 5000 and 7000 ft.







### 

### Scientific Name:

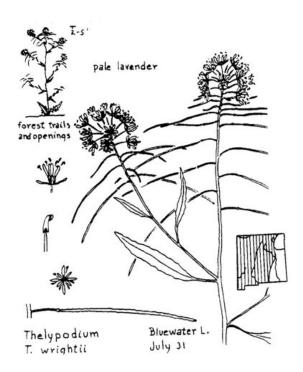
Thelypodium wrightii

### Size:

20 - 150 cm

### Description:

Erect biennial herb, stems with many slender branches. Herbage glabrous. Basal leaves 10 - 15 cm long, pinnatifid. Stem leaves linear-lanceolate, 3 - 9 cm long, 2 - 20 mm wide, pinnatifid, wavy-edged or almost smooth-edged. Flowers perfect, on slender, spreading to descending stalks, in dense clusters at branch ends. Sepals 4, about 5 mm long, erect. Petals 4, oblanceolate, exceeding the sepals, tapering to a narrow base. Stamens 6, almost equal. Fruit a glabrous, flattened, somewhat lumpy pod 3 - 7.5 cm long, 1 - 1.5 mm wide, with 2 chambers separated by a thin membrane. Fruiting stalks and fruit horizontal or somewhat bent downwards.



### Common Name:

Wright's thelypodium

### Color:

White to lavender

### Notes:

The genus *Thelypodium* is native to North America and contains 18 species, mostly from the western United States. New Mexico has 2 species. Wright's thelypodium is tall, but the stems, branches and leaves are slender, giving the plant a very delicate appearance. Its "cotton ball" flowers at branch tips are distinctive. It blooms from June through September between 6500 and 8500 ft.





# 

#### Scientific Name:

Cylindropuntia imbricata

#### Size:

50 - 200 cm

#### **Description:**

Synonym: Opuntia imbricata

Stems erect, fleshy or partly woody, jointed, joints cylindrical, 12 - 35 cm long, 2 - 3 cm in diameter, with prominent tubercles, 2.5 - 5 cm long. Spine nodes with numerous fine barbed hairs and 10 to 30 spines, these red, pink or brown, 10 - 30 mm long, barbed. Flowers open by day, conspicuous, 5 - 7 cm wide, petaloid parts reddish-purple. Fruit yellow, fleshy, obovoid, 2.5 - 4 cm long, with tubercles and spine nodes, with fine, barbed hairs, but no spines.

#### Common Name:

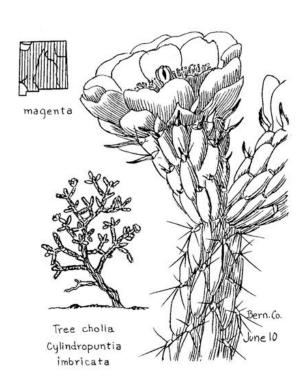
Tree cholla

#### Color:

Magenta

#### Notes:

The chollas are characterized by their cylindrical, jointed stems. In some species the joints are weak allowing branches to break off easily. These free joints often root, providing a secondary method of proliferation. As with other erect chollas, dead branches of tree cholla reveal the woody "skeleton" with diamond shaped holes. Tree cholla is quite hardy, but often turns purplish in cold. It blooms from late May through July between 4000 and 7500 ft.





# 

# Scientific Name:

Echinocereus coccineus

#### Size:

5 - 30 cm

#### Description:

Stems glabrous, cylindrical, 2.5 – 5 cm in diameter, usually branching, often forming dense mounds. Stems with 5 - 12 ribs, straight or composed of a sequence of tubercles (conical mounds). Central and radial spines similar. Central spines 0 - 4, with an angular cross section, 1 - 7 cm long. Radial spines 5 - 20, with a round cross section. Flowers broadly funnel-shaped, 3 - 10 cm long, 3 - 8 cm in diameter, erupting through the skin below stem tips. Stamens numerous. Stigma lobes 6 - 12, green. Fruit somewhat spherical, juicy, with spines. Fruit reddens with age, spines deciduous.

#### Common Name:

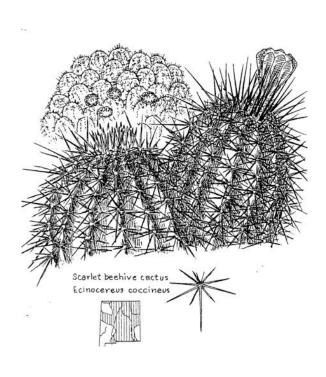
Claret cup cactus, hedgehog

#### Color:

Deep red

#### Notes:

The genus name *Echinocereus* comes from the Greek *echinos*, "hedgehog" and *cereus*, a genus of shrubby, ribbed cacti. *Echinocereus* cacti as a group are referred to as hedgehogs. The genus contains about 60 species. New Mexico has 11 species and a total of 18 varieties. The species name *coccineus* is Latin for "deep red". The claret cup cacti, including *E. coccineus* and *E. triglochidiatus*, have spectacular funnel-shaped red flowers. The color and flower shape are adaptations for pollination by hummingbirds, unusual in cacti. Claret cup cactus blooms from mid-May into June between 4000 and 9000 ft.





# 

# Scientific Name:

Echinocereus fendleri

#### Size:

8 - 30 cm

#### Description:

Plant often solitary, sometimes in clumps, stems egg-shaped to cylindrical, 4-7.5 cm in diameter, soft and flabby, with 7-10 ribs. Spines not obscuring stems. Central spine 0 or 1, dark, lightening with age, 1-4 cm long, straight or slightly curved. Radial spines 5-9, whitish, straight, spreading, 1-2 cm long. Flowers borne on upper half of stems, funnel-shaped, 5-7 cm long and wide. Inner petals magenta, smooth edged. Outer petaloid parts with pinkish edges and brownish mid-stripe. Anthers yellow, stigma lobes green. Ovary tube with white spines about 1 cm long. Fruit green turning red, round, fleshy.

# Fendler hedgehag, Strawberry cactus Echinocereus fendleri

#### Common Name:

Fendler hedgehog, strawberry cactus

#### Color:

Magenta

#### Notes:

The flowers of this *Echinocereus* are quite large and extremely attractive. It is easy to spot these cacti blooming as far away as 50 yards. The fruit of this cactus is edible. Reportedly the Hopis use the fruits not only fresh, but also dry them for later use as a sweetener. Fendler hedgehog blooms from late April into June between 6000 and 8000 ft.





# 

#### Scientific Name:

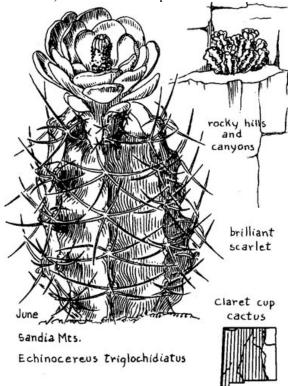
Echinocereus triglochidiatus var. triglochidiatus

Size:

10 - 30 cm

#### Description:

Stems sometimes solitary, often several, sometimes many, cylindrical, 5 - 10 cm in diameter, 5 - 20 cm tall, wrinkled, with 6 - 8 (usually 7) ribs, somewhat swollen at spine nodes. Spines all radial, 2 - 6 (commonly 3) per node, ashy gray to dark, 1 - 7 cm long, 2 - 3 mm in diameter, stout, angled, often flattened, grooved on upper surface. Flowers borne below stem tips, tubular funnel-shaped 4 - 8 cm long, 2.5 - 6 cm in diameter, staying open for several days, petals stiff, waxy, blunt. Petaloid segments at flower base greenish, tipped with white wool and a few short spines. Fruit round to obovoid 25 - 32 mm long, 18 - 25 mm in diameter, with deciduous spines.



#### Common Name:

Claret cup cactus

#### Color:

Scarlet

#### Notes:

The species name *triglochidiatus* translates from Latin as "with three spines". The spines are often in clusters of 3, but clusters of 4, 5, or 6 are not unusual. The spines are long and very stout. The petals are thick, stout and longer lasting than those of many cacti. This cactus is not common in the Manzanos. It blooms in May between 4500 and 7500 ft.





# 

#### Scientific Name:

Echinocereus viridiflorus

#### Size:

2 - 12 cm

#### Description:

Stems solitary or in small clusters (when young), almost spherical to cylindrical,  $1-5\,\mathrm{cm}$  in diameter with  $8-16\,\mathrm{ribs}$  composed of conical mounds. Central spines 0-4, red, brown or cream,  $10-25\,\mathrm{mm}$  long. Radial spines 8-20, whitish, yellow or reddish,  $6-18\,\mathrm{mm}$  long, typically arranged in a plane flat against the surface. Flowers arising on sides of stems, funnel-shaped,  $2.5-3\,\mathrm{cm}$  long and wide. Outer petaloid parts linear with brownish midline, yellow to greenish at edges. Inner ones greenish yellow with darker midline. Stamens numerous, greenish. Stigma lobes 6-10, fat, green. Fruit spheroid, green, spiny.

#### Common Name:

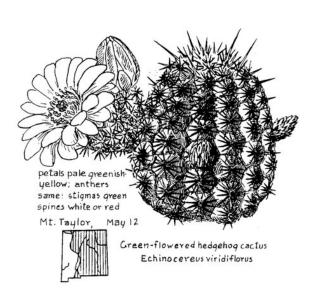
Green-flowered hedgehog, green pitaya

#### Color:

Greenish yellow

#### Notes:

The green-flowered hedgehog ranges farther north than any other member of the genus *Echinocereus*, reaching as far as the inhospitable prairies of Wyoming and South Dakota. Its green flowers usually borne on the sides of the stems rather than near the tips make it easy to recognize. It blooms from mid-April through May between 3500 and 6500 ft.





# 

# Scientific Name:

Escobaria vivipara var. neomexicana

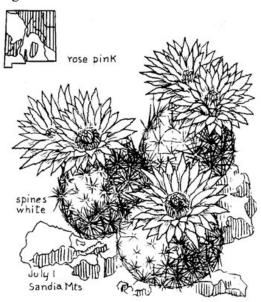
#### Size:

4 - 10 cm

# **Description:**

**Synonyms**: Coryphantha vivipara, Mammillaria vivipara.

Stems single or in clumps, spherical or ovoid, 4 - 10 cm tall, up to 6 cm in diameter, with spirally arranged tubercles not forming ribs, these grooved from the tip to the middle or base. Older tubercles often become corky and deciduous. Central spines 3 - 7, orange to brown, divergent, stiff, straight. Radial spines 14 - 18, white, thin. Spines densely cover stems. Flowers near tip of stem, up to 6 cm long, up to 5 cm in diameter. Floral bracts intergrade with sepals which transition to petals, outer sepals fringed with hairs. Fruit not breaking open, spineless, green, up to 2.5 cm long and 1.5 cm in diameter.



Pincushion, ball cactus Escobaria vivipara var neo mexicana syns, Coryphantha v., Mammillaria v.

#### Common Name:

Pincushion cactus, beehive cactus

#### Color:

Pink

#### Notes:

The genus *Escobaria* is named for two Mexican botanists, Romulo Escobar and Numa Escobar. The genus is closely related to two other genera, *Coryphantha* and *Mammillaria*. This cactus has been placed in all 3 genera. The controversy continues. The species name *vivipara* translates to "bearing live young". The stems can form large clumps with larger, older stems together with smaller younger stems, hence the plant is sometimes called hen-and-chicks. It flowers in May and June between 5000 and 7500 ft.





# 

#### Scientific Name: Grusonia clavata

#### Size:

5 - 15 cm

#### Description:

Synonym: Opuntia clavata.

Plants forming a low mat. Stem segments upright to leaning, club-shaped, narrowed at the base, 3 - 8 cm long, 1.5 - 3 cm in diameter, with ovate tubercles. Spines at tubercle apex. Central spines 4 - 8; 1 - 3 ascending, white to yellowish, angular flattened to round; 3 - 5 bent downward, white, flattened, 12 - 35 mm long, tapering evenly to a point. Radial spines 6 - 13, 5- 15 mm long, round, slender. Spine nodes also with yellowish white, fine, barbed hairs. Flowers up to 2.5 cm long, 5 cm in diameter. Fruit barrel shaped, yellow, 3 - 5 cm long, 1.5- 2.5 cm in diameter, without spines, but with fine, barbed hairs.

# June II Plains and messas

#### Common Name:

Dagger cholla

#### Color:

Yellow

#### Notes:

Most of the cacti called "chollas" are shrub-like, with long cylindrical stems. Dagger cholla is a very low growing plant. Its stems are short and cylindrical, but it forms a dense mat. A quick look at its main spines, angled and tapered, very knife-like, justifies its name as dagger cholla. It blooms from May into June between 6000 and 8000 ft.





# 

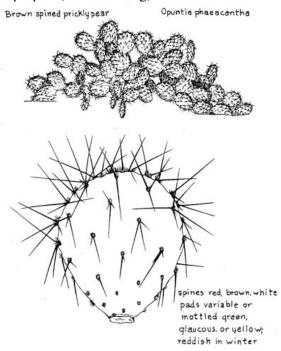
# Scientific Name: Opuntia phaeacantha

#### Size:

20 - 50 cm

#### Description:

Plants branched, generally along the ground, Stem segments flattened, forming clumps. round to obovate, 10 - 20 cm long, 8 - 18 cm wide, 1 - 1.5 cm thick, blue-green. Leaves conical, less than 9 mm long, falling early. Spine nodes elliptical, 2 - 2.5 cm apart. Spines 1 - 10 on nodes of upper three-fourths of stem segments, stout, straight, spreading or bent backwards, round to flattened, tapered, yellow or gray at tip, red or brown at base, with small weaker spines below. Nodes also with fine, barbed hair-like spines about 1 cm long, brown, reddish, or yellowish brown. Flowers 6 - 8 cm long, 6 - 8 cm in diameter, with spine nodes on the exterior. Fruit oboyate, smooth, fleshy, red to purplish, 3 - 8 cm long, 2 - 4 cm in diameter.



#### Common Name:

Brown-spined prickly pear

#### Color:

Yellow

#### Notes:

The genus *Opuntia* is quite large and diverse. Plants are very hardy and adaptable. The pad size, flower size, plant size, spines, and other features vary according to environmental conditions, making these cacti a taxonomic nightmare. *O. phaeacantha* blooms from May into July between 4000 and 8000 ft.





# 

# Scientific Name:

Opuntia polyacantha

#### Size:

5 - 15 cm

#### Description:

Plants lying on the ground, much branched, stem segments glabrous, round to broadly obovate, 5-13 cm long, 3.5-10 cm wide, about 1 cm think, forming clumps. Spine nodes set closely together. Spines quite variable, 1-15 per node, needle-like, 2-6 cm long, straight, curving downward or bent backwards, with fine, short, yellow, hair-like spines below. Flowers yellow, 4.5-8.5 cm in diameter, 4.5-6 cm long. Stigma lobes green, anthers pale yellow. Ovary obovoid to almost spherical, up to 4 cm long and 2 cm wide, with fine, short, yellow spines and slender spines up to 1 cm long. Fruit tan to brown, dry.

# Sandia Mts. June 4 yellow Prickly pear Opuntia polyacantha

#### Common Name:

Plains prickly pear, starvation cactus

#### Color:

Yellow

#### Notes:

Plains prickly pear is a very wide ranging cactus in most of the western United States. It ranges far north of the Canadian border, but barely reaches into Mexico. It may be the most northern of all cacti. It is possibly the spiniest of all prickly pears, but can also be found with many of the lower nodes virtually spineless. It blooms in May and June between 5000 and 8000 ft.





# 

#### Scientific Name:

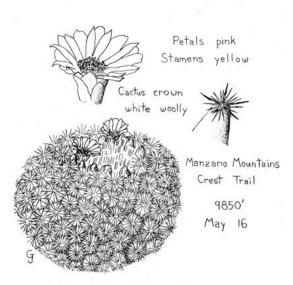
Pediocactus simpsonii var. simpsonii

#### Size:

3 - 15 cm (diameter)

#### **Description:**

Stems solitary or clumped, ovoid to spherical, somewhat concave on top, 3 - 15 cm in diameter, surface covered ungrooved, conical, spirally arranged tubercles, 2 - 12 mm long, 2 -11 mm wide. Spines at tubercle apex, obscuring stems. Central spines 4 - 10, tips reddish-brown to blackish, diverging, straight, 5 - 25 mm long. Radial spines 15 - 35, slender, straight, white, 3 - 15 mm long. Flowers borne at the highest point of the stem (before central depression), often forming a ring in robust plants. Flowers bell-shaped, 12 - 30 mm long, 15 - 25 mm in diameter. Inner petaloid parts pointed, bent back; outer sepaloid parts brownish with whitish margin, without spines. Fruit cylindrical, 5 - 10 mm in diameter, dry at maturity.



Mountain ball cactus Pediocactus simpsonii

#### Common Name:

Mountain ball cactus, mountain cactus

#### Color:

Pink (sometimes white, magenta, yellow)

#### Notes:

The genus *Pediocactus* has only 8 species. They are all more or less spherical, small cacti. They tend to occupy peculiar and obscure ecological niches. They are rarely observed by most people. New Mexico has 2 species. P. simpsonii and P. knowltonii. Pediocactus knowltonii is one of the rarest cacti in the world, known only from one very small area near the Los Pinos River in San Juan County. Pediocactus simpsonii is the widest ranging of the genus. It blooms from early May into June between 6000 and 10000 ft.

#### New Mexico Native



# 

# Scientific Name:

Sclerocactus papyracanthus

#### Size:

3 - 7 cm

#### Description:

**Synonym**: Pediocactus papyracanthus

Stems solitary, cylindrical, 1 - 2 cm in diameter, surface covered with conical tubercles up to 2 mm high. Central spines 1 - 4, white to gray, one being large, 20 - 30 mm long, strongly flattened, papery, curved, twisted. Radial spines 6 - 8, straight, rigid, white to gray. Flowers bell-shaped, 2 - 3 cm long, 2 - 2.5 cm in diameter, not opening widely. Petaloid parts creamy white with brown to greenish midline. Fruit spineless, almost spherical, green, growing tan and dry with age.

#### Common Name:

Grama grass cactus

#### Color:

Whitish

#### Notes:

This diminutive cactus is definitely unusual in the Manzanos. As with other members of the genus *Sclerocactus*, the grama grass cactus has been negatively affected by unmanaged collection. The 130 nations of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) now ban international trade of this cactus. The species name *papyracanthus* means "paper spine." The flat, papery, curved or twisted spines are quite distinctive. The flower "petals" are whitish with a greenish to brownish stripe on the back. Grama grass cactus blooms in April and May between 6000 and 7000 ft.



Grama grass cactus Pediocactus papyracanthus syn. Toumeya papyracantha

#### **New Mexico Native**



# **CAESALPINIACEAE** -- Caesalpinia Family

# 

# Scientific Name:

Pomaria jamesii

#### Size:

10 - 40 cm

#### Description:

**Synonyms**: Hoffmannseggia jamesii, Caesalpinia jamesii.

Erect perennial herb, stems branched, with fine, soft, short hairs and orange to black gland dots. Leaves alternate, odd-pinnate with 5 - 7 leaflets, each leaflet even-pinnate with 10 - 20 closely packed oblong pinnules 3 - 5 mm long. Flowers perfect, in loose, linear clusters. Calyx with 5 nearly equal, linear-lanceolate lobes. Petals 5, similar in shape, overlapping, less than twice as long as calyx. Pods crescent-shaped, 20 - 25 mm long, 8 - 9 mm wide, flattened, with black gland dots.

# orange gland dots below yellow with red markings June 21 Abó Plains James rushpea Pomaria jamesii

#### Common Name:

James rushpea

#### Color:

Yellow with red

#### Notes:

This plant has undergone a number of name changes. It has been placed in the genus *Hoffmannseggia*, named for a German botanist, J. C. Hoffmannsegg (1766-1849). It has been placed in the genus *Caesalpinia*, named for Andrea Caesalpino (1519-1603), an Italian botanist, whom many think was the first significant botanist (not herbalist) since the ancient Greeks. Finally it has been placed in *Pomaria*, a transliteration of another genus *Moparia*. Regardless of its name, it blooms from May through July between 4000 and 6500 ft





# **CAMPANULACEAE** -- Bellflower Family

# 

# Scientific Name:

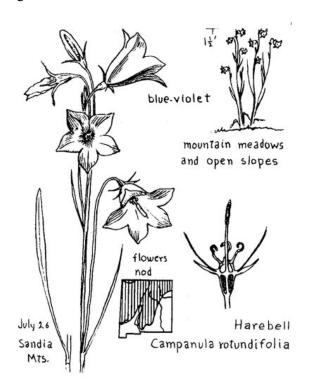
Campanula rotundifolia

#### Size:

15 - 50 cm

#### Description:

Ascending to erect perennial herb, stems 1 to several, glabrous above, sometimes finely hairy below. Basal leaves broadly oblanceolate or ovate to almost round, 1 - 3 cm long, 5 - 15 mm wide, with petioles 1 - 7 cm long, early deciduous. Lower stem leaves on petioles, lanceolate to linear, 2 - 9 cm long, 5 - 10 mm wide; upper linear, sessile, 1 - 7 cm long, 1 - 5 mm wide. Flowers perfect, on stalks, solitary from upper leaf axils or in loose clusters, often Calyx with 5 linear or narrowly drooping. triangular lobes 4 - 8 mm long. Corolla bellshaped, 12 - 20 mm long, with 5 erect, ovate lobes. Stamens 5, distinct. Pistil 1, style 1, stigma 3 - 5 lobed.



#### Common Name:

Harebell, bluebell of Scotland

#### Color:

Light blue-violet

#### Notes:

The genus name *Campanula* is Latin for little bell, referring to the shape of the flowers. The species name *rotundifolia* comes from the Latin *rotundus*, "round" and *-folius*, "leafed", describing the round basal leaves. The basal leaves are rarely observed since they are early deciduous and fall before the flowers appear. The handsome and delicate flowers are often drooping. Harebells bloom from June into September between 7000 and 10000 ft.





# **CAMPANULACEAE** -- Bellflower Family

# 

#### Scientific Name: Triodanis perfoliata

#### Size:

15 - 50 cm

#### **Description:**

Erect annual herb, stems angled, sometimes with ascending branches, with long, stiff hairs on the angles. Leaves alternate, 5 - 20 mm long, 5 - 25 mm wide, with wavy-toothed edges, the upper broadly ovate to round, sessile with bases wrapping stem, palmately veined; the lower ovate, sometimes with petioles. perfect, mostly solitary in leaf axils, sessile. Early flowers with rudimentary corollas, selffertilizing, not opening, sepals 3 - 5, unequal. Later flowers with 5 distinct, unequal lanceolate sepals 3 - 6 mm long with pointed tips. Corolla broadly funnel-shaped 6 - 12 mm long, deeply 5-lobed. Stamens 5, distinct. Fruit an elliptic to oblong capsule.

# blue canyon sides, rocky hills May 20 Animas Mts. Venus' looking glass Triodanis perfoliata

# Common Name:

Venus' looking-glass

#### Color:

Violet

#### Notes:

The species name *perfoliata* comes from Latin and means "through the leaf". The upper leaves of Venus' looking-glass have bases which wrap around the stem, making it appear as though the stem grows through the leaves. The first flowers which form on these plants are deformed and never really open. Self-fertilization occurs within the closed flowers. Later in the season the "normal" flowers appear. Considering the typically small nature of the leaves, the flowers are spectacular. Venus' looking-glass is rarely seen in the Manzanos. It blooms from early June through July between 5000 and 8000 ft.





# **CANNABACEAE** -- Hemp Family

# 

#### Scientific Name:

Humulus lupulus var. neomexicanus

#### Size:

Vine

#### Description:

Perennial herbaceous vine, stems rough. Leaves opposite, ovate to circular in outline, cordate, 3 -15 cm long and wide, palmately 3- or 5-lobed, the voids between lobes broad and open, lobes toothed. Leaf upper surface somewhat rough, lower surface with yellow resin dots. Petioles shorter than blades. Flowers inconspicuous. Male and female flowers on separate plants. Staminate (male) flowers in leafy, loose clusters in upper leaf axils. Sepals 5, separate. Corolla Pistillate (female) flowers in dense absent. clusters in axils. Sepals 5, joined. Corolla Fruit resembles a green, leafy pine absent. cone.

#### Common Name:

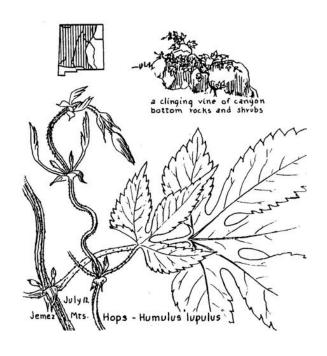
Hop

#### Color:

Green

#### Notes:

The hemp family contains only three species, *Humulus lupulus*, and two species of marijuana, *Cannabis sativa* and *Cannabis indica*. Strangely, all three are related to intoxication. The marijuanas are notorious illegal drugs and hops are used in the flavoring and bittering of beer. Hops bloom in July and August between 6000 and 7500 ft.





# **CAPRIFOLIACEAE** -- Honeysuckle Family

# 

# Scientific Name:

Sambucus racemosa var. microbotrys

#### Size:

100 - 200 cm

#### Description:

Synonym: Sambucus microbotrys.

Perennial shrub, twigs and young branches with conspicuous pith. Branches and leaves glabrous. Leaves opposite, odd-pinnately compound, leaflets 5 - 7, ovate to ovate-lanceolate, 6 - 12 cm long, with pointed tips and rounded bases, edges coarsely toothed. Flowers perfect, in dense ovoid or pyramidal clusters 4 - 7 cm wide, at stem ends. Sepals 3 - 5, minute. Corolla round, flat, with 3 - 5 equal lobes, these much longer than the tube. Stamens 5. Fruit bright red, 4 - 5 mm in diameter.



#### Common Name:

Red elderberry

#### Color:

White to cream

#### Notes:

Elderberry bushes vary in size from a single twig to large shrubs taller and wider than a person. The berries of several varieties of elder berry are eaten by birds and bears, and wines and jellies are made by enterprising humans. Red elderberry, however, is considered toxic, particularly leaves, stems, and roots. It blooms in June and early July between 8000 and 11000 ft





# **CAPRIFOLIACEAE** -- Honeysuckle Family

# 

#### Scientific Name:

Symphoricarpos rotundifolius

#### Size:

50 - 150 cm

#### Description:

**Synonym:** Symphoricarpos oreophilus

Shrub, stems much branched, bark peeling; young twigs glabrous. Leaves opposite, 1 - 3 cm long, oval, toothed or with smooth edges, mostly glabrous, with petioles 2 mm long, stipules none. Flowers occur singly or in pairs in leaf axils, or sometimes in few-flowered clusters at branch ends. Calyx lobes 5, not equal, up to 1 mm long, glabrous. Corolla funnel form, somewhat irregular, 10 - 15 mm long, 5-lobed, the lobes much shorter than the tube, this glabrous or somewhat hairy inside. Stamens 4 or 5, not exceeding the tube. Ovary inferior, with 4 cells, 2 usually functional. Fruit an ellipsoid white berry.

# pink June 28 Sandia Mts. Snowberry Symphoricarpos oreophilus var. utahensis

#### Common Name:

Mountain snowberry

#### Color:

White to pink

#### Notes:

The genus name *Symphoricarpos* translates from Greek as "to bear together". The creamy white flowers almost always occur in pairs which droop from the branches as do the distinctive white berries. Snowberry bushes are browsed by deer and the berries are harvested by numerous birds. They bloom from June into August between 6500 and 9000 ft.





# **CARYOPHYLLACEAE** -- Pink Family

# 

# Scientific Name: Arenaria fendleri

#### Size:

10 - 30 cm

#### Description:

Synonym: Eremogone fendleri

Erect to ascending perennial herb, stems clumped, with gland-tipped hairs above. Basal leaves 4 - 10 cm long, grass-like, pointed, pungent. Stem leaves opposite, 3 - 5 pairs, grass-like, reduced above. Flowers on stalks 10 - 15 mm long in open clusters of 2 to several at stem ends. Sepals 5, mostly distinct, lanceolate to linear-lanceolate, 4 - 6 mm long, with papery margins. Petals 5, oblong, 5 - 8 mm long, sometimes notched at the tip. Stamens 10. Pistil 1, styles 3. Fruit a capsule, 6-toothed, ellipsoid.

#### Common Name:

Fendler's sandwort

#### Color:

White

#### Notes:

Fendler's sandwort is distinctive with its sharp-pointed grass-like leaves and its white flowers with 5 petals and 10 stamens. This species is actually a group of at least 7 varieties. New Mexico has 3 of them. The suffix "wort" often engenders feelings that the plant is somehow ugly or unpleasant, but it is only an ancient word meaning "plant". Fendler's sandwort blooms from July into September between 7000 and 10000 ft.

