

Acroptilon repens

Common name: Russian knapweed Family: Asteraceae

Life Cycle: Perennial

Flowering Period: Late spring to early summer

Description: Shoots are erect, branched and are typically 1 to 3 feet tall when mature. Leaves on the lower portion of the stem are 2 to 4 inches long and deeply lobed, while upper leaves are smaller and less lobed with smooth margins. Dense grey hairs cover the surface of both shoots and leaves. Flower heads occur on shoot tips, and are urn-shaped, generally 1/4 to 1/2 inch in diameter with smooth papery bracts. Flower color can range from pink to lavender or white. Seeds are covered with many fine hairs and have a pappus on the apex. Roots grow vertically and horizontally in the soil and have a brown to black scaly appearance, especially near the soil surface. These black roots can be used to distinguish Russian knapweed from other closely related highly invasive knapweeds.



Centaurea diffusa

Common Name: Diffuse Knapweed

Life Cycle: Annual to perennial

Family: Asteraceae

Flowering Period: Late spring to summer

Description: Annual, biennial, or short-lived perennial forb. During the juvenile stage, rosette with deeply divided basal leaves borne on short stalks on a central crown with a taproot. At maturity produces 1 upright stem, rarely 2. Stems are 1 to 3 feet (0.3-1 m) tall, with numerous, spreading branches that give the plant a ball-shaped appearance and tumble-weed mobility when broken off. Stem leaves on diffuse knapweed are stalkless, getting smaller and less divided higher up the stem. Flowerheads are solitary or borne in clusters of 2 or 3 at the ends of branches. Flowerheads are 3 to 6 mm in diameter and 8 to 11 mm long, excluding spines and flowers. Bracts are edged with a fringe of spines, with a longer 1.5 to 4 mm, erect spine at the tip. Seeds are achenes, 2 to 3 mm long with a plume of bristle-like hairs that vary from scalelike to 1/8 the length of the seed



Centaurea solstitialis

Common Name: Yellow Starthistle

Family: Asteraceae

Life Cycle: Annual, biennial, short lived perennial

Flowering Period: Summer to fall

Description: Stems are stiff and erect, 6 to 72 inches (15-200 cm) in height. Stems are openly branched, except in some very small plants. Produces rosette leaves that lie close to the ground. Lower leaves are 2 to 6 inches (5-15 cm) long, and progressively smaller up the stem. Upper leaves are 0.4 to 1.2 inches (1-3 cm) long, narrow, and densely covered with cobwebby hairs later in the season. Inflorescences are borne in solitary flowerheads on stem tips, although vigorous plants may produce flowerheads in branch axils. The involucre is about 0.5 to 0.7 inches (1.2-1.8 cm) long. Phyllaries have 1 long central spine 0.4 to 1 inch (1.0-2.5 cm) long and 2 or more pairs of short lateral spines and are densely to sparsely covered with hairs. Fruits are achenes of 2 types, both glabrous and about 2 to 3 mm long. Most of the achenes (seeds) (75-90%) have a short (2-5 mm), stiff pappus (plumed). Seeds at the periphery of the flowerhead are darker in color and have no pappus (plumeless)



Cirsium arvense

Common Name: Canada thistle, Creeping thistle

Life Cycle: Perennial

Family: Asteraceae

Flowering Period: Summer to fall

Description: Root system is wide spreading, with a slender taproot surrounded by creeping lateral roots. Plant has slender aerial shoots with leafy stems reaching 1 to 6.5 feet (0.3-2 m) tall. Leaves are 1.2 to 7 inches (3-18 cm) long and 0.2 to 2.4 inches (0.5-6 cm) wide. Canada thistle leaf morphology (texture, hairiness, lobing and spininess) can vary considerably, even within a geographical region. Canada thistle has numerous aboveground branches that bear several, small flowerheads (0.4 to 0.75 inch (1-2 cm) in diameter) in clusters. Seeds are 0.09 to 0.2 inch (2.4-5 mm) long, and 0.04 inch (1 mm) in diameter with a pappus of feathery bristles.



Cirsium vulgare

Common Name: Bull thistle, Spear thistle Family: Asteraceae

Life Cycle: Biennial, sometimes annual or perennial

Flowering Period: Summer, all year round in warmer climates

Description: In the juvenile phase, individual plants form a single rosette with a taproot up to 28 inches (70 cm) long. Rosettes may develop up to 3.3 feet (1 m) in diameter. The taproot does not spread, but develops several smaller lateral roots. Stems have spiny wings and grow 1 to 6.6 feet (0.3 to 2 m) tall, with many spreading branches, and sometimes a single stem. Bull thistle stem leaves are more or less lance-shaped and 3 to 12 inches (7.6-30 cm) long, prickly hairy on the top and very hairy underneath. Lobes on leaves are tipped with stout spines. Flowerheads are 1.5 to 2 inches (3.8 to 5 cm) in diameter, 1 to 2 inches (2.5-5 cm) long, usually solitary, and more or less clustered at the ends of shoots and branches. Flowers are subtended by narrow, spine-tipped bracts. Fruits are achenes, 1/16th-inch (0.15 cm) long, with a long, hairy plume that is easily detached.



Onopordum acanthium

Common Name: Scotch thistle

Family: Asteraceae

Life Cycle: Biennial

Flowering Period: Summer to fall

Description: Herbaceous biennial plant that can grow up to about 6.5 ft. (2 m) in height. The plant is coarse, many-spined and is highly branched. The stems are winged. The whole plant is densely tomentose, giving it a bluish-white appearance. The leaves are oblong and prickly, being toothed or slightly lobed along the margins. The apex of the leaf is acute. The leaves are mostly sessile, with some of the lower leaves having petioles. The blades of the lower leaves can measure up to 1 ft. (30 cm) long. The flower heads are purple and measure 1-2 in. (2.5-5 cm) in diameter. All of the bracts of the involucre are tipped with flat, pale, orange-colored spines. The seeds of this plant are 0.2 in. (4-5 mm) long. They are gray in color, and attached to a brown-colored pappus that can be two times as long as the seed.



Carduus nutans

Common Name: Musk thistle, Nodding plumeless thistle

Life Cycle: Biennial to perennial Family: Asteraceae

Flowering Period: Spring to summer

Description: Rosette leaves can grow up to 10 inches (25 cm) long and 4 inches (10 cm) wide, and rosettes can be 2 feet (0.6 m) or more in diameter. Musk thistle rosettes have numerous small roots in the fall, and develop a large, fleshy taproot in the spring that is hollow near the soil surface. Musk thistle may have 1 to 7 branched stems that grow 2 to 6 feet (0.6-1.8 m) tall. Stem leaves are 3 to 6 inches (7.6-15.2 cm) long and spiny. Stems have spiny wings their full lengths except for a few inches below flowerheads. Flowerheads are large, 1.5 to 3 inches (3.8-7.6 cm) in diameter, solitary, and terminal on shoots. Flowers are subtended by numerous large, lance-shaped, spine-tipped bracts that resemble a pinecone. The fruit is an achene bearing 0.3-0.5 cm seeds with a hair-like pappus.



Grindelia squarrosa

Common Name: Curlycup gumweed

Life Cycle: Biennial to perennial

Family: Asteraceae

Flowering Period: Summer to fall

Description: Warm season perennial or biennial native forb. Curlycup gumweed is taprooted, and develops a short, vertical rhizome. The root system extends 6.5 feet (2 m) into the soil, with extensive shallow root development. It grows 0.33 to 3.3 feet (0.1-1 m), with one to several branched stems. Flower heads are several to numerous. The floral disk is 0.6 to 2.75 inches (1.5-7 cm) wide. The fruit is an achene.



Taraxacum officinale

Common Name: Common Dandelion

Family: Asteraceae

Life Cycle: Perennial

Flowering Period: Summer to fall

Description: Plant has a thick taproot up to 6 inches (15.2 cm) long. Stems are very short and wholly underground, producing a rosette of leaves at the ground surface. Leaves are 2 to 16 inches (5-40 cm) long. The flower heads are solitary at the end of naked, hollow stalks. Stalks can reach heights up to 2 feet (60 cm). One head contains from 100 to 300 flowers. Seeds of common dandelion are topped by a parachute of bristles that aid in dissemination.



Erodium cicutarium

Common Name: Filaree, redstem storksbill
Geraniaceae

Family:

Life Cycle: Annual to biennial

Flowering Period: Summer to fall

Description: Winter annual to biennial. Many branched stems either erect, spreading, or prostrate with the tips ascending often covering areas 2 to 3 ft. or more in diameter. Leaves form a rosette close to the ground, alternate, hairy and 1/2 to 4 in. (1-10 cm) long. Leaves further divided into 3 to 7 stalkless leaflets which are further divided into fine segments. Flowers in a cluster at the end of long slender stalks arising from the leaf axils. The 5 rose purple petals are 1/4 inch (6mm) or less long, and drop off very quickly. Fruit a long, needlelike beak which forms a corkscrew when dry. *E. texanum* can be distinguished by having palmately lobed leaves as wide as long, and slightly larger flowers (petals >6mm).



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Salsola kali

Common Name: Russian thistle, tumbleweed

Life Cycle: Annual

Family: Chenopodiaceae

Flowering Period: Spring to summer

Description: Exotic, annual, erect forb. The root system consists of a taproot, reaching 0.3 foot (1 m) or more in depth, and extensive lateral roots. Plant is highly branched and rounded in form, growing from 1 to 3 feet (0.3-1 m) in height and from 1 to 5 feet (0.3-1.5 m) in diameter. The awl-shaped, spiny-tipped leaves bear small, inconspicuous flowers in the leaf axils. The small, winged seed, retained in the leaf axils until after plant death, contains no endosperm tissue, but is instead comprised of a spirally-coiled, complete embryo already containing some chlorophyll.



Halogeton glomeratus

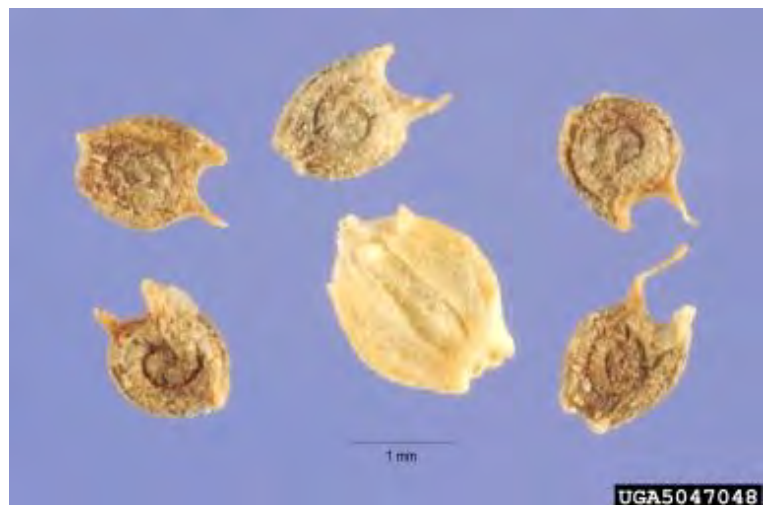
Common Name: Saltlover

Family: Chenopodiaceae

Life Cycle: Annual

Flowering Period: Summer

Description: Exotic succulent annual forb. It has a generalized type of root system; the taproot can penetrate as deep as 20 inches (51 cm), with a radial spread of 18 inches (46 cm). Many main stems branch from the base of the plant and are low spreading before becoming erect. Plant can be a few inches high in dense stands to 2 feet [61 cm] high in widely spaced stands. Leaves are small, fleshy, and spine tipped. Two flower types are present; larger flowers that are 0.08-0.12 in. (2-3 mm) wide with 5 light yellow or greenish-yellow sepals, and smaller flowers with tooth-like sepals. Neither of these flower types have petals, but they both have 2-5 stamens and 2 stigmas. Seed produced in the early summer are light tan and wingless; seeds produced in the late summer are dark brown and winged.



Bassia scoparia

Common Name: Kochia

Family: Chenopodiaceae

Life Cycle: Annual

Flowering Period: Summer to early fall

Description: Introduced, erect, annual forb with a taproot that forms pyramidal or rounded bushes up to 7 feet (2.1 m) tall. Roots can reach a depth of at least 8 feet (2.4 m) and have a horizontal radius of at least 8 feet (2.4 m) which would allow the plant to draw water from a cylindrical soil mass 16 feet (4.9 m) in diameter and 8 feet (2.4 m) or more deep. The leaves have alternate arrangement and are simple, linear to narrowly ovate to 5.5 cm long and can have hairs, depending on age. Leaves are very short petioled or sessile. The leaves have 1-5 prominent veins with entire margins fringed with hairs. Stem is green, red tinged, or red depending on age. The flowers are green leaf-like bracts and surrounded by tufts of hair. The inflorescence is a spike, flowers are either perfect with 3-5 stamens or pistillate with both types having two stigmas. Utricle fruits with an oval, brown to black seed



Solanum eleagnifolium

Common Name: Silverleaf nightshade, white horsenettle

Life Cycle: Perennial

Family: Solanaceae

Flowering Period: Spring to summer

Description: Native. Multistemmed, up to 1 m tall, the aerial growth normally dying back during winter, with an extensive root system spreading to over 2 m deep. Stems are cylindrical, sparingly branched, with a few scattered reddish prickles, herbaceous except at the base. Leaves are dark green to pale greyish green, petiolate, lanceolate, obtuse or acute at the tip, rounded or truncate at the base, with entire or wavy margin, 2.5–10 (max 16) cm long and 1–2.5 (max 4) cm wide. Leaves, stems and calyx are densely pubescent, giving the plant its typical silver-green appearance. Foliage is covered with star-shaped hairs. The inflorescence is a solitary cyme of 1–7 flowers, with long peduncules (5–20 mm). The calyx measures 5–7 mm, with 2–4 linear lobes. The corolla is 25–35 mm large and is orbicular, generally bright blue to purple but sometimes white with yellow anthers of 7–9 mm. The fruit is an irregularly dehiscent berry, initially spherical, green and fleshy, drying and becoming yellow to orange (10–15 mm in diameter) at maturity.



Elaeagnus angustifolia

Common Name: Russian Olive

Family: Elaeagnaceae

Life Cycle: Perennial tree

Flowering Period: Spring to early summer

Description: Shrub or small tree that can grow up to 35 ft. (10 m) tall, typically spiny branches. The leaves are simple, alternate and lanceolate to narrowly elliptic. They are 1-4 in. (3-10 cm) long, silver appearance with densely stellate hairs on underside, less so above. The fragrant flowers are 0.5-0.6 in. (1.2-1.5 cm) wide, silvery outside and yellow within. There are 1-3 flowers within the leaf axils. Fruit are 0.4 in. (1 cm) long, orange-yellow and almost completely covered by densely silver scales. Typically found in riparian areas or moist sites.



Tamarix spp.

Common Name: Tamarisk, saltcedar

Life Cycle: Perennial shrub/small tree Family: Tamaricaceae

Flowering Period: Spring to summer

Description: Deciduous shrub or small tree that can grow up to 15-20 ft. (4.6-6.1 m) in height. The bark is smooth and reddish on younger plants, turning brown and furrowed with age. Leaves are small, scale-like, gray-green in color, and overlap along the stem. The 5-petaled flowers are pale pink to white, in dense plumes that bloom from early spring to late fall. Fruit capsules contain numerous tiny (0.04 in. [0.1 cm] diameter) seeds. Found along riparian areas and disturbed seasonally wet areas.



Tribulus terrestris

Common Name: Puncturevine, goat heads, caltrop

Life Cycle: Annual

Family: Zygophyllaceae

Flowering Period: Spring to summer

Description: Prostrate growth habit, leaves are opposite, hairy, 1-3 in. (2.5-7.6 cm) long, and divided into 8-18 oblong leaflets. Flowers yellow, 5 petaled, 5-10mm in diameter. Fruits are circular, spiny burs that split into 5 crested sections.



Convolvulus arvensis

Common Name: Field bindweed

Life Cycle: Perennial

Family: Convolvulaceae

Flowering Period: Spring to fall

Description: Perennial with prostrate twining stem, rhizomatous. Leaves are round to arrow-shaped, 1-2.25 in. (2.5-5.7 cm) long, and alternate. Flowers funnel shaped, white to pink in color approximately 0.75-1 in. (1.9-2.5 cm) across and are subtended by small bracts. Fruit are light brown, rounded to ovoid, and 0.13 in. (0.3 cm) wide. Each fruit contains two seeds.



Linaria dalmatica

Common Name: Dalmation toadflax

Life Cycle: Perennial Family: Plantaginaceae

Flowering Period: Spring to summer

Description: Herbaceous perennial grows up to 4 ft tall (100cm). Taproots may reach depths of 4 to 10 ft, and lateral roots can extend 12 ft from the parent plant. Both leaves and stems are waxy. Leaves are heart-shaped, 1 to 3 in long (2-5cm) and with clasping bases. Flowers are bright yellow with orange markings and elongate spurs and occur in simple racemes on the stems. Fruit a capsule, 1 in (6-7mm) long dehiscent by irregular splitting at the apex of each carpel.



Medicago polymorpha

Common Name: California burclover, burclover, toothed medic

Life Cycle: Annual

Family: Fabaceae

Flowering Period: Spring

Description: Herbaceous annual herb, prostrate and spreading growth habit. Trifoliate leaves, leaflets slightly toothed and obovate. Inflorescence a raceme, flowers pea-like, small and yellow in color with 9 fused filaments and 1 free. Fruit a spiny legume coiled in 2-6 turns.



***Alhagi camelosum* (Syn. *Alhagi maurorum*)**

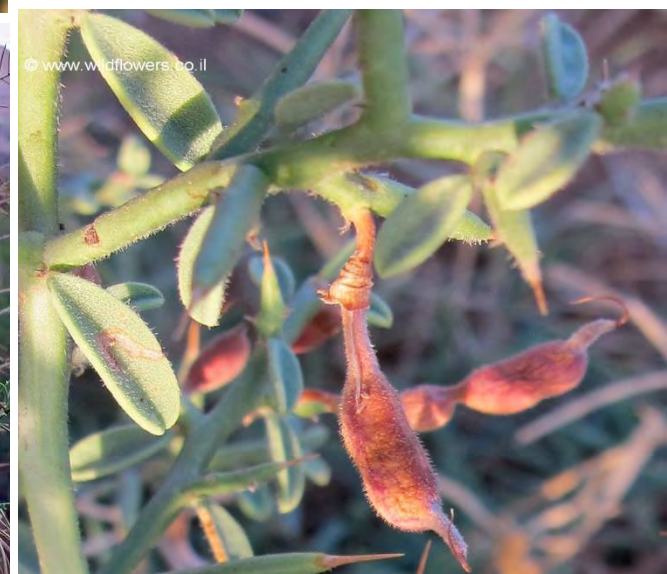
Common Name: Camelthorn

Life Cycle: Perennial

Family: Fabaceae

Flowering Period: Summer

Description: Perennial sub-shrub that grows 2-3 ft. (0.6-0.9 m) tall, deep-set rhizome and root system. Sharp yellow spines that are actually modified stems are from 1-2 in. (2.5-5 cm) in length. The leaves are alternate, ovate to lanceolate from 0.25-1.25 in. (0.6-3.2 cm) long with smooth margins, pale beneath with minute red dots on top. Flowers pea-like, reddish purple in color, located along axis resembling thorn. Fruit a glabrous pod with 3-8 seeds. Found in sandy areas adjacent to riparian, playas and saline meadows.



Erysimum repandum

Common Name: Spreading wallflower

Life Cycle: Annual

Family: Brassicaceae

Flowering Period: Spring to early summer

Description: Annual herb 1-2ft (.35m) tall, typically branching throughout. Basal leaves form a rosette, leaf narrowly oblanceolate to linear, margins dentate with widely spread teeth. Inflorescence at the end of upper stems in a raceme, relatively few flowered. Flowers yellow or yellow white, 4 petals 6-8mm long with sepals slightly smaller. The fruit a silique, horizontally spreading from the inflorescence, 2-4in (4-8cm) long. *E. repandum* can be distinguished from other species of *Erysimum* by the less showy flowers of *E. repandum* and spreading siliques vs more upright.



Chorispora tenella

Common Name: Blue mustard, purple mustard, musk mustard

Life Cycle: Annual

Family: Brassicaceae

Flowering Period: Spring

Description: Herbaceous annual from a taproot. Stems are branched near the base, covered in glandular hairs. The leaves are green, alternate, and lanceolate, oblanceolate, or elliptic-oblong in shape. The flowers are small and have 4 narrowly spoon-shaped petals that are crimped and darker at the base. Fruit a silique, woody with a stout beak at the tip. **Plant gives off musky odor which distinguishes it from similar species, along with the glandular hairs on stems and leaves.**



Brassica tournefortii

Common Name: African mustard

Life Cycle: Annual

Family: Brassicaceae

Flowering Period: Spring

Description: Annual herb that can grow to 3 ft. (0.9 m) tall, branches from the base to the apex. The leaves are mainly in a basal rosette and are green, pinnately lobed, and have toothed margins which are prickly hairy. The flowers have 4 light yellow petals, are 0.25 in. (0.6 cm) across, and are clustered in groups of 6 to 20 flowers. Fruit a silique, 2.5 in. (6.35 cm) long, linear, with rounded edges and an obvious beak at the tip. Seeds are round, dark brown to brown-purple, and are sticky when wet. Grows on sandy sites.



Sisymbrium altissimum

Common Name: Tall tumbled mustard

Life Cycle: Annual, biennial

Family: Brassicaceae

Flowering Period: Spring to summer

Description: Annual, sometimes biennial growing from a taproot. Up to 5ft (1.5m) in height, stem becoming glabrous. Cauline leaves are alternate, 0.5-5 in. (1.3-12.7 cm) long and decrease in size up the stem. Flowers small, 4-petaled, yellow to white, develop in groups at the apex of the stems. Fruits a silique, 2-4 in. (5-10 cm) long.



Sorghum halepense

Common Name: Johnsongrass

Life Cycle: Perennial

Family: Poaceae

Flowering Period: Summer

Description: Perennial rhizomatous grass, culms up to 8ft (2.4 m) tall. The 2 ft. (0.6 m) long, lanceolate leaves are arranged alternately along a stout, hairless, somewhat upward branching stem and have distinct, white midribs. Ligule covered in ciliate hairs. Florettes occur in a loose, spreading, purplish panicle. Fruits are also produced in a panicle. Seeds form in the sessile spikelets. Occurs in moist waste areas, ditches and pastures.



Schismus barbatus

Common Name: Mediterranean grass

Life Cycle: Winter annual

Family: Poaceae

Flowering Period: Late winter to spring

Description: Tufted, cool-season annual up to 40 cm tall. Stem smooth with scattered soft hairs. Blades are narrowly linear, 5-10 cm long, 0.5-2 mm wide, and curled inward. Smooth except near the orifice where there is a ring of rigid hairs to 0.1 inch (3 mm). Inflorescence narrow, erect, greenish-purple panicle. Panicle dense, 1-5 cm long and ovate to elliptic in shape. Common in sandy disturbed sites. Can be confused with *Vulpia octoflora*, which has long awns on florette.



***Cenchrus insertus* (Syn. *C. spinifex*)**

Common Name: Coastal sandbur, common sandbur

Life Cycle: Annual, short lived perennial Family: Poaceae

Flowering Period: Summer

Description: Native, warm season annual and at times, short-lived perennial. Height from 8 in to 2 ft, culms erect or growing along ground. The leaf blade is 2 to 6 in long and flat, sheath is flattened and hairy along margins. The inflorescence is a raceme with 6 to 20 spiny burs covered with fine hair, each enclosing 2 spikelets, and often topped by leaves.



Bromus tectorum

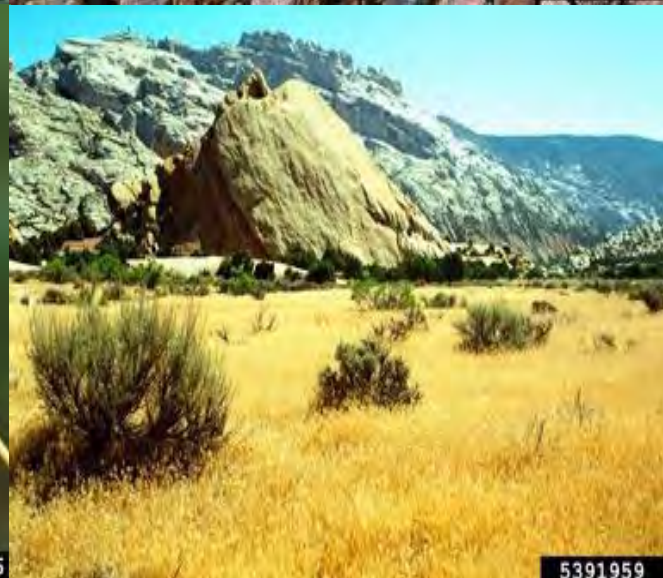
Common Name: Cheatgrass, downy brome

Life Cycle: Annual

Family: Poaceae

Flowering Period: Spring to summer

Description: Winter annual, 5-60 cm tall, tufted and turning reddish purple when mature. In seedling stage, blades and sheaths densely soft-hairy. Blades 5- 12 cm long, 1-7 mm wide; flat, hairy or not, sheaths closed and hairy. Ligule short and membranous. Inflorescence dense, slender, drooping, onesided, and 5-15 cm long. Awns are purple at maturity and measure 12 to 14 mm long. Spikelets numerous, hairy, narrow on slender curved threadlike branches. Each has 3 to 7 florets. *B. tectorum* is distinguishable from other annual and perennial species of *Bromus* by its slender stems, hairy leaves, and the long-awned spikelets on twisted branches.



Bromus rubens

Common Name: Red brome, foxtail brome

Life Cycle: Annual

Family: Poaceae

Flowering Period: Spring to summer

Description: Tufted cool season annual bunch grass reaching 20-50 cm with shallow fibrous root system. Covered with sparse hairs, directed down or back. Stems erect and unbranched. Mid-culm internodes hollow, rounded, nodes hairless. Leaf blades flat, about 4-12 cm long, 2-3 mm wide, pointed; both sides of blade densely hairy; margins smooth, ciliolate (minute hairs); midrib prominent. Leaf sheath closed, hairy. Inflorescence densely contracted raceme to panicle, terminal on unbranched stem; 3-9 cm long, approx. half as wide; mature seedheads turn red-brown to purplish in color; dry plant turns straw colored. The dense panicle with a purplish tinge and pubescent culm distinguish *B. rubens* from other annual *Bromus*.



Bromus diandrus

Common Name: Ripgut brome

Life Cycle: Annual

Family: Poaceae

Flowering Period: Spring to summer

Description: Winter annual, culms ascending to decumbent at base, 20-70 cm tall; thick but weak. Stems solitary to densely tufted. Sheath round, closed with spreading hairs. Blades flat, 10-20 cm long, 3-8 mm wide, usually with long, soft hairs. Inflorescence a narrow, open panicle, 7-15 cm long with stout, erect branches sometimes with lower branches spreading, nodding; lower branches 1-2 cm long; few flowered. Spikelets large, 3-4 cm long excluding awns, mostly with 5-7 florets; breaking above glumes and between florets. Awns 3-6 cm long.



Bromus inermis

Common Name: Smooth brome, rocket brome

Life Cycle: Perennial

Family: Poaceae

Flowering Period: Summer

Description: Long lived perennial bunchgrass, 1-3 ft tall, spreading from rhizomes.

Leaves basal and cauline (stem), blades are flat, 10-15 cm long, 3-8 mm broad. Inflorescence a narrow panicle, the erect branches ascending or spreading in flower, 10–20 cm long, rather dense. 6-11 spikelets narrowly oblong, pale green to slightly purple-tinged, 6–8- flowered. With short awns <2mm or no awn at all. Typically grows at 7000-10000 ft. elevations in Arizona.



Bromus racemosus

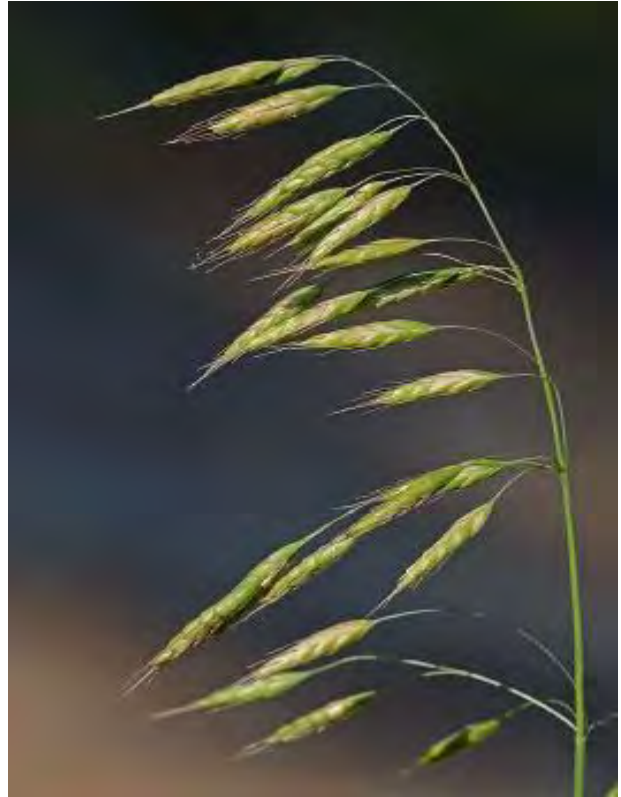
Common Name: Bald brome

Life Cycle: Annual

Family: Poaceae

Flowering Period: Summer

Description: Annual grass, shallow root system. Culms solitary or caespitose, stems 10 to 150 cm long. Leaf-sheaths pubescent. Ligule a membrane; 1–3 mm long; Leaf-blades 5–20 cm long; 2–5(–8) mm wide. Leaf-blade surface covered in coarse, stiff hairs. Inflorescence an open panicle, primary panicle branches 2–6 cm long; bearing 1–4 fertile spikelets on each lower branch. Panicle branches stiff; straight; scabrous; glabrous (smooth). Spikelets comprising 4–8 fertile florets; with diminished florets at the apex.



Bromus japonicus

Common Name: Japanese brome

Life Cycle: Annual

Family: Poaceae

Flowering Period: Spring

Description: Cool season annual grass, 14 to 40 in. (35-100 cm.) tall. Leaf blades are flat, covered with soft, distinct, thin hair, approximately 1 to 8 in. (2.5-20 cm) in length, and 1/32 to 1/16 of an inch wide. Sheaths are covered with dense, soft hairs. Ligules are 1/64 to 1/16 of an inch long and auricles are absent. Inflorescence is an open panicle, 2 to 7 inches long with spreading, usually drooping branches. Spikelets are 6 to 10 flowered, 1/2 to 1 inch in length, and 1/8 to 1/4 of an inch wide. Awns are 1/4 inch to 3/4 inch long, somewhat twisted and widely spread at maturity.



Bromus catharticus

Common Name: Rescuegrass

Life Cycle: Annual to perennial

Family: Poaceae

Flowering Period: Spring to summer

Description: Relatively short-lived tufted grass that can grow up to 1 m tall. Leaf blades 2-10 mm wide. Inflorescence a panicle, approximately 1.5-4 cm long and 4-10 mm wide. Panicles are made up of many flattened flower spikelets that are yellow in color. These flower spikelets are made up of 6-12 relatively large florets that are 12-20 mm long. The florets have short awns at the tip and break apart at maturity. The stems are robust, glabrous, and unbranched.



Bromus arvensis

Common Name: Field brome

Life Cycle: Annual

Family: Poaceae

Flowering Period: Spring

Description: Winter annual, culms erect ascending; 25-90 cm long; 2-8 -noded. Leaf-sheaths pubescent. Leaf-blades 5-20 cm long; 2-6(-10) mm wide. Leaf-blade surface slightly rough to the touch. Inflorescence a panicle 8-25 cm long; 6-20 cm wide. 1-8 fertile spikelets on each lower branch, spikelets solitary.



Aegilops cylindrica

Common Name: Jointed goatgrass

Life Cycle: Annual

Family: Poaceae

Flowering Period: Spring

Description: Introduced annual weed with open sheaths, flat blades, and a spike-like inflorescence that disarticulates near the base after it matures. Culms 15-50 cm long, erect or decumbent at the lower nodes, often with many tillers, lower sheaths sparsely hairy, upper sheaths glabrous, sheaths with translucent margins, blades flat, often sparsely hairy, 3-14 cm long, 2-5 mm wide. Spikes 2-12 cm long, 3 mm wide, narrowly cylindrical, disarticulating at the bases, with 3-8 spikelets partly sunken in axis, spikelets 9-12 mm, cylindrical, scabrous or pubescent, glumes of lower spikelets acute with 2-5 mm long awns, glumes of apical spikelets 7-9 mm long, with 3-6 cm long awns, lemmas of apical spikelets with one 4-8 cm long awn, both glumes and lemmas of apical spikelets flanked by 2 teeth.



