

# Winter Plant Identification Training

For NRCS Field Office Staff

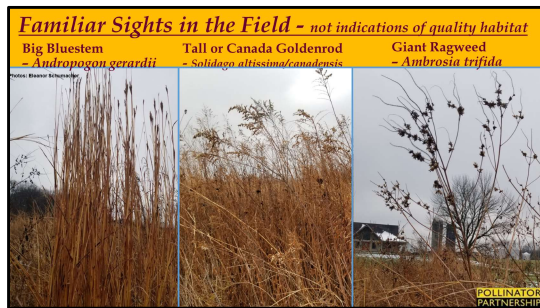
**POLLINATOR  
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[www.pollinator.org](http://www.pollinator.org)



Hi – Thank you for joining.



1. These are examples of non-target plants often mistaken for indicators of quality pollinator habitat.
2. Left: Big Bluestem – non-target because in pollinator habitat, we want shorter-statured native grasses like Little Bluestem, Prairie Dropseed, or Sideoats Grama
3. Middle: Tall or Canada Goldenrod – though it is native and great for pollinators, it is extremely aggressive and can suppress other target species.
4. Right: Giant Ragweed – considered a noxious weed, can often be confused for a target plant, like tall coreopsis

# Getting familiar with botanical terminology



### Illustrated Plant Structures

#### Leaf Shapes

#### Leaf Margins

#### Leaf Bases

#### Leaf Tips

#### Leaf Attachments

#### Leaf Arrangements

#### Compound Leaves

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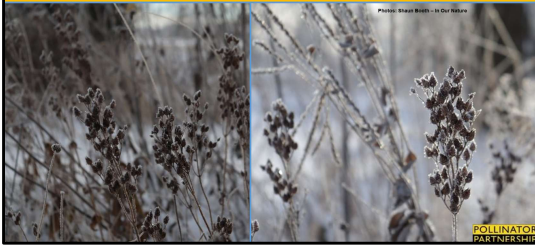
various standard botanical descriptive terms.



1. ***Penstemon digitalis*, Foxglove Beardtongue** can be found in mesic black prairie soils, openings in upland and floodplain forests, woodland borders, thickets, savannas, acid gravel seeps, pastures, and abandoned fields.
  2. Height: up to 3 feet tall.
  3. Leaves: medium green, sometimes with reddish tints. They are variable in shape, but tend to be ovate or broadly lanceolate, and are up to 6" long and 2½" wide. Opposite leaves on these stalks are more lanceolate in shape than the basal leaves. Their edges often have tiny teeth, and the leaf surface is often shiny.
  4. Flowers: occur in an open panicle at the top of each flowering stem. They bloom during late spring or early summer for about a month.
  5. Seeds: ripen in upright capsules that turn from green to brown when ready to disperse in late summer and into the fall.
- END.



*Penstemon digitalis*  
foxglove beardtongue



1. ***Penstemon digitalis*, Foxglove Beardtongue**
2. Clusters of upright seed capsules persist into winter.
3. Base of plant retains robust basal rosette of long, obovate leaves into winter months, which turn red. This ground-level tuft of leaves can be mistaken for English Plantain (a common weed).

*Baptisia alba, bracteata, australis*  
wild white, cream and false indigo



1. **Baptisia alba, bracteata, or australis – Wild White, Cream, and False Indigo**
2. Habitat: Found in moist, mesic and dry prairies
3. Height: 3 – 6 ft tall
4. Stems: Side-stems extend from light-green to reddish purple central stems
5. Leaves: Compound and trifoliate. Leaflets are oblanceolate or ovate, with smooth margins coming to points at leaf end. Hairless, blue-green to grayish green, 2” long, ¾” across
6. Flowers: Large (1-inch) pea-like flowers protrude from 2-foot tall racemes.
7. Blooming period lasts between 4 to 6 weeks in late spring to early summer.
8. Seeds: Oblong seed pods are thin, 2” long, turning from green

to black.  
END

*Baptisia alba, bracteata, australis*  
wild white, cream or false indigo



1. **Baptisia alba, bracteata, or australis – Wild White, Cream, and False Indigo**
2. Plant materials persist into winter months. Look for tough, dried leaflets and black pods on racemes laying down as season progresses.
3. Seeds are an important food source for quail and pheasants, and plant materials will disintegrate as animals destroy them to consume seeds.

END



Here are some of the more common milkweed plants in Illinois.



You'll find **Asclepias syriaca** or **Common Milkweed**, as the name implies, growing in many different environments. It likes disturbance, which is why it is associated with fields and roadsides.

1. Stem: Individual plants have a single stem, most often found growing in clusters as it reproduces by root.
2. Height: Plants can grow to 6.5 ft. tall.
3. Leaves: The leaf arrangement is opposite.
4. Leaves are broadly ovate to elliptical on short petioles and are 3-7" long.
5. Flowers: Round, umbel clusters. 20-30 small pink/white flowers per cluster. They bloom June to August.
6. Fruit & Seeds: Plump tear-shaped pods with verticle rows of hair-like warts. Gold/gray to brown when ripe.

END



*Asclepias incarnata*  
swamp milkweed



1. **Asclepias incarnata - Swamp milkweed** prefers moist soils and can be found near bodies of water, as well as wet meadows, and prairies,
2. Height: The plant can grow up to 6 ft. tall, with a single reddish stem growing from the base, then branching in multiple stems towards the top of the plant.
3. Leaves: Opposite, up to 6" long, narrow, and lance-shaped – distinguishing it from other milkweeds.
4. Flowers: Range from bright pink to magenta, red, and cream. They form open clusters at the top of the stems.
5. They bloom July through September.
6. Fruit & seeds: Form smooth and narrow tear-shaped seed pods about 4" long and will turn brown when ripe.

END



1. ***Asclepias tuberosa*: butterfly milkweed** occurs in drier and rocky prairies, fields and roadsides.
2. Height: It typically grows in clumps to height approx. 1-3' tall
3. Stem: Stout and densely hairy with leaves that are narrow and lance-shaped, 2" to 6" inches long and may be arranged alternate or opposite.
4. Flowers: Hard to miss – with fantastic bright shades of orange that you don't see in many species. Butterfly milkweed is a favorite of bumble bees and is most often 'a buzz. Flowers form flat-topped clusters, 2" to 3" across.
5. Flowering occurs earlier than the other milkweeds and will begin in June and last through August. It is also the only milkweed that does not produce milky sap.
6. Seeds heads: seed pods are spindle-shaped and are 3-6"



long.  
END



1. **Asclepias verticillata - Whorled Milkweed** can be found in prairies, and in forest openings
2. Height: It grows from slender single-stems, from 1-3 ft. tall
3. Leaves: Easily distinguished by its leaves which are very narrow, approx. 1/8" wide, and linear in shape. The leaves are arranged in whorls around the stem
4. Flowers: Small, greenish-white flowers occur in rounded clusters 1" to 3" across, appearing on the upper part of the stem
5. Seed pods: Thin, 3" to 4" long, and can be collected in mid to late September/early October

END

## *Asclepias* Winter ID

*pictured: common milkweed*



Photos: Amber Barnes

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1. **Winter Identification** - Milkweed becomes harder to identify as winter progresses.
2. More delicate species, such as Butterfly Milkweed and Whorled Milkweed lose pods and leaves in fall, leaving only the stalk.
3. Swamp, and especially Common Milkweed drop their leaves in the fall, but may retain some seedpod casings into winter.
4. Casings will be open, gray to black outsides, mottled and whitish insides.
5. As casings drop, bulbous, flat-headed receptacles hold their place at the end of branched peduncles.

## Don't be fooled by other milky sap producing plants...



1. Spreading Dogbane can be confused with milkweed.
2. Seed pods are very thin in comparison, they look like vanilla beans, that **hang downward**, vs. milkweeds that form upwards.



1. ***Rudbeckia hirta*, black-eyed Susan** is a common native wildflower which typically occurs in prairies, fields, open woodlands, and roadsides.
2. Height: A coarse, hairy plant (species name of *hirta* means hairy in reference to the short bristles that cover the leaves and stems) growing 1-2.5' tall.
3. Stem: Each stem produces a single flower that is up to 3" across with 8 to 20 bright yellow to orange-yellow rays.
4. Leaves: Alternate and feel rough due to stiff hairs.
5. Black-eyed Susan blooms throughout the summer months
6. Seed head: Rounded seed cone with small black seed pellets.

END

*Rudbeckia hirta*  
black-eyed susan



1. ***Rudbeckia hirta*, black-eyed Susan**
2. Seed cone becomes hard and turns grayish or dark brown when seeds are ripe. This usually occurs three to four weeks after the blooms fade.
3. Hairy leaves may persist on stem in winter. Seed cones will blow down in wind, but last throughout winter.



*Veronicastrum virginicum*  
culver's root



1. *Veronicastrum virginicum* or Culver's root occurs in moist meadows and prairies, blooming mid-summer, typically in July.
2. Height: It typically reaches 3-7' tall when in bloom
3. Leaves: Its lance-shaped leaves are arranged in whorls around the stem (3-7 leaves per whorl)
4. Flowers: Dense, slender, 9" long spikes (racemes) of tiny, tube-like, white to pale blue flowers open from the top down in late spring to early summer

*Veronicastrum virginicum*  
culver's root



*Veronicastrum virginicum* , **Culver's root**

1. Culver's root stems will hold some of their whorled leaves into winter.
2. Dark brown stem and seed spikes stand in field for several months.
3. Easy to confuse with Blue Vervain, however the center seed spike is most always taller than the other seed spikes.



*Ratibida pinnata*

yellow coneflower or gray-headed coneflower



***Ratibida pinnata*, yellow or grayheaded coneflower**

1. Habitat: Yellow prairie coneflower typically occurs in dry prairies
2. Height: It Grows 3-5' tall.
3. Leaves: Toward the lower part of the plant, leaves are pinnately divided into 3 to 7 lobes, which sometime subdivide into secondary lobes and can grow to up 8" long. The leaves toward the top of the plant are smaller and lanceolate.
4. Flowers: Thirteen gracefully drooping (or “reflexed”) bright yellow ray flowers are about 3" long. The ray flowers surround a dull-gray to brown central disk, that looks like an elongated cylinder.
5. If you crush the disk, it smells like anise.

END

*Ratibida pinnata*

yellow coneflower or gray-headed coneflower



***Ratibida pinnata*, yellow or grayheaded coneflower**

1. Dried, gray, deeply lobed leaves curl up and fall from the stem, and as seeds fall away, or are consumed by birds, it becomes harder to identify.
2. Stems and seed head can last into mid winter. When all seeds have fallen, only a little gray “arrowhead” remains at the top of the stem.

*Verbena hastata*  
blue vervain



***Verbena hastata* – blue vervain**

1. Habitat: Found in wetter areas with full to partial sun
2. Height: 3-5'
3. Stem: The stems are green to reddish, with four angles, and are coated with white hairs that lay flat against the stem.
4. Leaves: 6" long and 1" wide, lanceolate with noticeable veins, serrated edges, and short petioles.
5. Flower: The upper stems terminate into branching clusters of flowering spikes up to one foot long and ½ inch across. Individual floral spikes are up to 5 inches long, and densely packed with multiple blue-violet flowers. Individual flowers are up to ¼ inch in circumference with 5 identical petals. They bloom mid to late summer and have no discernable scent.
6. Seed Head: Clusters of tall, slender spikes, stand rigidly upwards, holding tiny red 2mm seeds, which fall from openings at the top of individual seed pouches when the plant blows in the wind.

7. Winter ID – Brown to black skeleton remains rigid and tall long into winter, easy to pick out in a stand of other plants disintegrating in winter weather.

END

*Desmanthus illinoensis*  
Illinois bundleflower



1. Habitat: Found in meadows, prairies, or disturbed areas with well drained soil and full sun.
2. Height: 2-4 feet
3. Stem: The central stem is light green, grooved, and mostly smooth or contains sparse hairs.
4. Leaves: Bipinnate – small leaflets are arranged on either side of the stem and grow opposite each other in a fern-like appearance. Each leaf has 8-12 pairs of pinnate leaflets and each leaflet consists of 20-40 pairs of sub leaflets. They are light to medium green, oblong in shape, and are covered in fine white hairs.
5. Flower: Small white flowerheads occur individually and are about 3” long. The flowers are egg to sphere shaped and densely packed with 25-50 florets each containing 5 white petals. The flower heads tend to look lumpy because the florets bloom from bottom to top.
6. Seed head: 5-15 seedpods that become dark brown when ripe. Pod is somewhat typical of legumes in that seeds are sheathed in flat, thick, papery beans pods, but atypical in that pods curl into disks, clustered together in ribbed balls. The seeds are reddish brown, flat, shiny, and oval in shape.

END



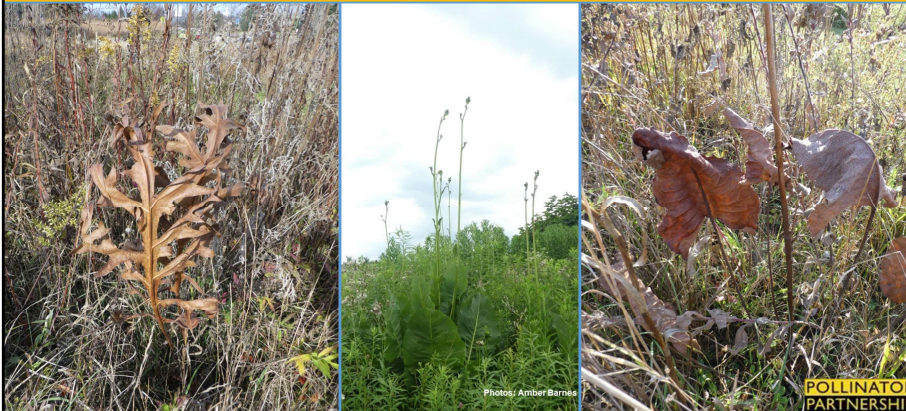
*Eryngium yuccifolium*  
rattlesnake master



1. Habitat: Grows well in prairies with well drained soil and full sun.
2. Height: 3-6 feet
3. Stem: Stems are hairless, blue-green, waxy, and ridged. The stout central stem is unbranched except near the inflorescence.
4. Leaves: Long and sword-like, with parallel veins, tapering to a sharp point. They are up to 2.5 feet long and about 1 inch wide. Stem leaves are stiff, clasp the stem and typically wrap all the way around the stem. The surface of the leaf is waxy with smooth edges or widely spaced, fine, spiny teeth.
5. Flower, bloom time: Whitish-green , prickly, globe-like flower heads, up to 1" wide, are arrayed in an orbital cluster at the end of tall, hairless, branched stalks. Each flower head is composed of numerous small flowers with 5 white petals, white pistils, and several white stamens. Flowers bloom from July through September.
6. Seed head: Flower heads dry out, turning to brown, spiky orbs, sharp to the touch. Seeds are embedded between spikes, and seeds themselves have a few tiny spikes that are not sharp. Seeds are ¼" long.
7. Winter ID: gray, yucca-like leaves will drop from plant into winter, but tough stalks and seed heads persist, easy to identify by dark branchlets and seed heads. Plant will eventually blow over.

END

*Silphium laciniatum, terebinthinaceum*  
compass plant, prairie dock



1. Habitat: Found in prairies, fields, and roadsides with well drained soil and full sun
2. Height: 6-9 feet
3. Compass Plant –

Stems: Tall, stout, rounded stems, unbranched except in the flowers, densely pubescent

Leaves: Deeply divided into linear-oblong lobes, pointed at the tips, densely covered in short hairs, toothless edges or with a few irregular teeth. Basal leaves are erect, stalked or stalkless, 1 to 2' long and about half as wide. Thick, coarse, sand paper-like leaves.

- 4: Prairie Dock –

Stem- Surfaces are smooth or rough. Stems are round and hairless. Stem leaves are few and alternate, or absent altogether.

Leaves- Mostly basal and persist through flowering. Basal leaves are erect, up to 18 inches long and 12 inches wide, long-stalked, coarsely toothed, wavy around the edges, heart-shaped at the base, and with prominent veins perpendicular to the midrib. Leaves are very thick, with coarse texture, like sand paper.

5. Silphiums in general:

Flower: 2-3" with 15 to 35 ray flowers (pedals) that are fertile, with small, sterile tubular disk florets. Blooms from July through September.

Seed head: After blooming, the petals fall first and a hard dense ball is formed at the end of each branched stem terminal. Slowly, large seeds fan out from the top of the ball. The seeds are brown and easily removed from the plant when ripe.

Winter ID: Stems will blow over, but thick, rigid, rough surfaced leaf material persists long into winter at ground level, often blowing down after storms.



*Helianthus mollis*  
ashy sunflower



1. Habitat: Found in dry, sandy disturbed areas such as roadsides or prairie edges.
2. Height: 2-4 feet tall
3. Stem: The central stem is covered with fine hairs, round, and deep green to reddish in color.
4. Leaves: The leaves grow in pairs on opposite sides of the stem. They are broad, lance-shaped, and clasp around the stem at the attachment point. The leaves are covered with soft hairs on both the upper and underside and are grayish green to bluish green in color.
5. Flower: The flowers grow out from the upper stems and span about 2 ½ -4 inches across. Each flower has a greenish yellow textured center surrounded by 15-30 yellow, lance-shaped petals. The blooming period is late summer to early fall.
6. Winter ID: After pedicels fall, flower receptacle retains soft, brown disk florets giving seed head a coarsely hairy appearance. Birds pick seeds from seed head, destroying the already disintegrating plant materials. Leathery gray leaves curl, falling from stem under pressure from winter storms.

END

*Helianthus divarcatu*s  
woodland sunflower



1. Habitat: Found in dry open woods or sparsely wooded bluffs or woodland edges. Prefers part shade with sandy, well drained soil.
2. Height: 2 ½ - 6 feet tall
3. Stem: the central stem is light green to dark purple, slim, and round in shape. It can be smooth or sparsely covered in short, stiff hairs. At the top of the plants the stem branches out into multiple stems that each hold a flower head.
4. Leaves: Opposite, with each pair of leaves growing at a 90 degree angle to the pair of leaves above and below them. Leaf blades are 2-6" long and up to 2" across. Oval shaped and taper to a point. Leaves are either completely toothless or have widely spaced teeth along the edges. The upper surface of the leaf blade is yellowish green to medium green and is moderately covered with short stiff hairs. The lower surface is more pale with short fuzzy hairs, particularly along the veins.
5. Flower: The flower heads are 1 ½-3" across and consist of 8-15 yellow ray florets that surround a yellowish brown center. Long, oval pedals with rounded tips. The center of the flower head has short, black, tubular structures which incorporate into short, yellow extensions. They bloom from mid-summer to early fall.
6. Seed head: After petals fall, center disk florets turn brown. The seeds are tiny, chaffy scales that become easily removed when the seeds are ripe.
7. Winter ID: multiple branching stems first lose seed heads in weather and as animals consume seeds. Stems blow over mid-winter.

END



1. ***Chamaecrista fasciculata*, partridge pea** - an annual legume that typically grows to 1-3' tall.

2. Flowers: These plants boast large, showy, yellow flowers, up to 1 inch across, and bloom from the upper leaf axils in short clusters (2-6 flowers each) from late June to September.

3. Each flower has 5 rounded yellow petals and 10 stamens (6 red and 4 yellow). Flowers are produced in an alternate pattern along the stems.

4. Leaves: Pinnately-compound. Each leaf has 8-18 pairs of small, narrow, oblong leaflets. The leaves are also sensitive to daylight, which you can observe, as they fold their leaflets in late afternoon each day as darkness approaches.

5. Seed pods: Fruit forms as narrow, flattened, dehiscent seed pods that are about 2 1/2" long.

6. Seed pods turn from green to brown before they split open and release their seeds.

7. Winter ID: Some pods sheaths will remain on stems into winter, but plant materials will degrade with each winter storm.

END.

## *Oenothera biennis* common evening primrose



- 1). ***Oenothera biennis*, common evening primrose** is a biennial, - growing as a basal rosette the first year and then bolting to flower year two.
  - 2). Height: Plants grow 2' – 7' tall.
  - 3). Leaves: Lanceolate; up to 8" long and 2" wide; and are olive to light green
  - 4). Stem: stout central stem, which sometimes may be branching; it is colored light green or red; and has white hairs
  - 5). Flower: has a panicle of light yellow flowers at the top of the plant, (or at end of major stems if plant is bushy); flowers are 1"-2" across with 4 heart shaped petals; the flowers are open from evening to early morning. *Oenothera* species have a unique cross-shaped stigma centered within their stamen
  - 6). Fruit: are narrow capsules  $\frac{3}{4}$  to 1.5 inches long with rounded edges
  - 7). Seed head: Large tubular seed heads cluster up the stalk.
  - 8). The plant dries into a tall, hard, almost woody spike, with shades from brown to bone.
  - 9). Seed heads flute and splinter apart at their tops.
  - 10). Winter ID: The dried stalk will hold it's shape upright long into the winter.
- END





1. ***Pycnanthemum tenuifolium*, narrowleaf mountainmint** typically grows in the wild in dry, open, rocky woods, dry prairies and fields, along roadsides, along streams and in open wet thickets.
2. **Height**: It is an erect, many-branched, perennial that grows 2-3' tall and features extremely narrow, almost needle-like leaves.
3. **Flowers**: It produces profuse terminal clusters of small, white flowers called “cymes” which bloom in mid to late summer.
4. All parts of the plant emit a strong, mint-like aroma when crushed.
5. **Seed head**: Cymes begin to dry and turn from green to brownish grey. Tiny sand-grain sized seeds can be shaken from the tubes clustering in the cyme.
6. **Winter ID**: Small, needle-looking leaves begin to drop in the fall, but some leaves will remain on the stem. Senesced plant can retain it’s shape and upward stance for a year or longer. For this reason, hardy remaining plant materials are easy to

identify when present.  
END

## *Pycnanthemum virginianum* Virginia mountain mint



### *Pycnanthemum virginianum*, Virginia mountain mint

- 1) **Habitat:** typically occurs in moist soils of wet meadows, along streams and ponds.
  - 2) **Height:** It is an erect, many-branched, herbaceous perennial that grows 2-3' tall.
  - 3) **Leaves:** Lanceolate, with smooth edges.
  - 4) **Flowers:** Profuse, somewhat flat-topped, terminal clusters, made up of small, white, 2-lipped flowers which bloom in mid to late summer.
  - 5) All parts of the plant emit a strong, mint-like aroma when crushed. While the flowers are very similar to narrowleaf mountainmint, the leaves are wider (up to ½") and the stems have lines of white hairs along the square edges.
  - 6) **Winter ID:** Cymes begin to dry and turn from green to brownish grey. Tiny sand-grain sized seeds can be shaken from the tubes clustering in the cyme.
  - 7) Small, narrow spade-shaped leaves begin to drop in the fall, but some leaves will remain on the stem. Senesced plant can retain it's shape and upward stance for a year or longer. For this reason, hardy remaining plant materials are easy to identify when present.
- END.



*Heliopsis helianthoides*  
ox-eye sunflower



***Heliopsis helianthoides*, ox-eye sunflower**

1. Upright, clump-forming short-lived perennial
2. Height: Typically grows to 3-4' tall
3. Flowers: (2-3" diameter) with yellow-orange rays surrounding brownish-yellow center cones that bloom throughout summer.
4. Leaves: Ovate, toothed up to 6" long.
5. Key features for differentiating this from other similar looking species: Both ray and disk flowers are fertile and the flower heads are more erect
6. Seed head: From a stiff brown stem, typical dried sunflower heads form a convex disk, protruding with small, narrow sunflower seeds, some of which can be wispy if not fully pollinated.
7. Winter ID: Seeds will fall or be eaten by birds, leaving behind a white dimpled disk that persists into winter.
8. END



### ***Echinacea purpurea*, purple coneflower**

1. Is an Illinois native, but not typical of all Illinois prairies, though restored prairies usually include this important pollinator flower.
2. Habitat: Found most commonly in mesic prairies, meadows and open woodlands
3. Height & Stem: Typically grows to 2-4' tall with stems that have purple streaks
4. Leaves: Ovate to broadly-lanceolate with widely spaced teeth
5. Flowers: Span 2.5 to 4"
4. Seed heads: Form inside black, rounded, spikey cones atop tall, robust stems that widen slightly before meeting the seed head.
5. Winter ID: A showy winter plant, Echinacea retains its shape,

stature, and black color throughout winter.



## **Monarda fistulosa, wild bergamot or bee balm**

1. Habitat: Wild bergamot occurs throughout moist to dryish soils in a variety of habitat areas
2. Height: It typically grows to 2-5' tall.
3. As a member of the mint family member, it tends to form large colonies.
4. Flowers: Lavender, two-lipped, tubular flowers that appear in dense, terminal heads on top of its square stems.
5. Leaves: are toothed and aromatic.
6. Seed heads: Cymes (mint family seed heads) consist of one large cluster of nearly 100 open-ended tubules.
7. Winter ID: Winter plants are easy to identify, retaining their shape and stature through out winter.



### ***Coreopsis tripteris*, tall coreopsis**

1. Habitat: It typically occurs in prairies, dry open woods and wood margins,
2. Height: Typically grows 3' to 8' and Flowers from mid to late summer into fall.
3. Flowers: Solitary, yellow, daisy-like flowers 1-2" diameter. Pedals are eight yellow rays extending from maroon to brown center disks. Below the flower are thin, linear floral bracts.
4. Leaves: Easy to distinguish from other coreopsis species. Leaves are divided into three to five narrow leaflets, and are arranged in pairs opposite each other along the stem.
5. Seed heads and Winter ID: Tight green seed heads turn red, then brown. Once they are nearly black, they open to disperse seeds, and leaving behind a lobed cup that slowly disintegrate under the pressure of wind and wildlife.

END

*Helenium autumnale*  
sneezeweed



Habitat: Full sun to partial shade; moderately moist to wet soils; prairies and woodland edges

Height: 3-5' tall

Leaves: Alternate, slightly serrated margins, elliptic-oblong to lanceolate-oblong shape, usually clasping stem. Leaves are 5" long and 1 ½ " wide.

Stem: Winged, angular stems occasionally branching

Flower: Blooms Aug thru Oct. – Globoid, golf ball-like, mustard colored head of tubular disk florets, surrounded by yellow, long, narrowly triangular ray florets. Petal ends are somewhat deeply notched, like very short, webbed fingers.

Seed Head and Winter ID: Plant materials dry, stem assumes boxy form with dried brown wings protruding. Leaves are fast to curl and fall. Seed head is globoid and fragile, dispersing seeds easily. Plant materials do not last long into winter.



## *Oligoneuron rigidum* stiff goldenrod



### *Oligoneuron rigidum* or stiff goldenrod

Habitat: Full to partial sun; dry to moderate moisture; prairies and woodland edges  
Stiff goldenrod grows to be 2-5' tall

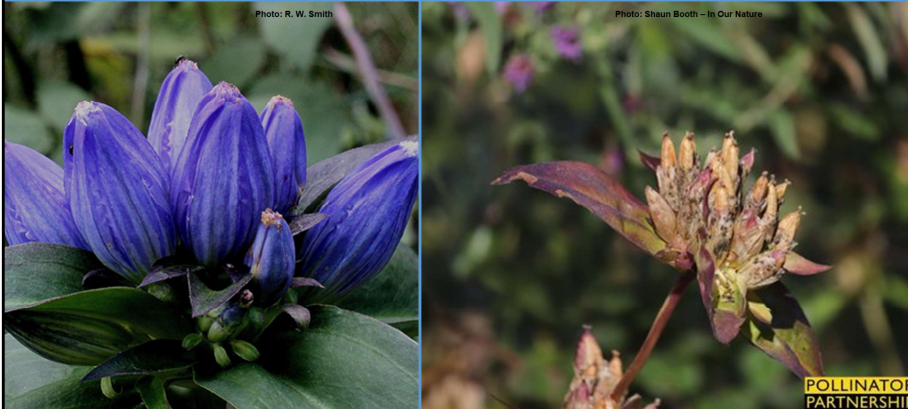
Its leaves are Alternate, stiff, gray-green, oval to oblong, hairy on both sides; lower leaves up to 10" long and 5" wide on long petioles becoming progressively smaller to top of plant with short petioles or stalkless

Stem: Unbranched lower stem; densely hairy

Blooms Aug thru Oct. - Its Yellow flower heads are ~0.5" wide, with 7-14 petal-like ray flowers surrounding a central disk; flowers arranged in flat to rounded clusters at top of plant; branch below flower cluster has many small leaf-like bracts.

Seed head: In mid-late October, somewhat flat and widely branching clusters of tiny fluffy seeds disperse quickly, leaving behind clusters of small bone-colored receptacles. Tough, reddish stems retain leathery, grayish leaves well into winter. Plant may blow over and lay intact for some time.

*Gentiana andrewsii*  
bottle gentian



Habitat: Mesic to moist soils, full sun to part shade.

Height: 1-2' tall

Stem: multiple stems emerge from a taproot but the stems do not branch out once they emerge. The central stem is round, hairless, and either light green or purple.

Leaves: Opposite, up to 4 ½ " long and 2" across. The leaves are lance to oval shaped with smooth edges and parallel veins. The upper surface of the leaf is dark green and shiny and both sides of the leaf are free of hairs. The highest tier of leaves are often whorled.

Flower: Clusters of bottle shaped, tubular, violet flowers, with petals fused at ends, holding flower closed (until pried open by a bumble bee). The blooming period is from late summer to early fall and lasts about a month.

Seed head: Fused petals become brown and papery. As seeds ripen, the seams of the papery wrapping split open and release winged seeds which disperse by wind.

Winter ID: Leaves and stem turn red to brown, lay on ground level and disintegrate under pressure of animals and weather.



1. Of the many different species of asters - Smooth blue and New England are common and great for pollinators.
2. Asters are perennial.
3. Smooth blue asters typically occurs in prairies, rocky glades, and dry open woods, where New England asters tolerate mesic to moist soil.
4. Smooth blue asters are 1½–3' tall, while New England asters are 3 – 6 feet tall. Both branch generously at the upper part of the plant.
5. Alternate leaves occur along the entire length of these stems, up to 4" long, becoming gradually smaller in size toward the top of the plant. Smooth blue asters have smooth oblong to ovate leaves, while New England asters have lance shaped leaves.
6. Both lower and upper leaves clasp their stems.
7. Small flowers with violet blue to purple (sometimes white) rays and yellow center disks appear in open, loose, panicle-like

clusters in the fall

6. Asters typically go to seed in November. Plant disintegrates quickly, and plant materials are rarely observed in winter.





**POLLINATOR  
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