Quick Guide for New York General Pollinator & Monarch Habitat Seed Mixes

Whorled: Bloom Color Stem Spotted Joe Pye Weed (Eutrochium maculatum) Pink Smooth-hairy Whorled Rosinweed (Silphium trifoliatum) Yellow Smooth Culver's root (Veronicastrum virginicum) White Smooth-hairy Opposite: Bloom Color Stem Yellow Lance-Leaved Coreopsis (Coreopsis lanceolata) Mostly hairless Oxeve Sunflower (Heliopsis helianthoides) Yellow Smooth Spotted Beebalm (Monarda punctata) Green Hairy, squared stem Purple Bergamot (Monarda media) Hairy, squared stem Blue Vervain (Verbena hastata) Purple Rough short hairs Hoary Vervain (Verbena stricta) Purple Hairy – whitish hairs Blue Mistflower (Conoclinium coelestinum) Purple Soft/Downy, Purplish Smooth-weakly hairy, soft Swamp Milkweed (Asclepias incarnata) Pink Wild Bergamot (Monarda fistulosa) Pink Hairy, squared Common Milkweed (Asclepias syriaca) Pink Smooth-wooly Boneset (Eupatorium perfoliatum) White Hairy Rattlesnake Master (Eryngium yuccifolium) White Smooth Tall White Beardtongue (Penstemon digitalis) White Smooth-hairy, fine White Clustered Mountainmint (Pycnanthemum muticum) Smooth, squared stem Narrowleaf Mountainmint (*Pycnanthemum tenuifolium*) White Smooth, squared stem White Virginia Mountainmint (Pycnanthemum virginianum) Hairy, squared stem **Grasses:**



Deertongue (Dichanthelium clandestinum)	Green	Hairy
Canada Wildrye (Elymus canadensis)	Green	Smooth
Virginia Wildrye (Elymus virginicus)	Green	Smooth







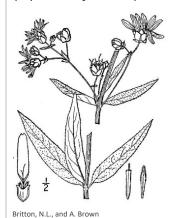
Alternate:

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	Bloom Color	Stem
Eastern Columbine (Aquilegia canadensis)	Red	Hairy, soft
Cardinal Flower (Lobelia cardinalis)	Red	Smooth
Perennial Blanketflower (Gaillardia aristata)	Orange	Hairy
Butterfly Milkweed (Asclepias tuberosa)	Orange	Hairy, soft
Partridge Pea (Chamaecrista fasciculata)	Yellow	Smooth-hairy
Plains Coreopsis (<i>Coreopsis tinctoria</i>)	Yellow	Smooth
Flat-top Goldentop (Euthamia graminifolia)	Yellow	Smooth, thin row fine white hairs
Common Sneezeweed (<i>Helenium autumnale</i>)	Yellow	Smooth-hairy
Purple Sneezeweed (Helenium flexuosum)	Yellow	Smooth-hairy
Narrowleaf Sunflower (Helianthus angustifolius)	Yellow	Hairy, soft
Blackeyed Susan (<i>Rudbeckia hirta</i>)	Yellow	Hairy
Orange Coneflower (Rudbeckia fulgida)	Yellow	Sparsely hairy
Wild Senna (Senna hebecarpa)	Yellow	Smooth-hairy
Golden Alexanders (Zizia aurea)	Yellow	Smooth
Gray Headed Coneflower (Ratibida pinnata)	Yellow	Rough, slightly ridged
Wreath Goldenrod (Solidago caesia)	Yellow	Smooth, bluish
Early Goldenrod (Solidago juncea)	Yellow	Smooth
Rough Goldenrod (Solidago patula)	Yellow	Smooth, squared stem
Wrinkleleaf Goldenrod (Solidago rugosa)	Yellow	Rough, very hairy
Showy Goldenrod (Solidago speciosa)	Yellow	Smooth-hairy, round
Yellow Wingstem (Verbesina alternifolia)	Yellow	Rough, hairy (scabrous), winged
Great Blue Lobelia (<i>Lobelia siphilitica</i>)	Blue	Smooth-Hairy, coarse
Purplestem Aster (Symphyotrichum puniceum)	Blue	Hairy, reddish
Smooth Blue Aster (Symphyotrichum laeve)	Blue	Smooth, whitish bloom
Ohio Spiderwort (<i>Tradescantia ohiensis</i>)	Purple	Smooth, sometimes glaucous
New York Ironweed (Vernonia noveboracensis)	Purple	Smooth, rough, or soft hairs
New England Aster (Symphyotrichum novae-angliae)	Purple	Hairy
Zigzag Aster (Symphyotrichum prenanthoides)	Purple	Hairy-smooth
New York Aster (Symphyotrichum novi-belgii)	Pink	Smooth
Tall Blazing Star (Liatris aspera)	Pink	Rough and stiff
Dense Blazing Star (<i>Liatris spicata</i>)	Pink	Usually smooth, sometimes coarse
Purple Coneflower (Echinacea purpurea)	Pink	Smooth
Pennsylvania Smartweed (<i>Polygonum pensylvanicum</i>)	Pink	Smooth-hairy on upper stem
Flat-Topped White Aster (<i>Doellingeria umbellata</i>)	White	Smooth
Calico Aster (Symphyotrichum lateriflorum)	White	Hairy, soft – smooth



Whorled Leaf Arrangement

Whorled Rosinweed (Silphium trifoliatum)



Species

Stem smooth.

Leaves rough.

Middle leaves in whorls of 3 or 4

Flower heads 1.5-2" wide, 15-20 rays

ID Tips

Bloom: July-September

Spotted Joe Pye Weed



Alex Katovich, via Bugwood of 779037

Stem smooth to covered in short, fine hairs.

Sometimes glaucous (blueish waxy coating).

Stem can be deep purple or green with purple spots.

Bloom: July-September

Culver's root (Veronicastrum virginicum)





Stem smooth, sometimes hairy.

Whorled, 3-7 leaves.

Finely toothed leaves.

White tubular flowers in spikes. Bloom:

June-August







Opposite Leaf Arrangement

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	Species	ID Tips
Lance-Leaved Coreopsis (Coreopsis lanceolata)		Stem mostly hairless, may have smooth or short soft hairs.
		Basal leaves are lanced-shaped and lack lobes. 3-7 lobes at the tip of the ray (petals).
Britton, N.L., and A. Brown		Bloom: May-August
Oxeye Sunflower		
(Heliopsis helianthoides)		Stem and leaves smooth.
		Prominent veins on leaves.
and the		Disk/centers are cone shaped.
7		Rays are fertile unlike true sunflowers.
Britton, N.L., and A. Brown		Bloom: June-September
Spotted Beebalm (Monarda punctata)		Stem covered in hairs.
May solf		Squared stem.
		Leaf margins toothed.
		Leaves smooth to fine, short hairs.
Britton, N.L., and A. Brown	Jeff McMillian, via Bugwood,org	Bloom: July-September
Purple Bergamot		Stem smooth or sparsely hairy.
(Monarda media)	San Marian Marian	Squared stem.
		Leaf triangular shaped (deltoid) and toothed.
		Citrus mint aroma.
Britton, N.L., and A. Brown		Bloom: June-August





	Species	ID Tips
Blue Vervain (Verbena hastata) NRCS National Wetland Team		Stem covered in rough, short hairs. Leaves can be smooth, rough to the touch, or with stiff sharp hairs. Toothed leaves. Bloom: July-September
Hoary Vervain (Verbena stricta)	Peter Dziuk, Minnesota Dept. of Ag., via Bugwood.org.	Stem is covered in whitish hairs. Flowers purple, sometimes pink. Leaves egg shaped, coarsely toothed, hairy on both sides. Bloom: June-September
Blue Mistflower (Conoclinium coelestinum)		Stem soft/downy, purplish. Triangular shaped leaves. Also known as <i>Eupatorium coelestinum</i> . Bloom: September-Oct
Swamp Milkweed (Asclepias incarnata) NRCS National Wetland Team		Stem smooth to weakly covered in short, soft hairs. Leaf margin smooth. Milky sap when leaves/stem are broken. Bloom: June-August





Species ID Tips Wild Bergamot (Monarda fistulosa) Stem squared; covered in hairs. Leaves thinly hairy or smooth; Leaf margins toothed. Citrus-mint aroma. Bloom: July-September Common Milkweed (Asclepias syriaca) Stem smooth to wooly. Leaves softly hairy and wooly (tomentose) underneath, leaf margins smooth. Fragrant flowers. Milky sap when leaf/stems are broken. Bloom: June-August Britton, N.L., and A. Brown **Boneset** (Eupatorium perfoliatum) Stem covered in hairs. Stem appears to pass through the leaf. Leaves have a wrinkly texture. Bloom: July-September NRCS National Wetland Team Tall White Beardtongue Stem smooth to covered in short, fine hairs. (Penstemon digitalis) Leaves clasping stem, cordate shaped leaves; shiny. Stamen sticks out like a tongue. Finely toothed leaf margins. Bloom: June-July NRCS National Wetland Tean





	Species	ID Tips
Clustered Mountainmint (Pycnanthemum muticum)		Stem smooth. Leaves egg shaped, sharply toothed. Veins prominent. Bloom: July-September
Narrowleaf Mountainmint (Pycnanthemum tenuifolium) Britton, N.L., and A. Brown		Smooth stem, squared. Leaves very narrow with prominent central vein, smooth leaf margins. Many branches, gives a bushy appearance. Pleasant minty scent. Bloom: June-September
Virginia Mountainmint (Pycnanthemum virginianum)	https://www.illinofswildflowersinfo/prairie	Hairy stem, squared. Lance shaped leaves, stalkless. Minty scent. Bloom: June-September







Grasses

Species			ID Tips
Deertongue (Dichanthelium clandestinum) NRCS National Wetland Team	State Weed Lab, via Bugwood org	Alternate	Stem (culm) covered in hairs. Leaves are hairless. Base of leaf blades surround sheath. Produces seed twice: spring and late summer.
Canada Wildrye (Elymus canadensis) Dave Powell, Hitchcock, A.S. (rev. A. Chase)	USDA Forest Service, via Bugwood.org	Alternate	Stem (culm) smooth. Short rough hairs on leaves (scabrous). Bristles are coarse, thick, and curved outward.
Virginia Wildrye (Elymus virginicus) NRCS National Wetland Team	Allain, USGS Wetlands Research Center	Alternate	Stem (culm) smooth. Leaves are hairy to smooth on top and rough to the touch on the bottom (scaberulous). Awns (stiff sharp bristles on flowerhead) are shorter than <i>E. canadensis</i> .

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Alternate Leaf Arrangement

Species **ID** Tips Eastern Columbine (Aquilegia canadensis) Stem covered in soft hairs. Leaflets are divided into 3 rounded lobes; may be further subdivided. Leaves attached predominately at the base of the plant. Bloom: May-June Cardinal Flower (Lobelia cardinalis) Stem smooth. Leaves offset from each other on the stem. Leaves are toothed. Lower surface of leaves often purple. Bloom: July-September Perennial Blanketflower (Gaillardia aristata) Stem and leaves covered in hairs. Center/disk is fuzzy. Bloom: May-September **Butterfly Milkweed** Stem covered in soft hairs. (Asclepias tuberosa) Leaf margin smooth. No milky sap from stem/leaves when broken. Showy, orange umbel flowers.



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Bloom: June-August

Species **ID** Tips Partridge Pea (Chamaecrista fasciculata) Stem smooth or with minute hairs. Annual 5-18 pairs of leaflets; sometimes leaves will fold when touched. Bloom: July-September Britton, N.L., and A. Brown Plains Coreopsis Stem smooth. (Coreopsis tinctoria) Annual No basal leaves. 3 lobes at the tip of the ray (petals). Leaves very narrow. Bloom: June-September Britton, N.L., and A. Brown Common Sneezeweed (Helenium autumnale) Stem smooth or hairy. Rays droop, 3-toothed. Bases of the leaves extend down the stem as wings. Bloom: August-October NRCS National Wetland Team Purple Sneezeweed Stem smooth or hairy. (Helenium flexuosum) 3-lobed rays (petals). Disk (center) purple or brown. Bases of the leaves extend down the stem as wings. Bloom: August-October Ison Debarros, via USDA PLANTS NRCS National Wetland Team





Species **ID** Tips Narrowleaf Sunflower (Helianthus angustifolius) Stem covered in short, soft hairs. Lower leaves are usually opposite. Extremely narrow and stiff leaves. Tall, 2-8ft. Bloom: August-October Orange Coneflower (Rudbeckia fulgida) Stem sparsely hairy. Less hairy than R. hirta. Disk (center) brown to purple/red. Bloom: July-September Blackeyed Susan (Rudbeckia hirta) Stem covered in hairs. Leaves very hairy. Disks/centers are blackish/brown. Bloom: June-October Gray Headed Coneflower Stem rough, slightly ridged. (Ratibida pinnata) Leaves rough and stiff. Leaves sometimes have an anise scent if crushed. Disk/center grey/brown, knob shaped. Distinctive drooping rays.

Photo: Shawnna Clark



Britton, N.L., and A. Brown



Bloom: July-September

Species ID Tips Yellow Wingstem (Verbesina alternifolia) Rough hairy stems (scabrous). Wings on the stem. 10 or less rays (petals), drooping. Bloom: July-October Flat-top Goldentop or Stem mostly smooth except for thin rows Grass-leaved Goldenrod of fine white hairs. (Euthamia graminifolia) Stem branched at the top, bushy. Grass-like leaves. 3 veins on larger leaves, sometimes 2 additional. Bloom: July-September NRCS National Wetland Team Wreath Goldenrod or Blue-Stemmed Goldenrod Smooth stem, bluish. (Solidago caesia) Flowers grow in axils. 3-4 rays (petals). Sharply toothed leaves. Bloom: August-October. Britton, N.L., and A. Brown Early Goldenrod Stem smooth. (Solidago juncea) Basal leaves sharply toothed. Flowers in curved, one-sided clusters forming a large terminal cluster. Stem leaves decrease in size rapidly upwards. Bloom: July-September



Britton, N.L., and A. Brown



	Species	ID Tips
Wrinkleleaf Goldenrod (Solidago rugosa)	Rob (Faullede), Saul College, via Buswood org. 5475376	Stem very hairy or rough. Leaves toothed. Flowers in curved, one-sided clusters forming a large terminal cluster. Leaves usually rough with deep veins. Bloom: July-October
Rough-Leaved Goldenrod or Swamp Goldenrod (Solidago patula)	William S. Justice, via USDA PLANTS © William S. Justice	Stem smooth, leaves rough. Stem angled to squared. Upper leaf surface rough, underneath is smooth. Bloom: July-October
Showy Goldenrod (Solidago speciosa)	Photo: Shawnna Clark	Stem smooth to hairy. Stem is round (unlike <i>S. patula</i>). Long basal leaves present, wither away as it matures/flowering. Inflorescence curves upward. Bloom: Sept-Nov
Wild Senna (Senna hebecarpa)		Stem smooth to bearing long, soft, shaggy, unmatted hairs. On the upper side of a petiole (near its base) is a small club-shaped gland. Wild senna seeds open when ripe, Maryland senna remains tightly closed. Bloom: July-August





ID Tips Species Golden Alexanders (Zizia aurea) Stem smooth, shiny. One of the earliest species to bloom. Toothed leaflet margins. Yellow flower umbel (umbrella shaped). Bloom: April-June Great Blue Lobelia (Lobelia siphilitica) Stem smooth to coarse, stiff, but not sharply pointed hairs (hirsute). Leave margins finely toothed. Bloom: July-October Britton, N.L., and A. Brown Smooth Blue Aster (Symphyotrichum laeve) Stem smooth, whitish bloom. Leaves thick, smooth to the touch. Middle and upper leaves w/heart shaped base, clasps stem. Bloom: August-October Purplestem Aster (Symphyotrichum Stem hairy, reddish. puniceum) Larger leaves noticeably toothed. Leaves are NOT heart shaped. Leaves clasping base. Bloom: August-October NRCS National Wetland Team





Species **ID** Tips Ohio Spiderwort Stem smooth, whitish/bluish waxy coating (Tradescantia ohiensis) (glaucous). Young stems/leaves have long fine hairs. Leaves margins smooth, grass like. Blooms in the morning or during cool, cloudy day. Bloom: May-July New York Ironweed Stems smooth, rough, or covered in soft (Vernonia noveboracensis) hairs. Leaves finely toothed; slightly rough above, underneath with fine to wooly hairs (tomentose). Bracts with long threadlike tips. Bloom: July-September **New England Aster** Stem covered in hairs. (Symphyotrichum novaeangliae) Leaves clasping stem. Disks yellow, Rays purplish (petals). New England Aster usually has more rays (petals) than NY Aster. Bloom: August-October Britton, N.L., and A. Brown New York Aster (Symphyotrichum novi-Stem smooth to hairy. belgii) Narrow leaves, clasping stem. Disk yellow, red, or purple. Rays blue, purple, pink, red, or white (petals). NY aster is usually shorter and has thinner stems than New England Aster. Bloom: August-October Britton, N.L., and A. Brown





	Species	ID Tips
Tall Blazing Star (Liatris aspera) John Byrd, Miss. State Univ. via Bus vocas pries Ucan 1971039	Left McMillan by Almost Palits, Via USOA PLANTS	Stem rough and stiff. Button shaped flower heads, spaced. Grass-like leaves, short. Bloom: July-October
Dense Blazing Star (Liatris spicata)		Stems usually smooth, but sometimes coarse/stiff hairs are present. Grass-like leaves. Spike dense with flower heads, crowded and overlapping. Bloom: July-September
Zigzag Aster (Symphyotrichum prenanthoides) Britton, N.L., and A. Brown	Photo: Shawnna Clark	Stem hairy to smooth. Stem in zigzag pattern. Leaves clasping noticeably enlarged where it clasps the stem. Leaf margins toothed, lower portion of the leaf is narrow and entire (smooth). Bloom: August-October
Purple Coneflower (Echinacea purpurea) Britton, N.L., and A. Brown		Stem smooth. Green stem with small purple streaks with scattered white hairs. Leaves smooth to bristly; margins becoming coarsely toothed with maturity. Bloom: July-September





	Species	ID Tips
Pennsylvania Smartwood	Species	ID Tips
Pennsylvania Smartweed (Polygonum pensylvanicum) NRCS National Wetland Team	Robin R. Buckelley, via USDA PLANTS Bate III floration	Upper part of the stem has short glandular hairs. Lance shaped leaves. Leaves entire (smooth). Jointed stems. Bloom: June-October
Flat-Topped White Aster (Doellingeria umbellata) Britton, N.L., and A. Brown	Einer Verhasselt, via Bugwood org	Stem smooth. Leaf margins smooth. Sparse, short, soft hairs on the underside of the leaf. Bloom: July-September
Rattlesnake Master (Eryngium yuccifolium)		Stem smooth. Button-like flower heads, whitish green. Lower leaves stiff and spiny edged, parallel veined. Bloom: July-September
Calico Aster (Symphyotrichum lateriflorum) NRCS National Wetland Team	Thomas G Barnes, via USDA PLANTS	Stem smooth to covered in soft hairs. Leaf margins toothed and smooth. Top of leaf smooth to hairy, underneath smooth with hairy midrib (central vein). Common name refers to diverse colors of the disk (center). Bloom: August-October



