

Asters, Goldenrods, and Coneflowers: Pollen and Nectar Workhorses

Cincinnati Nature Center
Native Plant Club
August 7, 2025



Terri Litchfield
Randy Litchfield

Trip Itinerary

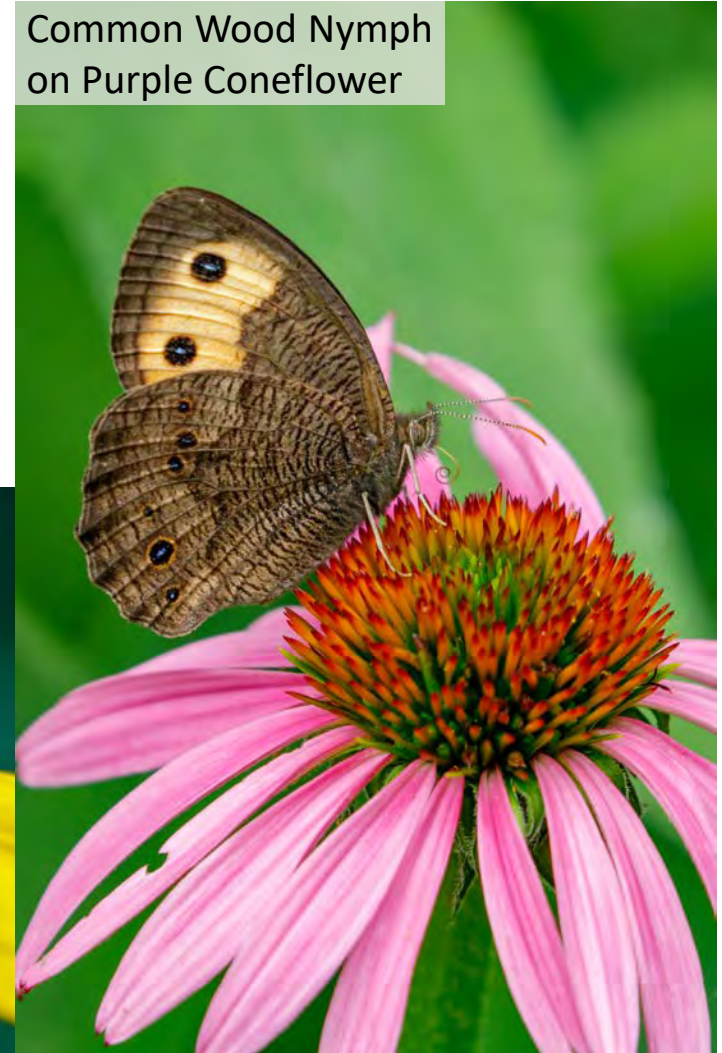
- Classification
- The Asteraceae family
- Focus on...
 - Asters
 - Goldenrods
 - Coneflowers
- Ecological services provided
- Gardening with these plants

Gardens as Gathering Places

Yellow-Jacket Hover Fly on Black-eyed Susan



Common Wood Nymph
on Purple Coneflower



Brown-belted Bumble Bee on Gray-Headed Coneflower

Gardens as Gathering Places

Four-toothed Mason & Dark Paper Wasps
on Riddell's Goldenrod



Greater Bee Fly on Sky Blue Aster



Mining Bee in Riddell's Goldenrod



Photos by Randy Litchfield

Classification

Kingdom: Plantae

Division: Magnoliophyta

Class: Magnoliopsida

Order: Asterales

Family: Asteraceae

Genus:

Species:

Classification

Family: Asteraceae



Classification

ASTERACEAE

BONAP.ORG

North America

480 genera

2874 species

Result Page

BONAP's Taxonomic Data Center (TDC)
North American Vascular Flora

[Query Map](#) [Zip County](#) [Family Key](#) [Bio. Attributes](#) [Selected Characters](#) [Query Photo Gallery](#) [How to Cite This Website](#) [Map Color Key](#) [Customized Geographic Database](#)

ASTERACEAE Aster Family

[External Internet Links](#)

Image Gallery for Plant Taxon: ASTERACEAE
[Hide photographs](#)

Biological Attributes
Floristic Synthesis of NA © 2014 BONAP

Major plant group
Flowering plant
Dicot flowering plant

Habit
Apomictic
Dwarf or creeping shrub
Forb
Shrub or subshrub
Succulent
Tree
Vine or climbing plant
Herbaceous vine
Liana (woody vine)
Tendrils without disks
Vine plant

Trophic level
Epiphytic/hemi-epiphytic plant
Parasitic/hemi-parasitic plant

Duration
Annual
Biennial
Perennial

Nomenclature Query [Can't find a plant name? Click Here](#) OR [Click here to see Excluded/Anomalous names](#)

Families
A total of 331 families are reported. Selecting a specific family will produce a list of its lower taxa.

APG III - Mod. Classification

[Search for Family...](#)

Genera
A total of 480 genera and 2874 species and nothospecies are reported. Selecting a specific genus will produce a list of its lower taxa.

[seri](#)

Species
A total of 2874 species and nothospecies are reported. Select any name for additional information. Only 1500 names are showing. If the name you need is not visible, please type the first few letters of the scientific name in the search box. [Previous](#) [Next](#)

[Search for Species or Epithet...](#)

Families List:
APIACEAE
APOCYNACEAE
APODANTHACEAE
APONOGETONACEAE
AQUIFOLIACEAE
ARACEAE
ARALIACEAE
ARAUCARIACEAE
ARECACEAE
ARISTOLOCHACEAE
ASTERACEAE
ASTROGALACEAE
ASPHODELACEAE
ASPLENIACEAE
ASTELIACEAE
ATHYRIACEAE
BALSAMINACEAE
BASILLACEAE
BATEACEAE

Genera List:
Acamptopappus
Acanthospermum
Achillea
Achyrrachaena
Acmella
Acourtia
Adenocaulon
Adenophyllum
Adenostemma
Ageratina
Ageratum
Agnorhiza
Agoseris
Almutaster
Amauriopsis
Amberboa
Amblyolepis
Amblyopappus
Ambrosia
Ammannia

Species List:
Acamptopappus shockleyi
Acamptopappus sphaerocephalu
Acanthospermum australe
Acanthospermum hispidum
Acanthospermum humile
Achillea ageratum
Achillea alpina
Achillea alpina ssp. multiflora
Achillea filipendulina
Achillea ligustica
Achillea millefolium
Achillea nobilis
Achillea ptarmica
Achillea tomentosa
Achyrrachaena mollis
Acmella decumbens
Acmella iodescaea

Kartesz, J.T., The Biota of North America Program (BONAP). 2015. *North American Plant Atlas*. (<http://bonap.net/napa>). Chapel Hill, N.C. [maps generated from Kartesz, J.T. 2015. Floristic Synthesis of North America, Version 1.0. Biota of North America Program (BONAP). (in press)].

Classification

ASTERACEAE

Ohio

109 genera

346 species

Result Page

North American V

Synonyms and Infrataxa Authors Common names Taxa Per Page
Show Infrspecific Taxa Hide Authors Show Common names 1500

Query Map Zip/County
Family Key Bio. Attributes
Selected Characters Query Photo Gallery

Can't find a plant name? Click Here OR Click here to see Excluded/Anomalous names

Name Reset

Nomenclature Query

Families

A total of 191 families are reported. Selecting a specific family will produce a list of its lower taxa.

APG III - Mod. Classification

Search for Family...

- ASPLENIACEAE Spleenwort Family
- ASTERACEAE Aster Family**
- ATHYRIACEAE Lady Fern Family
- BALSAMINACEAE Touch-Me-Not Family
- BERBERIDACEAE Barberry Family
- BETULACEAE Birch Family
- BIGNONIACEAE Trumpet-Creeper Family
- BLECHNACEAE Chain Fern Family
- BORAGINACEAE Borage Family
- BRASSICACEAE Mustard Family
- BUTOMACEAE Flowering-Rush Family
- BUXACEAE Box Family
- CABOMBACEAE Watershield Family
- CACTACEAE Cactus Family
- CALYCANTHACEAE Sweetshrub Family
- CAMPANULACEAE Bellflower Family
- CANNABACEAE Hemp Family
- CAPRIFOLIACEAE Honeysuckle Family
- CARYOPHYLLACEAE Pink Family
- CELASTRACEAE Bittersweet Family
- CERATOPHYLLACEAE Hornwort Family
- CERCIDIPHYLLACEAE Katsura-Tree Far
- CISTACEAE Rock-Rose Family
- CLEOMACEAE Spider-Flower Family
- COLCHICACEAE Autumn-Crocus Family

Genera

A total of 109 genera and 346 species and nothospecies are reported. Selecting a specific genus will produce a list of its lower taxa.

Search for Genus...

- Achillea Yarrow
- Ageratina Snakeroot
- Ageratum Whiteweed
- Ambrosia Burr-Ragweed, Ragweed
- Amphiachyris Broomweed
- Anaphalis Pearly-Everlasting
- Antennaria Pussytoes
- Anthemis Chamomile
- Arctium Burdock
- Arnoglossum Indian-Plantain
- Arnosotis Lamb-Succory
- Artemisia Chicken-Sage, Sagebrush, Wormwood
- Aster Aster
- Bellis Lawndaisy
- Bidens Beggarticks
- Boltonia Doll's Daisy
- Brickellia Brickellbush
- Calendula Field-Marigold
- Carduus Plumeless-Thistle
- Carthamus Distaff-Thistle
- Centaurea Cornflower, Knapweed, Star-Thistle
- Chamaemelum Dog-Fennel
- Chrysanthemum Florists' Chrysanthemum
- Chrysogonum Green-and-Gold
- Chrysopsis Golden-Aster

Species

A total of 346 species and nothospecies are reported. Select any name for additional information.

Search for Species or Epithet...

- Achillea millefolium Common Yarrow
- Achillea ptarmica Pearl Yarrow
- Ageratina altissima White Snakeroot
- Ageratina altissima var. altissima
- Ageratina aromatica Lesser Snakeroot
- Ageratum houstonianum Bluemink
- Ambrosia artemisiifolia Annual Ragweed
- Ambrosia bidentata Lance-Leaf Ragweed
- Ambrosia ×helenae
- Ambrosia psilostachya Perennial Ragweed
- Ambrosia trifida Great Ragweed
- Amphiachyris dracunculoides Prairie Br
- Anaphalis margaritacea Pearly-Everlasting
- Antennaria howellii Small Pussytoes
- Antennaria howellii ssp. canadensis
- Antennaria howellii ssp. neodioica
- Antennaria howellii ssp. petaloidea
- Antennaria neglecta Field Pussytoes
- Antennaria parlinii Parlin's Pussytoes
- Antennaria parlinii ssp. fallax
- Antennaria parlinii ssp. parlinii
- Antennaria solitaria Single-Head Pussytoes
- Antennaria virginica Shale-Barren Pussytoe
- Anthemis arvensis Corn Chamomile

Classification

Kingdom: Plantae
Division: Magnoliophyta
Class: Magnoliopsida
Order: Asterales

Family: Asteraceae

Ohio: 109 Genera, 346 Species



Liatris ligulistylis (meadow blazingstar)



Helianthus mollis (downy sunflower)



Silphium terebinthinaceum (prairie dock)

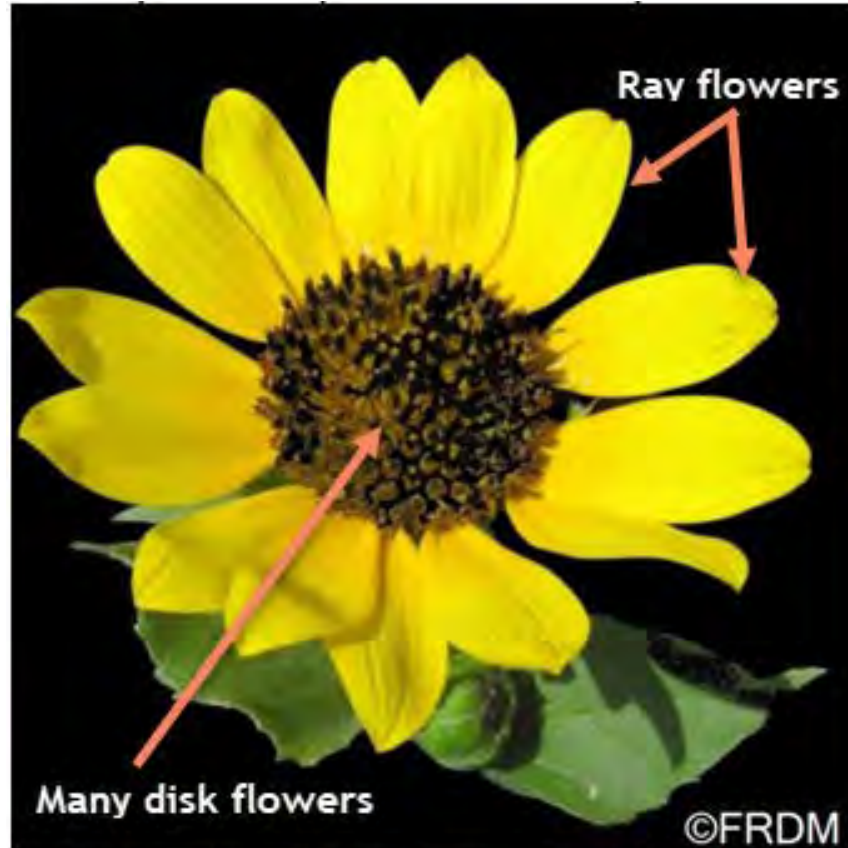
Photos by Randy Litchfield

Asteraceae Family



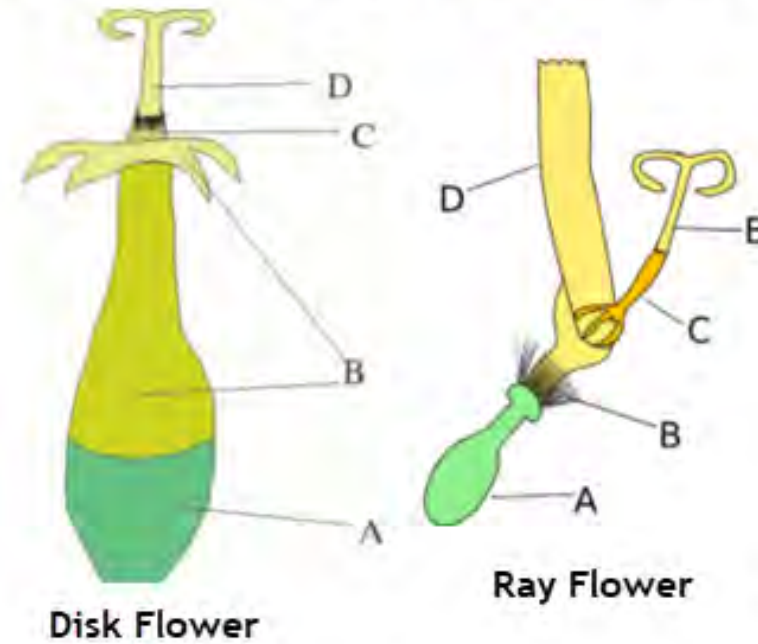
COMPOSITE FLOWERS

Asteraceae Family



Sunflower – photo © Frank Rose, Arizona Desert Museum

Here are drawings of the individual flowers.



Drawings from Wikimedia Commons

A – Ovary
B – Pappus
C – Anthers
D – Style

A – Ovary
B – Pappus
C – Anthers
D – Petals
E – Style

Asteraceae Family



Asteraceae Family



Black-eyed Susan



Green-headed Coneflower



Brown-eyed Susan



Upright Coneflower



Orange Coneflower



Purple Coneflower

DISK FLOWERS



New England Aster

Asteraceae Family

GENERA OF THE ASTERS, GOLDENRODS AND CONEFLOWERS

Asters

Doellingeria

Eurybia

Ionactis

Seriocarpus

Symphyotrichum

Goldenrods

Euthamia

Oligoneuron (?)

Solidago

Coneflowers

Echinacea

Dracopsis

Ratibida

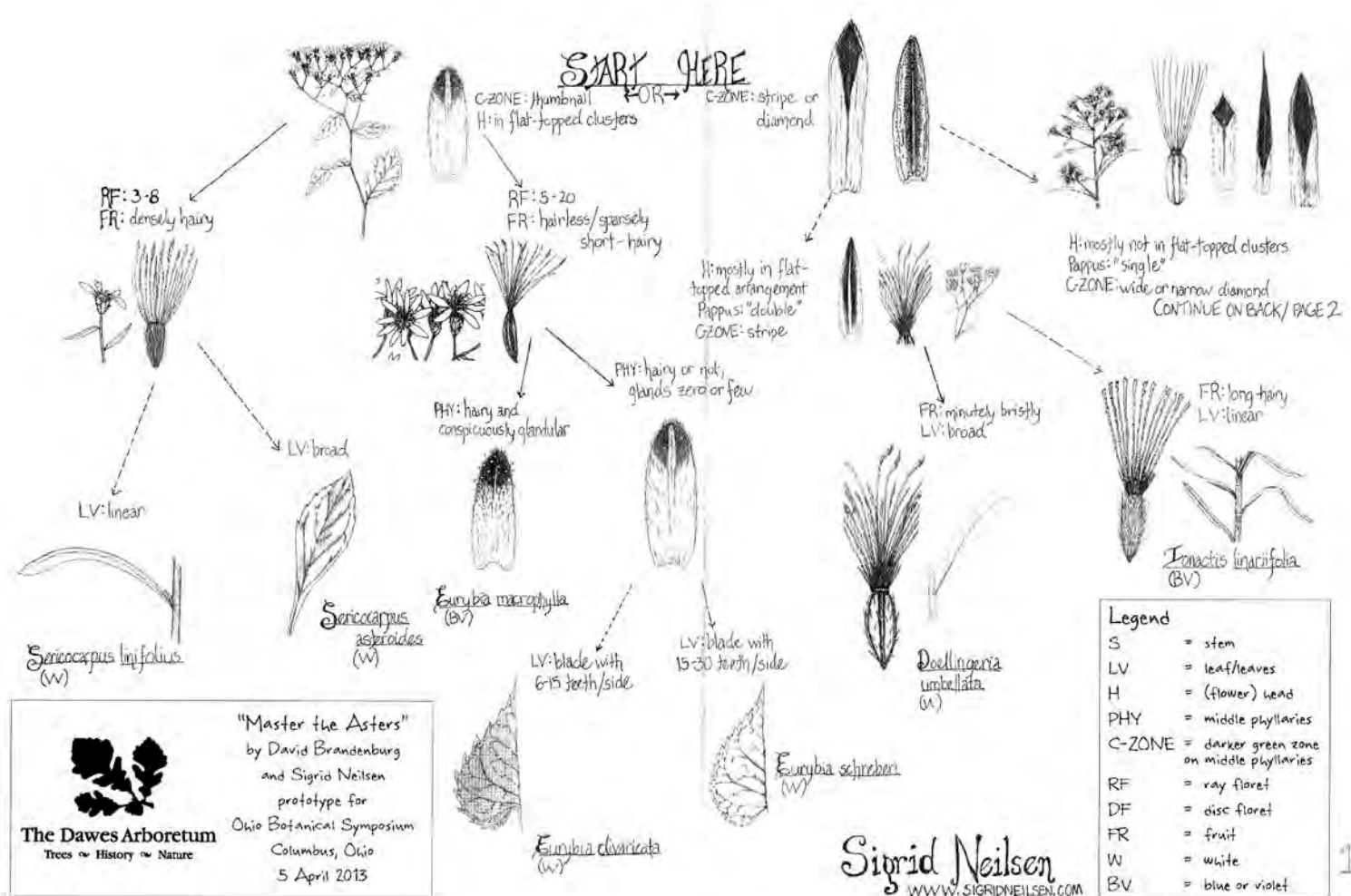
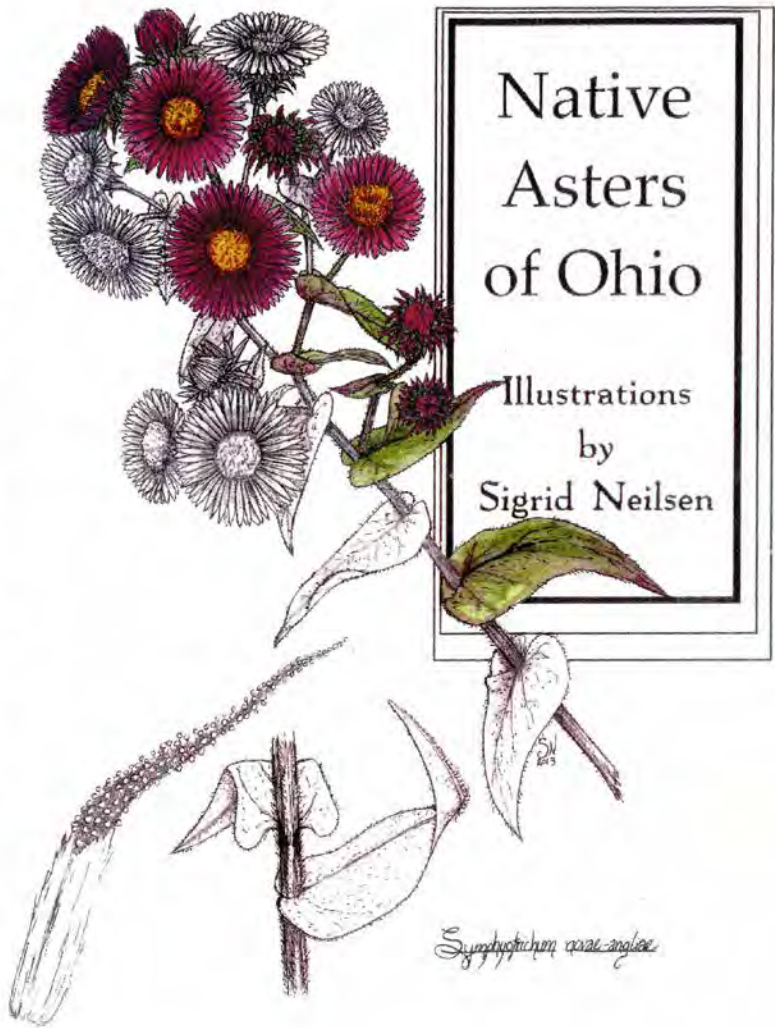
Rudbeckia

Asters

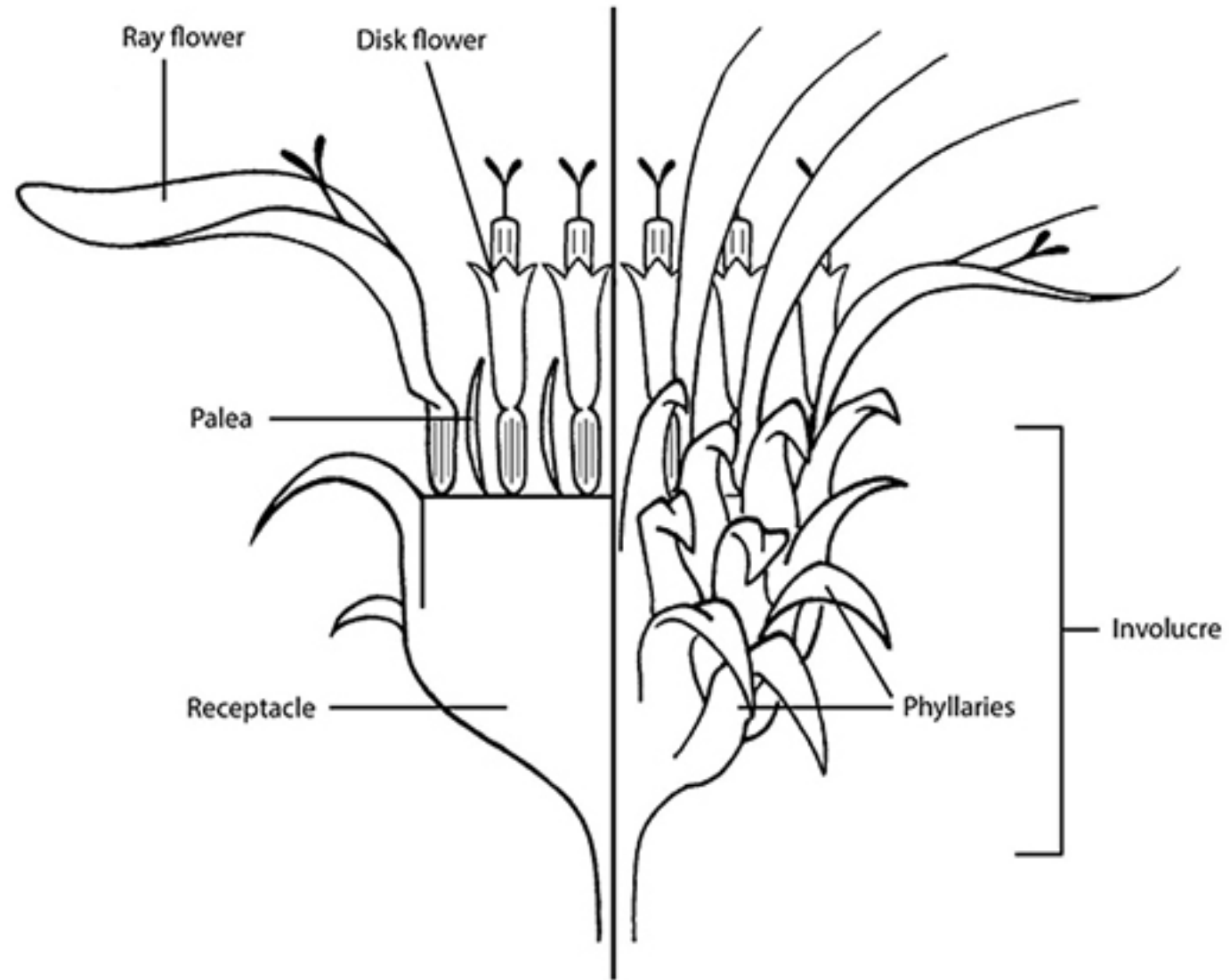
Eastern U.S. Asters

- Moved out of the Aster genus
- Perennial life cycle
- Alternate leaf arrangement
- Prominent basal leaves (most species)
- Height range: 1' to 7'
- Full sun, medium to dry soil preferred (most species)
- Most tend to be “leggy” and can be cut back in early summer
- Some are favorites of deer and rabbits

Asters



Asters



Asters

- *Doellingeria*
- *Eurybia*
- *Ionactis*
- *Seriocarpus*
- *Symphyotrichum*

Asters, Doellingeria

***Doellingeria umbellata* – flat-topped aster**

Eurybia divaricata – white wood aster

E. macrophylla – large-leaved aster

E. schreberi – Shreber's aster

Ionactis linariifolia – stiff aster

Seriocarpus asteroides – toothed whitetop aster

Symphyotrichum spp.



Asters, Eurybia

***Eurybia divaricata* – white wood aster**

***E. macrophylla* – large-leaved aster**

***E. schreberi* – Shreber's aster**

Doellingeria umbellata – flat-topped aster

Ionactis linariifolia – stiff aster

Seriocarpus asteroides – toothed whitetop aster

S. Linifolius – narrowleaf whitetop aster

Symphyotrichum spp.



White Wood Aster



Large-leaved Aster



Shreber's Aster

Asters, Ionactis

***Ionactis linariifolia* – stiff aster**

Doellingeria umbellata – flat-topped aster

Eurybia divaricata – white wood aster

E. macrophylla – large-leaved aster

E. schreberi – Shreber's aster

Seriocarpus asteroides – toothed whitetop aster

S. Linifolius – narrowleaf whitetop aster

Symphyotrichum spp.



Asters, Seriocarpus

***Sericarpus asteroides* – toothed whitetop aster**

***S. linifolius* – narrowleaf whitetop aster**

Doellingeria umbellata – flat-topped aster

Eurybia divaricata – white wood aster

E. macrophylla – large-leaved aster

E. schreberi – Shreber's aster

Ionactis linariifolia – stiff aster

Symphotrichum spp.



Toothed Whitetop Aster



Toothed Whitetop Aster



Narrowleaf Whitetop Aster

Asters

Symphyotrichum spp.

Doellingeria umbellata – flat-topped aster

Eurybia divaricata – white wood aster

E. macrophylla – large-leaved aster

E. schreberi – Shreber's aster

Ionactis linariifolia – stiff aster

Seriocarpus asteroides – toothed whitetop aster

S. linifolius – narrowleaf whitetop aster

Asters

Symphyotrichum

<i>S. cordifolium</i>	Blue Wood Aster
<i>S. ericoides</i>	Snow Flurry' Heath Aster
<i>S. laeve</i>	Smooth Aster
<i>S. lateriflorum</i>	Calico Aster
<i>S. novae-angliae</i>	New England Aster
<i>S. oblongifolium</i>	Aromatic Aster, 'Raydon's Favorite,' 'October Skies'
<i>S. oolentangiense</i>	Sky Blue Aster
<i>S. praealtum</i>	Willow Aster, Veiny-lined Aster
<i>S. shortii</i>	Short's Aster

Asters - Symphyotrichum

Symphyotrichum novae-angliae – New England Aster

New England Aster (Pink)



New England Aster



Purple Dome Aster



Asters - Symphyotrichum

***Symphyotrichum leave* – smooth aster**

***S. Oolentangiense* – sky blue aster**

***S. Ericoides* ‘Snow Flurry’ heath aster**



Asters - Symphyotrichum

***S. Oblongifolium* – Aromatic Aster ‘Raydon’s Favorite’ and ‘October Skies’**

“Raydon’s Favorite” Aromatic Aster



“October Skies” Aromatic Aster



Asters - Symphyotrichum

***S. cordifolium* – Blue Wood Aster, Heart-leaved Aster**

***S. lateriflorum* – Calico Aster**



Asters - Symphyotrichum

***S. praealtum* – Willow Aster**

***S. shortii* – Short's Aster**



Photos by Randy Litchfield

Asteraceae Family

Asters

Doellingeria

Eurybia

Ionactis

Seriocarpus

Symphyotrichum

Goldenrods

Euthamia

Oligoneuron (?)

Solidago

Coneflowers

Echinacea

Dracopsis

Ratibida

Rudbeckia

Goldenrods

Goldenrods of Northeast Ohio

*A Field Guide to Identification
and Natural History*

Dr. James K. Bissell
Steven M. McKee
Judy Semroc

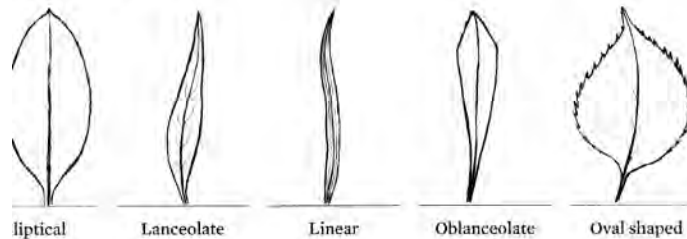
Cleveland Museum of
NATURAL HISTORY

How to Use This Guide

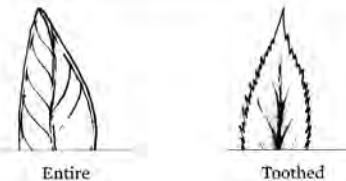
Examine your plant specimen carefully. Use the definitions provided in this guide to understand its physical characteristics. Use the dichotomous key that starts on page 18 to determine your goldenrod. Dichotomous keys walk you through distinguishing characters of the plant, leading you further through the key until the species is identified. You will start by choosing between the two statements labeled "1." Decide which statement better describes your plant and move to the next set of numbers below that choice. Each choice leads to either another set of choices or the identity of the goldenrod. Be sure to read all of the descriptions before proceeding to the next level. If your plant doesn't fit a description or match an illustration, try going through the key again and carefully looking at the different characteristics of your specimen.

Useful Definitions

Leaf shapes



Leaf margins



Flower types



Leaf attachment



Goldenrods

- ***Euthamia*** (also called goldentop)
- ***Oligoneuron*** (?)
- ***Solidago***

Goldenrods - Euthamia

Euthamia graminifolia – grass-leaved goldenrod

E. caroliniana

Oligoneuron (?) *ohioense* – Ohio Goldenrod

O. (?) *riddellii* – Riddell's goldenrod

O. (?) *Rigidum* – Stiff Goldenrod

Solidago bicolor – White Goldenrod

S. caesia – Bluestem Goldenrod

S. erecta – Erect or Slender Goldenrod

S. Flexicaulis = Zigzag goldenrod

S. juncea – Early Goldenrod

S. rugosa – Wrinkle Leaf Goldenrod

S. shortii – Short's goldenrod

S. speciosa – Showy Goldenrod

S. squarrosa – Stout Goldenrod



Photos by Randy Litchfield

Goldenrods - *Oligoneuron* (?)

***Oligoneuron*(?) *album* – White Goldenrod**

***O.*(?) *ohioense* – Ohio goldenrod**

***O.*(?) *riddellii* – Riddell's goldenrod**

***O.*(?) *Rigidum* – Stiff Goldenrod**

Euthamia graminifolia – grass-leaved goldenrod

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S. speciosa – Showy Goldenrod

S. squarrosa – Stout Goldenrod



Photos by Randy Litchfield

Goldenrods - Oligoneuron (?)

***Oligoneuron*(?) *album* – White Goldenrod**

***O.*(?) *ohioense* – Ohio goldenrod**

***O.*(?) *riddellii* – Riddell's goldenrod**

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S. speciosa – Showy Goldenrod

S. squarrosa – Stout Goldenrod



Goldenrods

Solidago

<i>Solidago bicolor</i>	White Goldenrod
<i>S. caesia</i>	Bluestem Goldenrod
<i>S. erecta</i>	Erect/Slender Goldenrod
<i>S. flexicaulis</i>	Zigzag Goldenrod
<i>S. juncea</i>	Early Goldenrod
<i>S. rugosa</i>	Wrinkle Leaf Goldenrod
<i>S. shortii</i>	Short's Goldenrod 'Solar Cascade'
<i>S. speciosa</i>	Showy Goldenrod
<i>S. squarrosa</i>	Stout Goldenrod
<i>S. album</i>	White Goldenrod
<i>S. ohioense</i>	Ohio Goldenrod
<i>S. riddellii</i>	Riddell's Goldenrod
<i>S. rigidum</i>	Stiff Goldenrod

Goldenrods - Solidago

Erect Goldenrod



Short's Goldenrod



Stout Goldenrod



Showy Goldenrod



Goldenrods - Solidago



Asteraceae Family

Asters

Doellingeria

Eurybia

Ionactis

Seriocarpus

Symphyotrichum

Goldenrods

Euthamia

Oligoneuron (?)

Solidago

Coneflowers

Echinacea

Dracopsis

Ratibida

Rudbeckia

Coneflowers

Echinacea

<i>Echinacea pallida</i>	Pale Purple Coneflower
<i>E. paradoxa</i>	Bush's Coneflower
<i>E. purpurea</i>	Purple Coneflower
<i>E. tenneeseensis</i>	Tennessee Purple Coneflower

**Dracopsis spp.*

Ratibida spp.

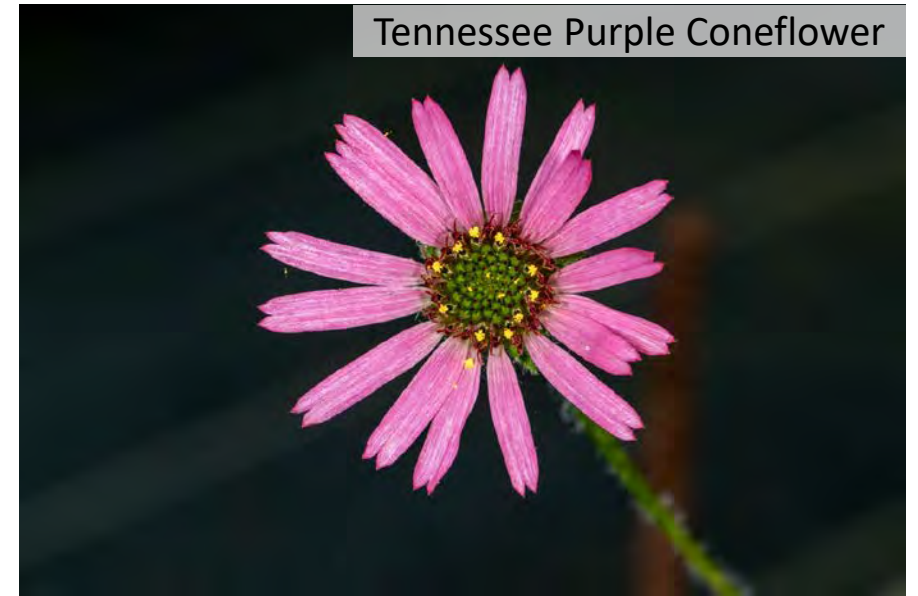
Rudbeckia spp.

Coneflowers - Echinacea



Purple Coneflower

Bush's Coneflower



Tennessee Purple Coneflower



Purple Coneflower (white form, opening)

Coneflowers - Dracopsis

Echinacea

Dracopsis amplexicaulis

Ratibida spp.

Rudbeckia spp.

Clasping Coneflower



Dracopsis amplexicaulis (Courtesy Robert W. Smith,
Lady Bird Johnson Wildflower Center)

Coneflowers - Ratibida

Echinacea

Dracopsis

Ratibida spp.

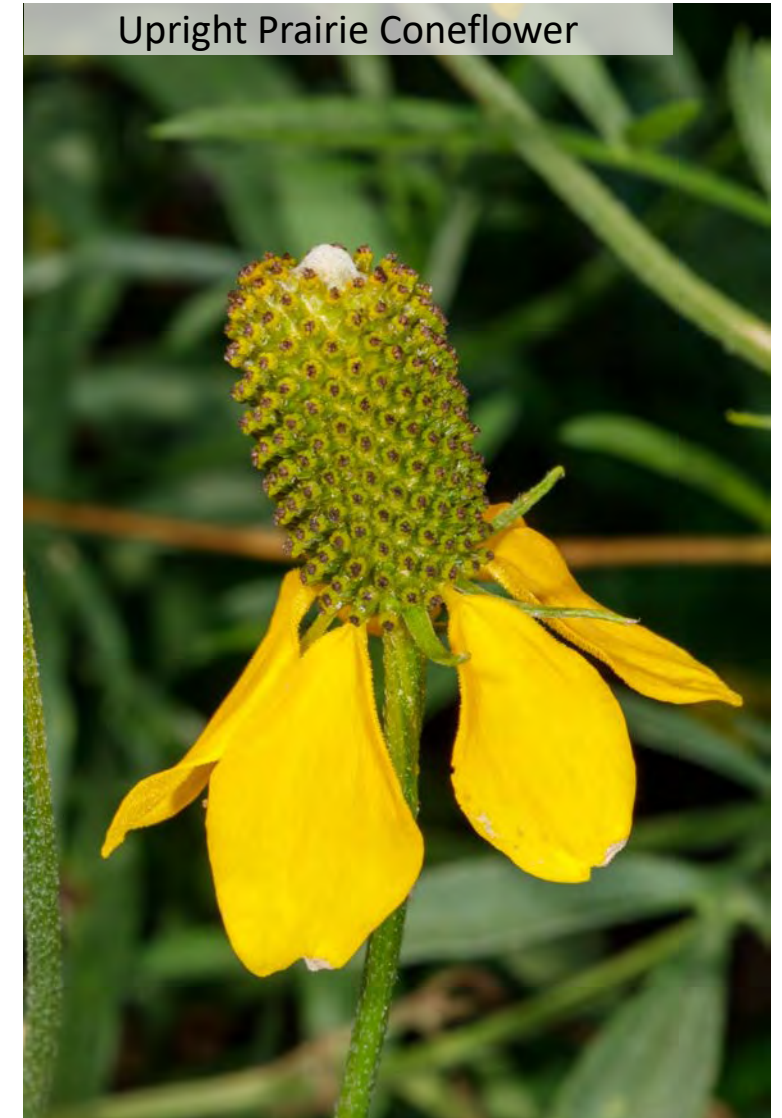
<i>Ratibida columnifera</i>	Upright Prairie Coneflower or Mexican Hat
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<i>R. pinnata</i>	Gray-headed Coneflower
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Rudbeckia

Coneflowers - Ratibida

<i>Ratibida columnifera</i>	Mexican Hat, Upright Prairie coneflower
<i>R. pinnata</i>	Gray-headed Coneflower



Photos by Randy Litchfield

Coneflowers

Echinacea

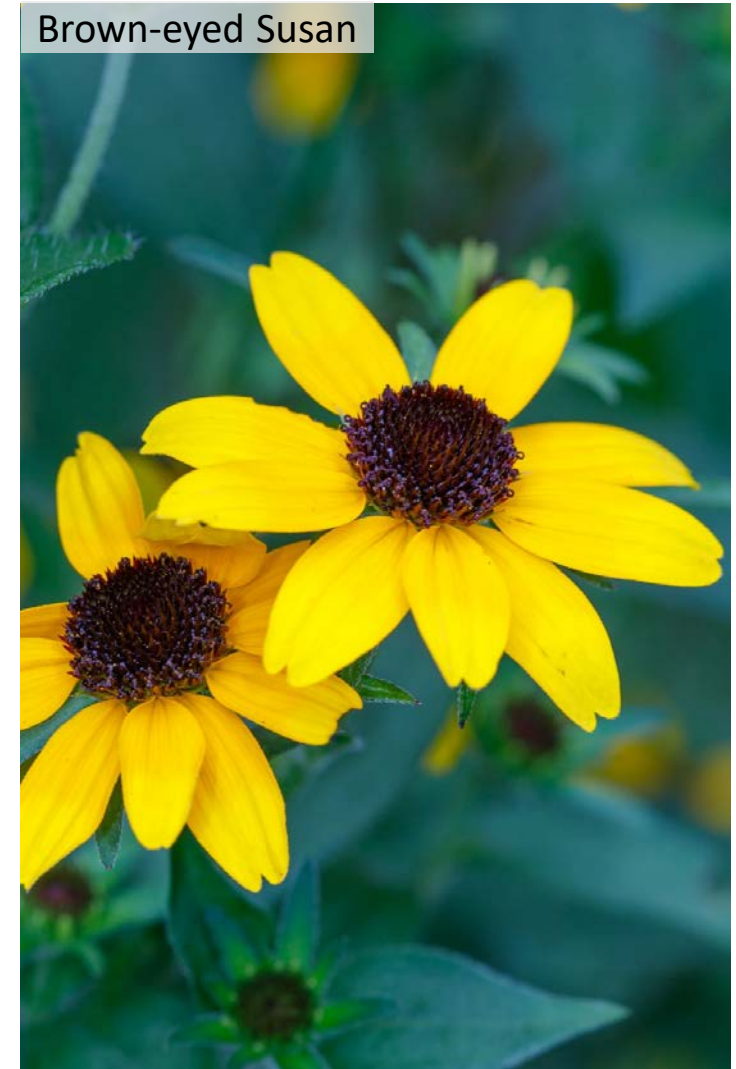
Dracopsis

Ratibida

Rudbeckia

<i>Rudbeckia fulgida</i>	Orange Coneflower
<i>R. hirta</i>	Black-eyed Susan
<i>R. laciniata</i>	Green-headed Coneflower
<i>R. subtomentosa</i>	Sweet Black-eyed Susan, 'Henry Eilers'
<i>R. triloba</i>	Brown-eyed Susan

Coneflowers - Rudbeckia



Coneflowers - Rudbeckia

Green-headed Coneflower



Sweet Coneflower 'Henry Eilers'



Photos by Randy Litchfield

Ecological Services

Goldenrod and asters are much like milkweed in that they create a community; beyond the bees and butterflies you'll find syrphid flies, beetles and many other insects. Goldfinches, tree sparrows, prairie chickens and wild turkeys eat the seeds, while rabbits and deer will browse the foliage.

Rhonda Fleming Haye, "Goldenrod and Asters,"
<https://northerngardener.org/goldenrod-and-asters>

Locust Borer Beetle on Stiff Goldenrod



Ecological Services

Coneflowers, asters, and goldenrods provide:

- Nectar and pollen
- Host plants for lepidoptera
- Opportunities for foraging
- Habitat

Brown-hooded Owlet on Ziz-zag Goldenrod



Dingy Cutworm Moth on Riddell's Goldenrod



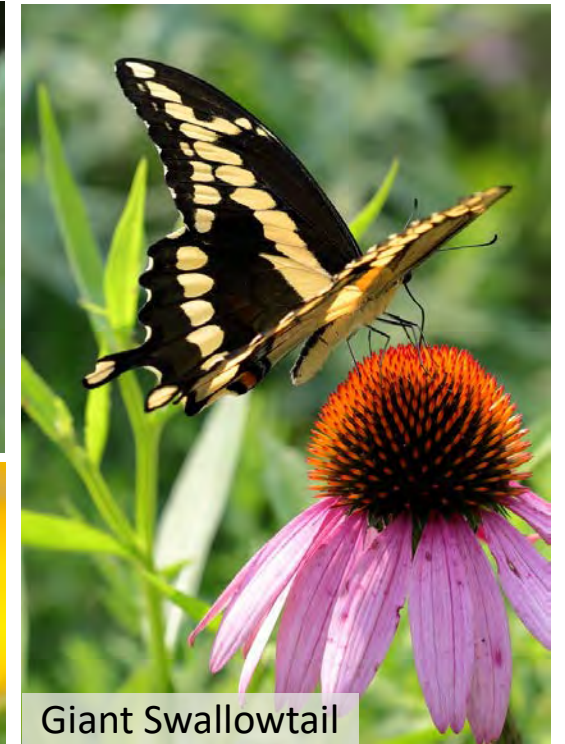
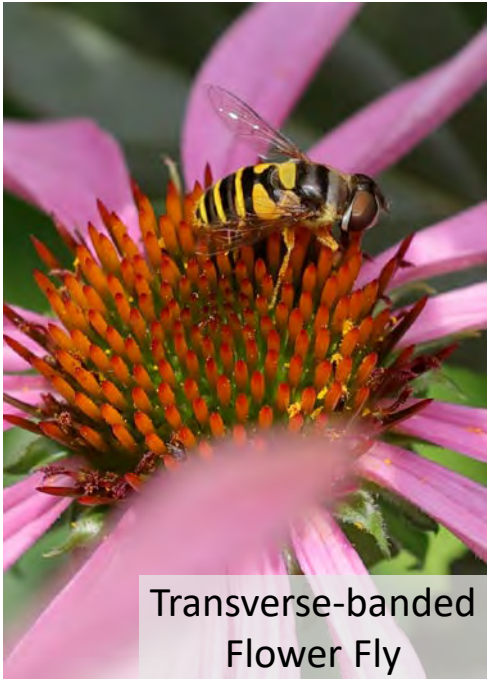
White-banded Crab Spider on Riddell's Goldenrod



Ecological Services — Pollen And Nectar

Aster and goldenrod blooms last late into the season when many other flowers are done

- Wasps are shifting to nectar more than insect prey
- Resources are needed for overwintering
- Fuel for end of season migrations (e.g. monarchs)



Photos by Randy Litchfield

Ecological Services — Pollen Specialist Bees



Keystone Native Plants Eastern Temperate Forests – Ecoregion 8



Top 30 Native Host Plants for Pollen Specialist Bees

Genus	Common Plant Name	# of Pollen Specialist Bee Species Relying on this Plant
<i>Helianthus</i>	sunflower	50
<i>Solidago</i>	goldenrod	42
<i>Symphytotrichum</i>	aster	33
<i>Grindelia</i>	gumweed	31
<i>Rudbeckia</i>	black eyed susan	29
<i>Heterotheca</i>	goldenaster	24
<i>Coreopsis</i>	tickseed	22
<i>Chrysopsis</i>	goldenaster	20
<i>Verbesina</i>	wingstem	17
<i>Bidens</i>	beggartick	15
<i>Cirsium</i>	thistle	15
<i>Salix</i>	willow	14
<i>Vaccinium</i>	blueberry, cranberry, deerberry	14
<i>Erigeron</i>	fleabane	12
<i>Vernonia</i>	ironweed	12
<i>Pityopsis</i>	silkgrass	11
<i>Ratibida</i>	prairie coneflower	11
<i>Silphium</i>	rosinweed	10
<i>Baccharis</i>	baccharis	8
<i>Euthamia</i>	goldentop	8
<i>Dalea</i>	prairie clover	7
<i>Oenothera</i>	evening primrose	7
<i>Echinacea</i>	coneflower	6

Ecological Services — Pollen Specialist Bees

Ohio specialist bees:

Coneflower (Genus Rudbeckia)

One: *Andrena rudbeckiae*

Asters (Genus Symphyotrichum)

Three: *Anthophorula asteris*, *Andrena asteroides*, *Colletes simulans*

Goldenrods (Genus Solidago and Genus Euthamia)

Three: *Colletes solidaginis*, *Colletes simulans*, *Andrena braccata*

Specialists visiting **both** asters (Genus Symphyotrichum) **and** goldenrods (Genus Solidago and Genus Euthamia)

Four: *Andrena simplex*, *Andrena hirticincta*, *Andrena nubecula*, *Andrena asteris*, *Dianthidium simile*



Ecological Services — Host Plants for Lepidoptera



Keystone Native Plants

Eastern Temperate Forests – Ecoregion 8

Coneflower (Genus Rudbeckia)

- 20 caterpillar species
- Example: Silvery Checkerspot (*Chlosyne nycteis*)

Asters (Genus Symphyotrichum)

- 100 caterpillar species
- Example: Pearl Crescent (*Phyciodes tharos*)

Goldenrods (Genus Solidago)

- 104 caterpillar species



iNaturalist, https://www.inaturalist.org/guide_taxa/418823



Ecological Services — Foraging

Busy blooms draw predatory insects and birds in for foraging



Ecological Services — Habitat

Stalks of asters and goldenrods generally have strength to remain standing through winter

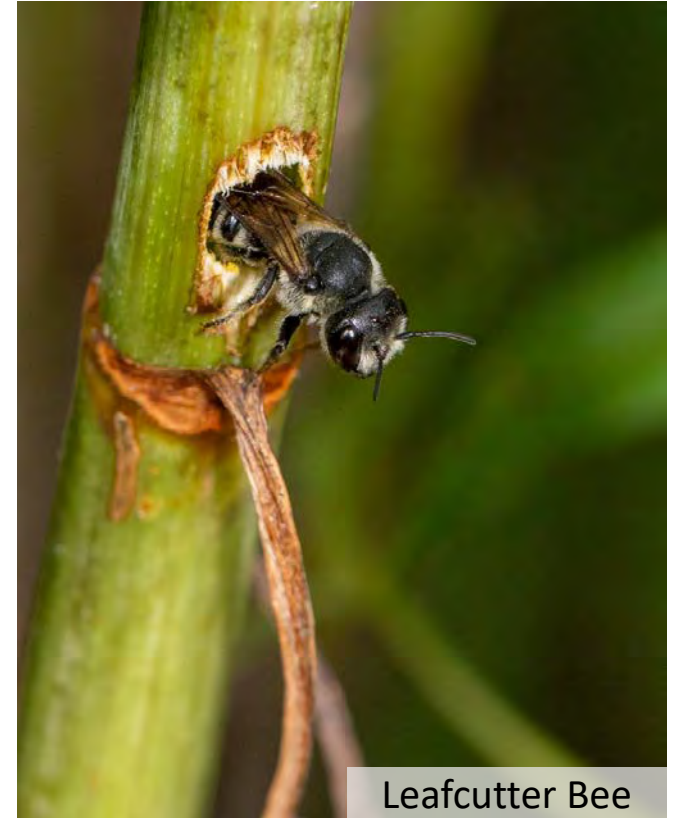
- Shelter for mammals
- Shelter for insects overwintering in various stages of development

Nesting locations

- Laying eggs
- Stems are nesting sites for bees that lay eggs in cavities



Hammertail Robber Fly



Leafcutter Bee

Gardening with Coneflowers, Asters, and Goldenrods

If a fountain could jet bouquets of chrome yellow in dazzling arches of chrysanthemum fireworks, that would be Canada Goldenrod. Each three-foot stem is a geyser of tiny gold daisies, ladylike in miniature, exuberant en masse. Where the soil is damp enough, they stand side by side with their perfect counterpart, New England Asters. Not the pale domesticates of the perennial border, the weak sauce of lavender or sky blue, but full-on royal purple that would make a violet shrink. The daisylike fringe of purple petals surrounds a disc as bright as the sun at high noon, a golden-orange pool, just a tantalizing shade darker than the surrounding goldenrod. Alone, each is a botanical superlative. Together, the visual effect is stunning. Purple and gold, the heraldic colors of the king and queen of the meadow, a regal procession in complementary colors.

Robin Wall Kimmerer

Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants

Gardening with Coneflowers, Asters, and Goldenrods

Garden Design

Right plant in the right place... but do you *really* know the conditions of your place?

Bloom timing

- Coneflowers provide mostly summer color
- Asters and goldenrods late season color

Bloom colors and combinations



Photos by Randy Litchfield

Gardening with Coneflowers, Asters, and Goldenrods

Garden Design

With asters and goldenrods consider combinations with other later bloomers such as Ironweed, Joe Pye Weed, and Late Boneset plus grasses like Indian Grass...

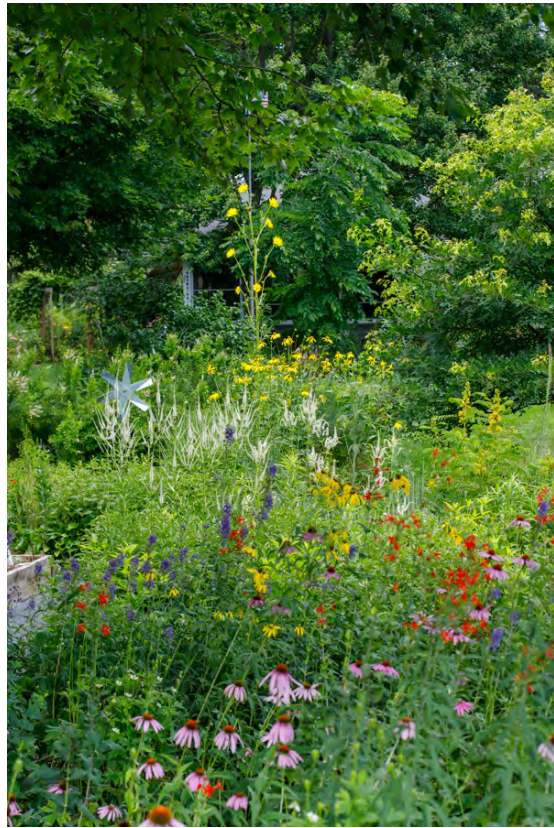


Photos by Randy Litchfield

Gardening with Coneflowers, Asters, and Goldenrods

Garden Design

Plant height, foliage, and structure



Photos by Randy Litchfield

Gardening with Coneflowers, Asters, and Goldenrods

Riddell's Goldenrod... a favorite because of foliage, structure, bloom, and fall interest



Gardening with Coneflowers, Asters, and Goldenrods

Full sun not needed

- Purple Coneflower
- Blue Wood and Calico Asters
- Zig Zag and Bluestem Goldenrods

Blue Wood Aster



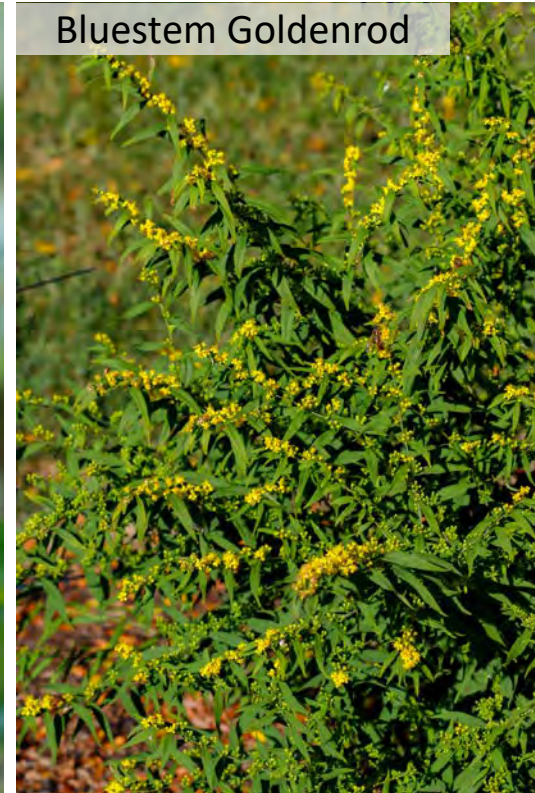
Calico Aster



Zig Zag Goldenrod



Bluestem Goldenrod



Photos by Randy Litchfield

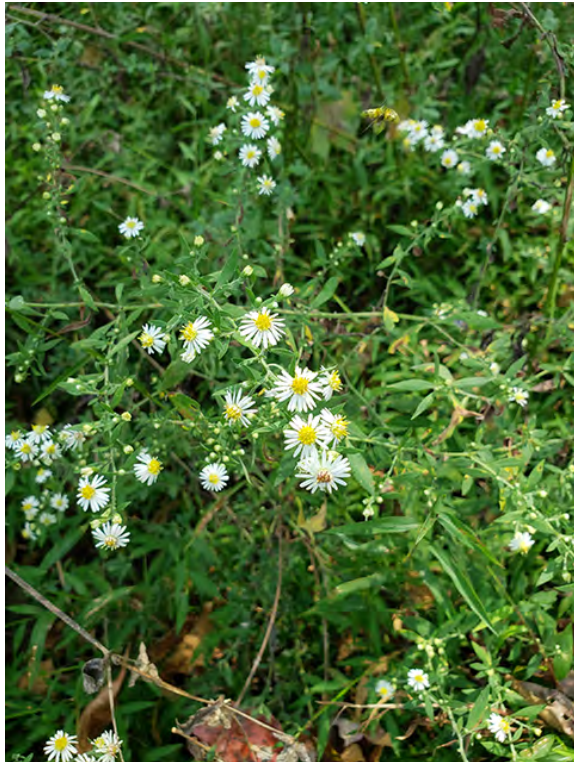
Gardening with Coneflowers, Asters, and Goldenrods

Some species of asters and goldenrods are particularly aggressive (not “invasive”) and can take over an area

Very similar...
look for galls on Tall Goldenrod



White Heath Aster
Symphyotrichum ericoides



White Oldfield Aster
Symphyotrichum pilosum



Canada Goldenrod
Solidago canadensis



Tall Goldenrod
Solidago altissima

Gardening with Coneflowers, Asters, and Goldenrods

Asters can tend to flop (particularly New England) and drape into mounds (aromatic asters)

- “Chelsea chop” in late May to June
- Remove about 1/3
- Makes plant more bushy, less likely to flop, and delays bloom
- Consider the impact of bloom time on when insects and birds are needing resources



Fall clean-up?

- Leave for spring (overwintering, food source, cut stems for next year's bee nesting)
- If plants are too aggressive then deadhead

Gardening with Coneflowers, Asters, and Goldenrods

Pests and Diseases

Sunflower Head-Clipping Weevil

Dangling flower heads

- Female chews a ring of holes around stem causing the flower to dangle
- After mating the female lays eggs in the stem of dangling bloom
- Flowerhead falls to the ground where larvae completes its lifecycle

Primarily see on Purple Coneflowers, Rosinweed, Cup Plant, Prairie Dock, and Compass Plant

Starting to see on Black-Eyed Susan, Orange Coneflower, Green-headed Coneflower, and False Sunflower

Have not seen this on asters nor goldenrods

Manage by cutting and removing flowerheads before they fall to ground



Photos by Randy Litchfield

Gardening with Coneflowers, Asters, and Goldenrods

Pests and Diseases

Coneflower Rosette Mites

Mites feed at base of flowers
Punctures are sites of odd sprouts
Manage by cutting and destroying flowerheads

Aster Yellows

Phytoplasma disease

Manage by removing and destroying all parts of the plant including the root system



“Coneflower Conundrums: Spiky Hairdos, Freaky Flowers, and Dangling Heads,” Joe Boggs,
<https://bygl.osu.edu/index.php/node/2191>

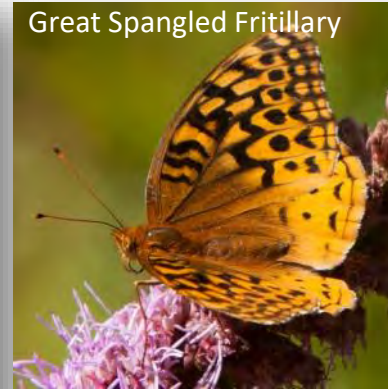
Native plants support...Lepidoptera



Painted Lady



Tiger Swallowtail



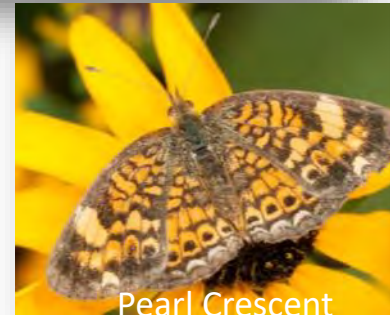
Great Spangled Fritillary



Summer Azure



Virginia Ctenucha Moth



Pearl Crescent



Snowberry Clearwing Moth



Question Mark



Wild Indigo Dusky Wing



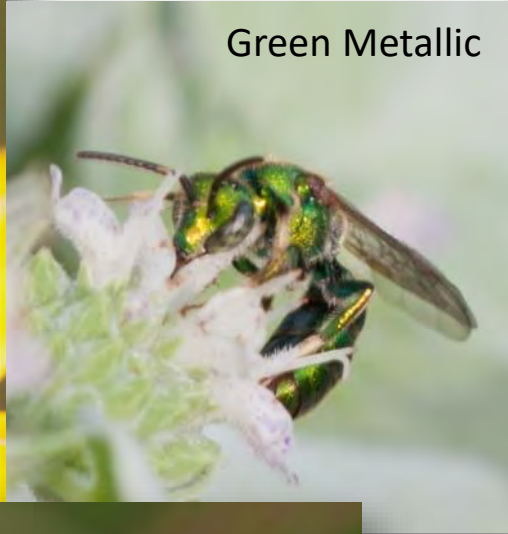
Zabulon Skipper

Photos by Randy Litchfield

Native plants support... Bees



Carpenter



Green Metallic



Bumble



Leaf Cutter



Long Horned



Cuckoo Bee



Sweat Bee



Honey Bee

Native plants support... Wasps



Stink-Bug Hunter



Grass Carrying



Four-Toothed Mason



Sand Wasp



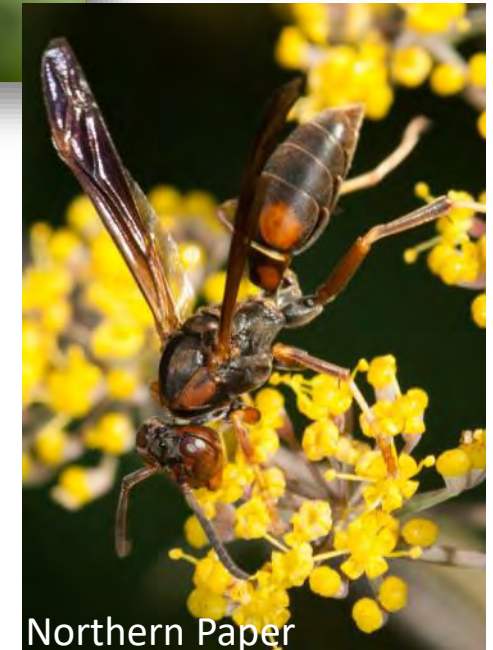
Thread-Waisted



Euodynerus Hidalgo

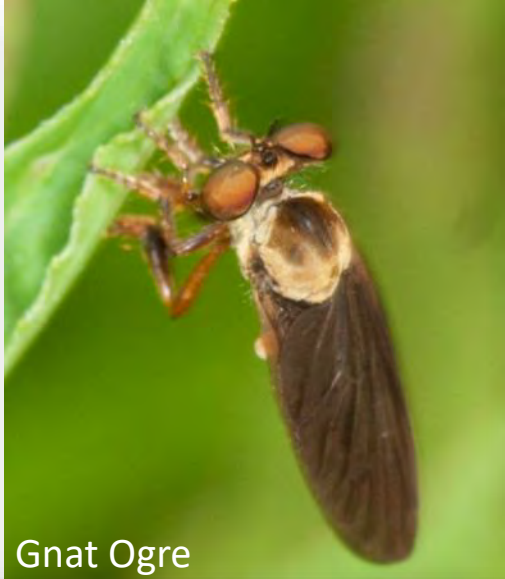


Golden Digger



Northern Paper

Native plants support... Flies



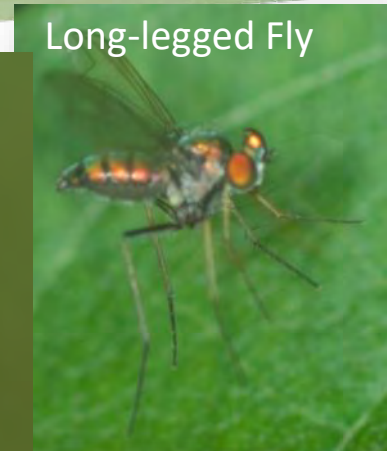
Gnat Ogre



Transverse-banded Flower Fly



Greater Bee Fly



Long-legged Fly



Robber Fly



Common Eastern Physocephala



Oblique Streaktail Fly

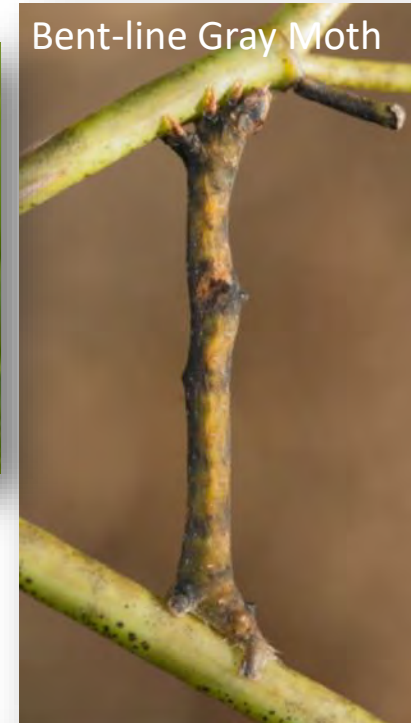
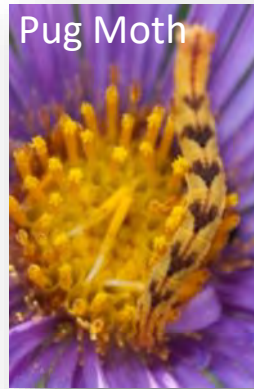


Maize Calligrapher



Scorpion Fly

Native plants support... Caterpillars



Photos by Randy Litchfield

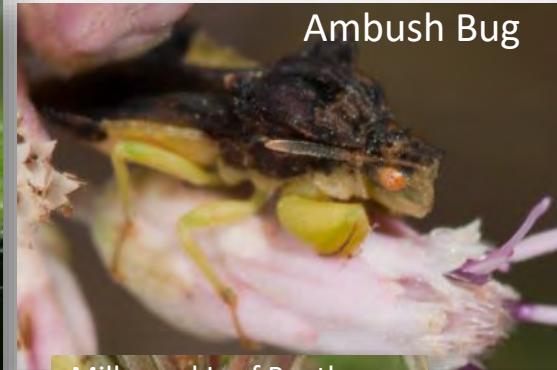
Native plants support... Insect Life



Azure Bluet Damselfly



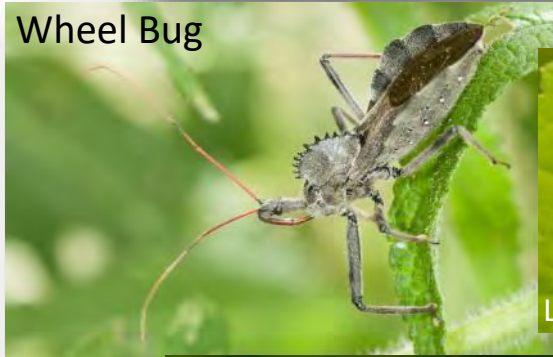
Red Banded Leafhopper



Ambush Bug



Fork-tailed Bush Katydid



Wheel Bug



Lesser Meadow Katydid



Leafhopper *Rhyncomitra microrhina*



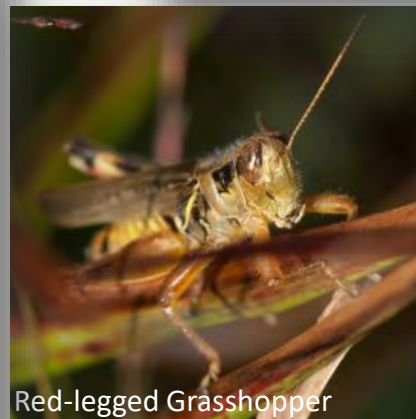
Milkweed Leaf Beetle



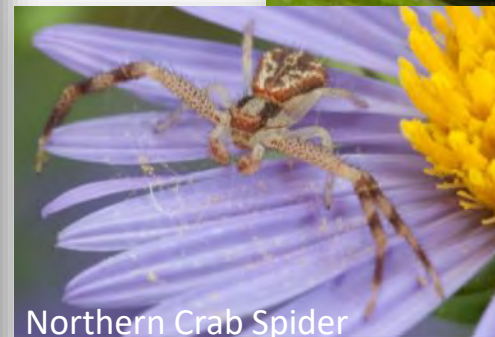
Common Whitetail Dragonfly



Praying Mantis



Red-legged Grasshopper



Northern Crab Spider

Photos by Randy Litchfield

Thank you for the opportunity to be with you!

Catchfly Commons

Gathering Flora, Fauna and Friends



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Randy Litchfield
catchflycommons@gmail.com

Contact us if you would like to schedule a visit!



www.catchflycommons.org

Website offers:

- A blog about plants, pollinators, other insects, and gardening in native landscapes
- Descriptions of how our landscape was created and evolved, plant list, and observations list
- Photo galleries of plants, pollinators, other insects, and the landscape
- A resource page