

## COMPOSITES IN THE PRAIRIES

There probably isn't a tallgrass prairie found in Ohio where the greatest numbers of prairie species are not members of the Composite Family (*Asteraceae* or *Compositae*). The Composite Family, also called the Aster, Daisy, or Sunflower Family, is not only the most advanced and the most complex family on Earth, but is also the most recent plant family to appear on Earth. The Composite Family has the greatest number of plant species of all of the plant families in North America.

The flowers' bright colors of yellow, orange, red, purple, blue, and various shades in-between attract many species of bees and butterflies. These insects seek out the flowers' sweet nectar and carry pollen to other flowers to facilitate cross-pollination to insure genetic diversity.

These bright colors also attract human visitors to our prairies. Because of these attractive colors, many people raise Composites in their own flowerbeds at home.

Composite species in the prairies vary greatly in both size and shape. Their heights can vary from less than 1 foot to over 10 feet. Their leaves can be simple or compound and can be alternately, oppositely, or whorledly arranged upon the stem. Some species even have basal rosettes of leaves. What really make the Composite Family unique are its flowers.

The Composite Family is the only family that has 2 different types of flowers borne upon the same flower head: The disk flowers and the ray flowers. The smaller disk flowers are located at the center of the head and are radially symmetrical. The larger ray flowers encircle the outer edge of head and are bilaterally symmetrical. These ray flowers are often mistaken for the flowers' petals. However, not all species within the Composite Family will have both the disk and the ray flowers.

There are 2 subfamilies within the Composite Family. However, only 1 on them, the Aster Subfamily (*Asteroideae*), has prairie species. Within this subfamily are numerous tribes.

The Sunflower Tribe (*Heliantheae*) has the largest number of prairie genera of any of the prairie tribes. Some of their genera are:

Genus *Coreopsis*: Tall Coreopsis (*C. tripteris*).

Genus *Echinacea*: Purple Coneflower (*E. purpurea*).

Genus *Helianthus*: Giant or Tall Sunflower (*H. giganteus*), Saw-toothed Sunflower (*H. grosseserratus*), Showy Sunflower (*H. laetiflorus*), and Pale-leaved Wood Sunflower (*H. strumosus*).

Genus *Heliopsis*: False Sunflower (*H. helianthoides*).

Genus *Ratibida*: Prairie Coneflower (*R. pinnata*).

Genus *Rudbeckia*: Black-eyed Susan (*R. hirta*) and Brown-eyed Susan (*R. triloba*).

Genus *Silphium*: Whorled Rosinweed (*S. trifoliatum*), Prairie Dock (*S. terebinthinaceum*), and Pinnatifid Prairie Dock (*S. terebinthinaceum* var. *pinnatifid*).

Genus *Verbesina*: Yellow Crown Beard (*V. helianthoides*).

The Sneezeweed Tribe (*Helenieae*) has only 1 genus of prairie plants in central Ohio:

Genus *Helenium*: Sneezeweed (*H. autumnale*) and Purple-headed Sneezeweed (*H. nudiflorum*).

The Aster Tribe (*Astereae*) has 2 genera of prairie plants in central Ohio:

Genus *Aster*: Smooth Aster (*A. laevis*) and New England Aster (*A. novae-angliae*).

Genus *Solidago*: Stiff Goldenrod (*S. rigida*).

Boneset or Thoroughwort Tribe (*Eupatorieae*) also has 2 genera of prairie plants in central Ohio.

Genus *Eupatorium*: Tall Boneset (*E. altissimum*).

Genus *Liatris*: Rough Blazing Star (*L. aspera*), Northern or Eastern Blazing Star (*L. scariosa*),

and Scaly or Square-rose Blazing Star (*L. squarrosa*).

Most tallgrass prairies have other Composite species that are not considered to be true prairie plant. Some of them such as Ragweed (*Ambrosia* sp.), Goldenrod (*Solidago* sp.), and Ironweed (*Vernonia* sp.), are native to central Ohio. Other species, such as Chicory (*Chichorium intybus*), Yellow Goatsbeard (*Tragopogon pratensis*), Common White Daisy (*Chrysanthemum leucanthemum*), Milfoil or Yarrow (*Achillea millefolium*) Common Burdock (*Arctium minus*), Great Burdock (*Arctium lappa*), Bull Thistle (*Cirsium vulgare*) and Canada Thistle (*Cirsium arvense*), are non-native and often invasive species.

When visiting the tallgrass prairies in our parks, take time to observe the Composites. Admire their colors and their beauty.