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Butterfly Gardening

This NebGuide outlines planting schemes and arrangements that will help attract butterflies to a garden area.

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Butterflies can be found in almost any part of Nebraska, from the Pine Ridge's coniferous forests and across the grasslands of the Sandhills to the deciduous forests along the Missouri River. Watching butterflies, much like bird watching or observing wildflowers has become a popular and enjoyable pastime. Since many natural butterfly habitats have been lost to urbanization and other development, some environmental organizations have incorporated butterfly conservation into their programs. Many people are taking a personal interest in attracting these fascinating insects to their gardens. By choosing the right plants, you can attract many different butterflies, adding a moveable mural of color to your landscape.

Butterflies and moths belong to the insect order Lepidoptera. They are well-known for their beauty, may act as pollinators for some plants, and are a food source for certain animals. The presence or absence of butterflies is an indicator of the health of our environment.

Butterfly Anatomy and Life Cycle

Butterflies go through a four-stage developmental process known as metamorphosis (egg, larva or caterpillar, pupa or chrysalis, and adult). Understanding a butterfly's life cycle can make butterfly watching more enjoyable, and the knowledge is an important asset to people who want to understand the principles of attracting butterflies to their gardens.

Depending on the species, the life cycle of a butterfly (one generation) may take anywhere from about one month to an entire year. Nebraska butterflies may have one, two, or more generations (broods) per year. Usually, the most common butterflies are multiple-brooded and provide a continuous array of color and activity to your butterfly garden throughout the season.

Commonly Attracted Butterflies in Nebraska

In Nebraska, some of the most readily-attracted butterflies include:

- Alfalfa Butterfly - *Colias eurytheme* Boisduval
- American Painted Lady - *Vanessa virginiensis* (Drury)
- Cabbage Butterfly - *Pieris rapae* (L.)
- Checkered Skipper - *Pyrgus communis* Grote
- Clouded Sulphur - *Colias philodice* Godart
- Eastern Black Swallowtail - *Papilio polyxenes asterius* Stoll
- Eastern Tailed Blue - *Everes comyntas* Godart
- Gorgone Checkerspot - *Chlosyne gorgone carlota* (Reakirt)
- Gray Hairstreak - *Stryman melinus* Hübner
- Great Spangled Fritillary - *Speyeria cybele* (Fabricius)
- Monarch - *Danaus plexippus* (L.)
- Painted Lady - *Vanessa cardui* (L.)
- Pearl Crescent - *Phyciodes tharos* (Drury)
- Red Admiral - *Vanessa atalanta* (L.)
- Sachem - *Atolopedes campestris* Boisduval
- Spring Azure - *Celastrina ladon* (Cramer)
- Tawny-edged Skipper - *Polites themistocles* (Latreille)
- Tiger Swallowtail - *Papilio glaucus* (L.)
- Variegated Fritillary - *Euptoieta claudia* (Cramer)

Attracting Butterflies

Although plant selection and placement are the most effective methods to attract butterflies, site selection for a butterfly garden is also important. Butterflies like sunny sites and areas sheltered from high winds. Warm, sheltered sites are most needed in the spring and fall. Provide rocks or bricks for pupation sites and for basking and warming in the sun.

Butterflies require food plants for their larval stages and nectar plants for the adult stage. Some larvae feed on specific host plants, while others will feed on a variety of plants. If possible, include both larval host plants and adult nectar plants in your butterfly garden.

Types of Plants to Attract Butterflies

Plants that attract butterflies are usually classified as those that are a food source, a nectar source, or both. Some of these plants will also provide protection from predators, offer shelter, a place to lay eggs, and a place to attach chrysalides. It can be relatively simple to attract butterflies and still have a garden that suits your tastes and needs. Nectar flowers and other favorite butterfly plants come in many forms--annuals, perennials, herbs, vines, grasses, shrubs, and trees. The plants can be native or non-native.

If you just want to attract a few more butterflies than you have seen in past years, simply plant more of the nectar flowers commonly visited by adults. If you want to attract many different species and you live in an urban or suburban area where there are few pasture or woodlands, you will need to add plants that are a good source of food for butterfly larvae (caterpillars) as well. Include an assortment of plants for season-long bloom. The time of flowering, duration of bloom, flower color, and plant size are all important considerations when selecting plants to attract butterflies.

Many plants which attract butterflies, especially trees and shrubs, may already be present in a specific area.

Although weeds and some native plants are generally not welcome in a garden, allowing them to grow under supervision may be an option, as these plants help attract butterflies. Try to avoid plants like blue flax and grayhead prairie coneflower that readily reseed and may take over and dominate garden sites.

Plants with clusters of flowers are often better than plants with small, single flowers because it is easier for butterflies to land on clustered and/or larger flowers. Planting in mass (several plants of the same kind) will usually attract more butterflies, as there is more nectar available to them at a single stop. Select plants adapted to your site and location, and develop a plan for the butterfly garden. Several books are available with butterfly garden plans. (For a sample plan, order the hard copy of this NebGuide. Check with your local Extension office.)

It is difficult to have a successful butterfly garden in locations where insecticides are used. Pesticides, specifically insecticides, can kill butterflies as well as a host of other useful insects. Even biological controls, such as BT (*Bacillus thuringiensis*) will kill butterfly larvae. When treating for insect pests, always consider non-chemical methods of pest control before turning to pesticides.

Plants that attract butterflies may also attract bees and wasps. Most bees and wasps, busy with their pollen and nectar collecting tasks, are not likely to sting if left undisturbed. However, if you are allergic to bee and wasp stings, be careful! Butterfly gardens may also attract other forms of wildlife, both wanted and unwanted species.

List of Plants to Attract Butterflies

{L} = Larval Food Plants
{N} = Nectar Plants
(Refer to references [additional information] for flowering periods.)

Annuals

Annuals grow, flower, and complete their life cycle in one season. There is a wide range of flower types, colors, growth habits, and heights to choose from. Removal of old flowers (deadheading) of annuals may be necessary to encourage continued blooming.

Common annual flowers that attract butterflies include:

- Ageratum - *Ageratum houstonianum* {N}
- Broccoli - *Brassica* spp. {L}
- Cabbage - *Brassica* spp. {L}
- Common Sunflower - *Helianthus annuus* {L,N}
- Cosmos - *Cosmos* spp. {N}
- Fetid Marigold - *Dyssodia papposa* {L}
- Globe Candytuft - *Iberis umbellata* {N}
- Gomphrena - *Gomphrena globosa* {N}
- Heliotrope - *Heliotropium arborescens* {N}
- Lamb's Quarters - *Chenopodium album* {L}
- Lantana - *Lantana camara* {N}
- Marigold - *Tagetes* spp. {N}
- Nasturtium - *Tropaeolum* spp. {N}
- Nicotiana - *Nicotiana alata* {N}
- Petunia - *Petunia x hybrida* {N}
- Salvia - *Salvia* spp. {N}

- Scabiosa - *Scabiosa atropurpurea* {N}
- Snapdragon - *Antirrhinum majus* {L,N}
- Statice - *Limonium sinuatum* {N}
- Sunflower - *Helianthus* spp. {N}
- Sweet Alyssum - *Lobularia maritima* {N}
- Verbena - *Verbena* spp. {N}
- Zinnia - *Zinnia* spp. {N}

Biennials

Biennials form a rosette plant the first year, flower the second year, and then die. Biennials to consider for use in butterfly gardens include:

- Dame's Rocket - *Hesperis matronalis* {N}
- Queen Anne's Lace - *Daucus carota* {L,N}
- Thistle - *Cirsium* spp. {L,N}

Herbs

Herbs are used for flavoring food. Butterflies are also attracted to them as a nectar source as well as a larval food source.

- Catnip - *Nepeta cataria* {N}
- Chives - *Allium schoenoprasum* {N}
- Dill - *Anethum graveolens* {L,N}
- Lavender - *Lavender angustifolia*a {N}
- Mint - *Mentha* spp. {N}
- Parsley - *Petroselinum crispum* {L,N}
- Sweet Fennel - *Foeniculum vulgare* {L,N}

Shrubs

Most shrubs have a limited flower duration. However, they can provide good, short-term nectar sources, as well as butterfly habitats.

- Butterfly Bush - *Buddleia davidii* {N}
- Cinquefoil - *Potentilla* spp. {N}
- Chokecherry - *Prunus virginiana* {L,N}
- Cotoneaster - *Cotoneaster* spp. {N}
- Lilac - *Syringa* spp. {N}
- Mock Orange - *Philadelphus* spp. {N}
- Privet - *Ligustrum* spp. {N}
- Spirea - *Spiraea* spp. {N}
- Viburnum - *Viburnum* spp. {N}
- Wild Plum - *Prunus americana* {L,N}

Trees

Trees can serve a vital function as a larval food host, a nectar source, or protection.

- Birch - *Betula* spp. {L,N}
- Cherry - *Prunus* spp. {L,N}
- Cottonwood - *Populus deltoides* {L,N}

- Elm - *Ulmus* spp. {L,N}
- Hackberry - *Celtis occidentalis* {L,N}
- Hawthorn - *Crataegus* spp. {N}
- Linden (Basswood) - *Tilia* spp. {N}
- Oak - *Quercus* spp. {L}
- Plum - *Prunus* spp. {N}
- Red Cedar - *Juniperus virginiana* {L}
- Russian Olive - *Elaeagnus angustifolia* {N}
- Willow - *Salix* spp. {L,N}

Herbaceous Perennials

Perennial herbaceous plants are nonwoody plants that live and flower for more than 2 years. Some plants, like alfalfa and clover, may not be suitable for a small flower garden, but they may be found or encouraged to grow in surrounding areas.

Herbaceous perennials to consider include:

- Alfalfa - *Medicago sativa* {L,N}
- Aster - *Aster* spp. {L,N}
- BeeBalm - *Monarda* spp. {N}
- Blanketflower - *Gaillardia* spp. {N}
- Butterfly Weed - *Asclepias tuberosa* {L,N}
- Chrysanthemum - *Chrysanthemum* spp. (open-centered types) {N}
- Clover - *Melilotus* spp., *Trifolium* spp. {L,N}
- Coreopsis - *Coreopsis* spp. {N}
- Daylily - *Hemerocallis* spp. {N}
- Dogbane - *Apocynum* spp. {N}
- Gayfeather - *Liatris* spp. {N}
- Goldenrod - *Solidago rigida* {N}
- Hollyhock - *Alcea rosea* {L}
- Ironweed - *Vernonia* spp. {N}
- Joe-Pye Weed - *Eupatorium* spp. {N}
- Mallow - *Malva* spp. {L}
- Milk-vetch - *Astragalus* spp. {L,N}
- Milkweed - *Asclepias* spp. {L,N}
- Ornamental Onion - *Allium* spp. {N}
- Partridge Pea - *Cassia fasciculata* {L,N}
- Phlox - *Phlox* spp. {N}
- Pinks - *Dianthus* spp. {N}
- Prairie Clover - *Dalea* spp. {L,N}
- Purple Coneflower - *Echinacea* spp. {N}
- Pussy-toes - *Antennaria* spp. {N}
- Rudbeckia - *Rudbeckia* spp. {N}
- Sedum - *Sedum* spp. {N}
- Shasta Daisy - *Chrysanthemum maximum* {N}
- Yarrow - *Achillea* spp. {N}

Grasses

Grasses can be annuals or perennials. Height can vary from a few inches to several feet. They can be native or introduced and can be larval food and/or nectar plants.

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