

SPECIAL FEATURE GARDENS



Besides adding beauty to the landscape, gardens that are creatively designed and well-tended can increase the value of property. Some gardens provide food for the table and others furnish cut flowers for indoor enjoyment. On larger properties these special feature gardens break up the monotony of lawn and reduce mowing time. Blending your garden into the surrounding landscape will also help to minimize habitat fragmentation effects.

If you do not own property, you can still enjoy a small-scale garden by arranging planters and potted flowers on the balcony or deck of your apartment, townhouse, or condominium. Specialty gardens attract certain kinds of wildlife, which serve to enhance viewing pleasure. Butterfly, hummingbird, and native prairie gardens are well suited to this purpose. This chapter will offer suggestions on how to create them.

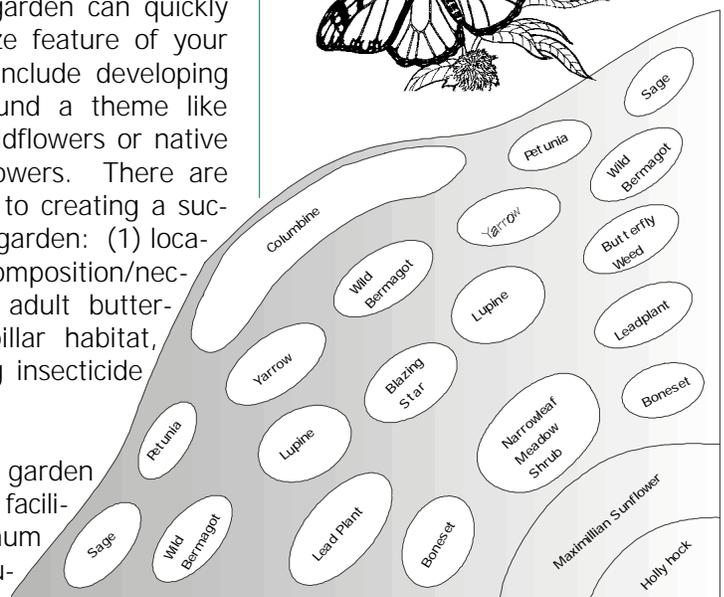
Butterfly Gardens

North America is home to more than 700 species of butterflies. At least 200 of them occur in Michigan and the Midwest including swallow-tails, skippers, satyrs, sulphurs, and cabbage butterflies along with the monarch, painted lady, comma, red-spotted purple, and red admiral. Adult butterflies are most attracted to red, yellow, orange, pink, and purple flowers that grow in sunny locations and that offer an easy source of nectar. Butterfly caterpillars will use at least 175 kinds of Midwest plants, nearly 50 of which are also excellent for attracting bees. Several kinds of moths, including hummingbird clearwings, night- and day-flying sphinx species, prometheas, and cecropias, are also regularly attracted to butterfly gardens.

A butterfly garden can quickly become the prize feature of your yard. Options include developing the garden around a theme like native prairie wildflowers or native woodland wildflowers. There are four key factors to creating a successful butterfly garden: (1) location, (2) plant composition/nectar sources for adult butterflies, (3) caterpillar habitat, and (4) avoiding insecticide use.

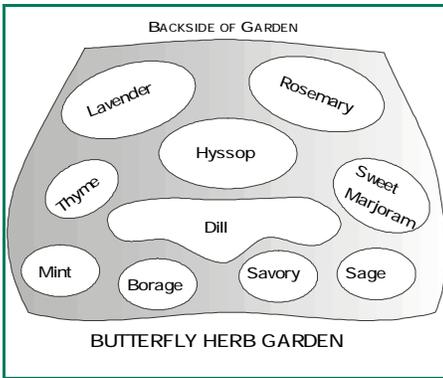
1. Locate the garden in a spot that facilitates maximum viewing opportunity.

The best location is one that receives sun from mid-morning to mid-afternoon because adults generally feed only in the sun. If sunny spots are limited in your yard, consider planting a small area of your vegetable garden to herbs. Many of the best bee and butterfly plants are herbs, including borage, hyssop, lavender, lovage, lemon balm, sweet marjoram, rose-mary, sage, dill, winter savory, parsley, thyme, and the mints.



BUTTERFLY GARDEN

BACKSIDE OF GARDEN



2. Plant perennial plants that provide excellent sources of nectar. Perennials will lessen your overall cost as they do not need to be replaced each year. When choosing plants, consider their blooming season, and select some that bloom early and others that do not bloom until late summer or fall. However, for earliest results and to add diversity to the garden, plant a few annual flowers. Also consider the mature height of plants and place the taller plants toward the back and work down in height toward the front. For open gardens that will be seen from all sides, establish the tallest plants in the center and work downward with the smallest plants at the edge. If you are using climbing plants be sure to use a climbing structure such as a lattice, fence, or building for backdrop.

Plants with a flat-topped towering head, like stiff goldenrod and zinnias, are excellent butterfly plants because the nectar is richer and more easily accessible. See the accompanying table for a list of plants that will provide good to excellent sources of nectar for butterflies, bees, and moths. Latin names are included to help you find stock at nurseries and garden centers.

3. Providing habitat for caterpillars as well as adult butterflies is

essential to a successful butterfly garden. Most butterfly caterpillars do not cause the leaf damage associated with moth caterpillars. Oaks, aspens, birches, boxelders, and spice bushes can provide the feeding habitat that butterfly caterpillars need. Some species feed specifically on certain plants. For example, monarchs use milkweed for both stages of life --adults visit the flowers for nectar and caterpillars feed on the leaves. The larvae of mourning cloaks eat nettles, and black swallowtails feed on parsley.

4. Most insecticides are lethal to butterflies in both larvae and adult stages. Avoid use of insecticides in or near the butterfly garden and on key caterpillar habitat. Pesticide use has had a major impact on butterfly numbers in recent years.

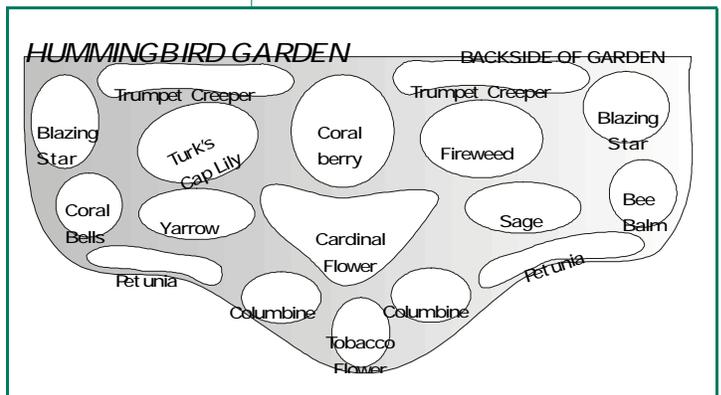
Hummingbird Gardens

Hummingbirds pollinate more than 160 native North American plants. Because of their extremely high metabolism, hummingbirds consume daily up to one-half their body weight in food and as much as eight times their body weight in fluids. Besides feeding on flower nectar, the ruby-throated hummingbird (the only hummingbird species found in Michigan) also eats small insects. Usually attracted to red, tubular flowers,

hummingbirds also use a wide variety of other flowers. Thus, you can add both diversity and color to your yard while providing excellent sources of nectar and small insects for hummingbirds. Incidentally, because orioles use many of the same plants as hummingbirds, your hummingbird garden may provide additional habitat for them and increase your viewing pleasure.

Unlike butterflies, hummingbirds find sources of food regardless of sun or shade. However, the plants themselves can have specific sunlight requirements. So, when planning the location of your hummingbird garden, consider the sunlight requirements or limitations of the plants you wish to highlight there. You may also want to consider visibility. Because hummingbirds are highly territorial, you might want to locate plants throughout your yard, in addition to the specialized garden.

You may also want to supplement natural nectar with hummingbird feeders near the garden and around the house. Place feeders in the shade and change the mixture of one part sugar (do not use honey) to four parts boiling water every three to five days. Cool the mixture before filling the feeder, and store the excess in the refrigerator. If the mixture in the feeder



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Plant Species for Butterfly and Hummingbird Gardens

Common Name	Scientific Name	Type ¹	Origin	Sunlight ²	B/H	Height ²	Blooming Season ²
American columbine	<i>Aquilegia canadensis</i>	P	native	F/P	B/H	1-2 ft	May-June
Bee Balm	<i>Monarda didyma</i>	P	native	F/P	H	3 ft	June-July
Blazing Star	<i>Liatrus</i> spp.	P	native	F/P	B/H	2-4 ft	July-Sept.
Boneset	<i>Eupatorium perfoliatum</i>	P	native	F/P	B	3-4 ft	July-Aug.
Butterflybush	<i>Buddleia davidii</i>	P	exotic	F/P	B	3-8 ft*	June-Aug.
Butterflyweed	<i>Asclepias tuberosa</i>	P	native	F/P	B	2-3 ft	July-Aug.
Cardinal flower	<i>Lobelia cardinalis</i>	P	native	F/P	H	3 ft	July-Sept.
Coral bells	<i>Heuchera sanguinea</i>	P	exotic	F/P	H	2.5 ft	May-July
Coralberry	<i>Symphoricarpos orbiculatus</i>	S	native	F/P	B/H	3 ft	
Fireweed	<i>Epilobium angustifolium</i>	P	native	F/P	B/H	2-4 ft	July-Aug.
Foxglove (Gerardia)	<i>Agalinis pedicularia</i>	P	native	F/P	H	3-5 ft	June-July
Gaillardia (firewheel)	<i>Gaillardia pulchella</i>	P	native	F	B/H	3 ft	June-Aug.
Hollyhock	<i>Althaea rosa</i>	P	native	F/P	B/H	5-8 ft	June-Aug.
Joe-pye-weed	<i>Eupatorium purpureum</i>	P	native	F/P	B	2-6 ft	July-Sept.
Leadplant	<i>Amorpha canescens</i>	P	native	F	B/H	2-4 ft	June-July
Lupine	<i>Lupinus perennis</i>	P	native	F/P	B/H	2 ft	June-July
Maximillian sunflower	<i>Helianthus maximiliani</i>	P	native	F	B/H	5 ft	Aug.-Sep.
Narrowleaf meadowsweet	<i>Spiraea alba</i>	S	native	F	B/H	4 ft	June-July
Oxeye sunflower	<i>Heliopsis helianthoides</i>	P	native	F	B/H	2.5-3 ft	July-Sept.
Purple coneflower	<i>Echinacea purpurea</i>	P	native	F/P	B/H	2-4 ft	July-Aug.
Scarlet petunia	<i>Petunia</i> spp.	A	exotic	F/P	H	1 ft	through summer
Scarlet sage	<i>Salvia splendens</i>	A	exotic	F/P	H	2.5 ft	until frost
Swamp milkweed	<i>Asclepias incarnata</i>	P	native	F/P	B	2-4 ft	June-Aug.
Tobacco flower	<i>Nicotiana sanderae</i>	A	exotic	F	H	1-2 ft	through summer
Trumpet creeper	<i>Campsis radicans</i>	V	native	F/P	H	climbing	July-Aug.
Turk's cap lily	<i>Lilium michiganense</i>	P	native	F/P	H	3 ft	July-Aug.
Western sunflower	<i>Helianthus occidentalis</i>	P	native	F	B/H	2 ft	July-Aug.
Wild Bergamot	<i>Monarda fistula</i>	P	native	F	B/H	2 ft	June-July
Yarrow	<i>Achillea millefolium</i>	P	native	F	B	2 ft	June-Aug.

¹A = annual; P = perennial; S = shrub; V = vine

²F = full sun, P = partial shade; Sun requirements, height, and blooming season may vary with individual cultivars.

*Butterflybush will die back in the winter

B = for butterflies H = for hummingbirds

has spoiled (a black fungus or very cloudy water are clues), clean it with a small amount of vinegar mixed with water, then allow to dry thoroughly before refilling. Because they are migratory species, you only have to keep the sugar solution available from April to September.

In addition to sunlight requirements, be aware of other characteristics of your plant choices. Trumpet creeper, for example, is an attractive plant to hummingbirds, but it requires a fence or other structure on which to climb. Place vines and shrubs to the back, working down in height toward the front of the garden. Spread your bloom-

ing season as much as possible. Adding a few annuals to the variety of early- to late-blooming perennials will give the garden a head start. Refer to the accompanying list of plants that will provide both nectar and insects for hummingbirds. Also, realize insecticides not only kill the small insects that hummingbirds use for food, but large

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Plant Species for Prairie Gardens

Common Name	Scientific Name	Type	Height	Blooming Season
Big bluestem	<i>Andropogon gerardii</i>	G	3-6 ft	
Indian grass	<i>Sorghastrum nutans</i>	G	3-5 ft	
Little bluestem	<i>Schizachyrium scoparium</i>	G	2-3 ft	
Switchgrass	<i>Panicum virgatum</i>	G	3-5 ft	
American columbine	<i>Aquilegia canadensis</i>	P	1-2 ft	May-June
Black-eyed Susan	<i>Rudbeckia hirta</i>	P	1-3 ft	June-Aug.
Gray-headed				
prairie coneflower	<i>Ratibida pinnata</i>	P	3-5 ft	July-Sept.
Maximillian sunflower	<i>Helianthus maximilliani</i>	P	5 ft	Aug.-Oct.
New England aster	<i>Aster nova angliae</i>	P	1-4 ft	Sept.-Oct.
Prairie blazing star	<i>Liatrus pycnostachya</i>	P	4 ft	August
Prairie coreopsis	<i>Coreopsis palmata</i>	P	1-3 ft	July
Prairie dock	<i>Silphium terebinthinaceum</i>	P	2-6 ft	Aug.-Sept.
Prairie milkweed	<i>Asclepias sullivanti</i>	P	2 ft	June-July
Purple coneflower	<i>Echinacea purpurea</i>	P	2-4 ft	July-Aug.
Wild bergamot	<i>Monarda fistulosa</i>	P	2 ft	July-Aug.
Wild indigo	<i>Baptisia tincitoria</i>	P	3 ft	June-July
Yarrow	<i>Achillea millefolium</i>	P	2 ft	June-Aug.

¹G = Grass; P = Perennial

doses of insecticides can be directly lethal to the birds themselves.

Native Prairie Gardens

Native prairie grasses and wildflowers are a shrinking resource in Michigan, and they attract a large number of wildlife species. In fact, there are many species that can only survive on native grasses and wildflowers. Wildlife benefit most when the mixture of warm season grasses and wildflowers occurs in stands of 40 acres or more. However, even small plantings in backyard gardens can help wildlife and are also attractive. Native prairie gardens, as well as the other

gardens mentioned above, reduce mowing time and add visual enjoyment, even in winter as the grasses stand up to snow. Some wildflowers, such as coreopsis, provide winter seed for goldfinches and other birds.

Because most native grasses and wildflowers do best on upland sites, locate this garden in a sunny to partly shaded, well-drained location. The accompanying panel is a list of good plants to consider. If the site you have in mind is moist, big bluestem and switchgrass will likely establish without problems but you might also want to add

prairie and curly dock, swamp milkweed, native impatiens, sedges, and mints. A nursery expert should be able to help you with your plant selections.

FOR ADDITIONAL CHAPTERS CONTACT:

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Private Land Partnerships: This partnership was formed between both private and public organizations in order to address private lands wildlife issues. Individuals share resources, information, and expertise. This landowner's guide has been a combined effort between these groups working towards one goal: Natural Resources Education. We hope this manual provides you with the knowledge and the motivation to make positive changes for our environment.

FOR ADDITIONAL ASSISTANCE: CONTACT YOUR LOCAL CONSERVATION DISTRICT