



HOME & GARDEN

Attracting Butterflies to the Garden no. 5.504

by P.A. Opler and W.S. Cranshaw¹ (10/08)

Quick Facts...

Many kinds of butterflies can be found in Colorado. Encourage butterflies by planning a butterfly garden.

Butterflies seek out areas with food plants for the caterpillar stage. Adult butterflies also feed on fluids such as nectar from flowers.

Butterfly visits increase when environmental needs are met.

Gardening practices to attract and retain butterflies often differ from regular gardening practices.

Dozens of butterfly species commonly occur along the Front Range and eastern Colorado and are a welcome garden addition for many people. Butterflies often appear to be just passing through, occasionally stopping for a drink of nectar. You can prolong the stay of these colorful insects and draw in others by providing the food and shelter they need.

Planning the Butterfly Garden

Make a yard more attractive to butterflies by providing the proper environment. Most important are food plants used by the immature stages (various caterpillars), food sources used by the adult butterflies, and physical environment.

Most butterflies prefer some shelter from the high winds common along the Front Range. At the same time, they like open, sunny areas. Windbreak plantings or other means of sheltering the butterfly garden can help provide a suitable physical environment.

Certain kinds of butterflies (mostly males) often can be seen on moist sand or mud collecting around puddles of water where they feed. The function of these “mud-puddle clubs” is not fully understood, but it is thought that the water contains dissolved minerals needed by the insects. Maintaining a damp, slightly salty area in the yard may attract groups of these butterflies.

Adult female butterflies spend time searching for food plants required by the immature caterpillar stage. Most butterflies have specific host plants on which they develop. For example, caterpillars of the monarch butterfly develop only on milkweed, while the black swallowtail feeds only on parsley, dill and closely related plants. When females find the proper host plant, they may lay eggs on it.

Providing the necessary food plants for the developing caterpillars also allows production of a “native” population that can be observed in all stages of development. Most species, however, fly away as adult butterflies.

Food for adult butterflies usually consists of sweet liquids, such as nectar from flowers, that provide energy. Some flowers contain more nectar, and are more attractive to butterflies. Often, specific types of flowers and flower colors also are more attractive. Some species feed on honeydew (produced by aphids), plant sap, rotting fruit and even bird dung.

When planning a garden, create a large patch of a flower species to attract and retain butterflies. Consider flowers that bloom in sequence. This is particularly important during summer when flower visiting by butterflies is most frequent. Flowers and flowering shrubs that might be good choices for an eastern Colorado butterfly garden are included in Table 1.

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Common butterflies in eastern Colorado and the foods they use are shown in Table 2. Include these food sources to encourage a steady flow of butterfly visitors.

Common Conflicts

Many of the most attractive nectar plants are commonly considered as “weeds” in other settings. Good examples are various thistles and dandelion, all highly attractive to several common butterflies. The well-manicured and tended garden discourages some butterfly species that develop on wild types of plants. (Note: Canada thistle is considered a noxious weed. Areas that have formed weed districts prohibit by law the culture of Canada thistle.)

A few butterflies also develop on certain garden crops and may be pests if the vegetable is considered more desirable than the insects. The European cabbage butterfly (on broccoli, cabbage and other mustards) and the black swallowtail (on parsley and dill) are common garden inhabitants in Colorado.

Use insecticides sparingly because most are not compatible with attracting and increasing the number of butterflies in a yard. Most garden insecticides can kill the caterpillar stages of the insects. Adult butterflies also can be killed by resting on insecticide-treated surfaces.

Table 1: Some nectar-bearing plants commonly visited by butterflies.

Asters (<i>Aster</i> spp.)
Bee balm (<i>Monarda</i>)
Butterfly bush (<i>Buddleia davidii</i>)
Butterfly plant (<i>Asclepias tuberosa</i>)
Bush cinquefolia (<i>Potentilla fruticosa</i>)
Cosmos (<i>Cosmos</i> spp.)
Gaillardia (<i>Gaillardia</i> spp.)
Lilac (<i>Syringa vulgaris</i>)
Marigold (<i>Tagetes</i> spp.)
Ornamental thistles
Rabbitbrush (<i>Chrysothamnus nauseosus</i>)
Sunflower (<i>Helianthus</i> spp.)
Sweet pea (<i>Lathyrus odoratus</i>)
Verbena (<i>Verbena</i> spp.)
Zinnias (<i>Zinnia</i> spp.)

References

- A Field Guide to Western Butterflies*, 2nd Edition. 1999. P.A. Opler and A. Wright (illustrator). Peterson Field Guide Series, Houghton-Mifflin.
- Butterflies of North America*. P.A. Opler, R.E. Stanford, H. Pavulaan, coordinators, USDI-USGS, Northern Prairie Wildlife Research Center. <http://www.npwrc.usgs.gov/resource/distr/lepid/bflyusa/bflyusa.htm>
- Butterfly Gardening: Creating Summer Magic in Your Garden*. 1990. Xerces Society, in association with the Smithsonian Institution. Sierra Club Books. San Francisco.
- Emmel, T.C., M.C. Minno and B.A. Drummond. 1992. *Florissant Butterflies: A Guide to the Fossil and Present Day Species of Central Colorado*. Stanford University Press. Stanford, Calif.
- Ferris, C.D., and F.M. Brown. 1981. *Butterflies of the Rocky Mountain States*. University of Oklahoma Press. Norman, Okla.
- Opler, P., and S.W. Strawn. 1988. *Butterflies of the American West: A Coloring Album*. Roberts Rinehart. Niwot, Colo.
- Opler, P., and A.B. Wright. 1994. Peterson First Guides. *Butterflies and Moths*. Houghton Mifflin. Boston, New York.

Table 2: Food used by common eastern Colorado butterflies and skippers.

Butterfly	Flight period	Caterpillar food	Common nectar plants, adult food
Black swallowtail (<i>Papilio polyxenes</i>)	April-September	Dill, parsley, fennel, carrot	Butterfly weed, alfalfa, thistle
Checkered skipper (<i>Pyrgus communis</i>)	April-October	Mallow, hollyhock	Verbena, dandelion, Canada thistle, aster
Checkered white (<i>Pontia protodice</i>)	April-November	Tumble mustard	Alfalfa, mustards, bee balm
Clouded sulfur (<i>Colias philodice</i>)	April-November	Alfalfa, clover	Alfalfa, phlox, rabbitbrush, aster, marigold
Edwards fritillary (<i>Speyeria edwardsii</i>)	June-September	Nuttall's violet	Rabbitbrush, gaillardia, bee balm
European cabbage butterfly (<i>Pieris rapae</i>)	April-October	Broccoli, cabbage (mustard family)	Many
Gorgone checkerspot (<i>Charidryas gorgone</i>)	May-September	Sunflowers	White clover, dandelion, Canada thistle
Gray hairstreak (<i>Strymon melinus</i>)	May-October	Many	Many
Hackberry butterfly (<i>Asterocampa celtis</i>)	May-September	Hackberry	Rotting fruit, sap flows
Melissa blue (<i>Lycaeides melissa</i>)	April-October	Wild licorice, alfalfa, etc.	Bee balm, sweet clover
Monarch (<i>Danaus plexippus</i>)	June-October	Milkweed	Cosmos, Canada thistle, rabbitbrush, etc.
Mourning cloak (<i>Nymphalis antiopa</i>)	February-November	Willow, aspen, cottonwood, elm	Rabbitbrush, milkweed, sap
Orange sulfur (<i>Colias eurytheme</i>)	April-October	Alfalfa, vetch, pea	Alfalfa, marigold, zinnia
Painted lady (<i>Vanessa cardui</i>)	April-October	Thistle, hollyhock, sunflower	Grape hyacinth, cosmos, zinnia, alfalfa, many flowers
Silver-spotted skipper (<i>Epargyreus clarus</i>)	May-July	Wild licorice, locust, etc.	Lilac, dogbane, zinnia, sweet pea, Canada thistle
Two-tailed swallowtail (<i>Papilio multicaudatus</i>)	April-August	Green ash, chokecherry	Geranium, thistle, milkweed
Variegated fritillary (<i>Euptoieta claudia</i>)	April-October	Various, including pansy	Rabbitbrush, Canada thistle
Weidemeyer's admiral (<i>Limentitis weidemeyerii</i>)	June-September	Willow, aspen, cottonwood	Sap flows, snowberry, dung
Western tiger swallowtail (<i>Papilio rutulus</i>)	May-July	Willow, cottonwood, chokecherry	Zinnia, lilac, butterfly bush, thistle, milkweed
Wood nymph (<i>Cercyonis pegala</i>)	June-August	Grasses	Rabbitbrush, clematis, Canada thistle

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Some Common Colorado Butterflies



Figure 1: Black swallowtail.



Figure 3: Two-tailed swallowtail.



Figure 5: Monarch.



Figure 2: Black swallowtail larvae. Early instar (top), later instar (bottom).



Figure 4: Two-tailed swallowtail larvae. Early instar (top), later instar (bottom).



Figure 6: Monarch larva.



Figure 11: Variegated fritillary.



Figure 7: Mourning cloak.



Figure 9: Common sulphur.



Figure 8: Mourning cloak larva.

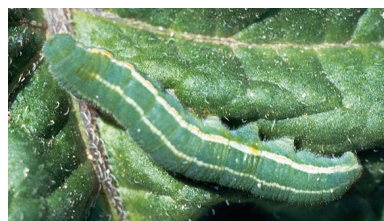


Figure 10: Common sulphur larva.



Figure 12: Variegated fritillary larva.