Washington is home to several species of butterflies and a wonderful way to view these delightful insects is to entice them to your yard with plants that butterflies need for all phases of their survival and reproduction. Conserving butterflies and attracting a diversity of species means incorporating plants for all butterfly life stages – eggs, larva (caterpillar), pupa (the chrysalis), and adult. A variety of flowers, trees, shrubs, and groundcovers used by adults and caterpillars should be included in your landscape to provide for several species of butterflies.

No site is too small to create a butterfly garden. You can even begin by adding flowers and herbs to an existing flower bed or container garden.

The reward for creating a butterfly garden is that, in addition to butterflies, it can attract other flying pollinators including bumblebees, moths, and hummingbirds.

**Creating the Butterfly Garden**

**Choose the Site**

**Butterflies are creatures of the sun.** Butterflies love a sunny area sheltered from wind. All adult butterfly activities are influenced by the sun. They use it to navigate and increase body temperature necessary for strong flight. They only drink nectar from plants that grow in full sun, so it’s important that you locate the butterfly garden in areas of the landscape that get 6 hours of sun per day.

Butterflies use up more energy flying in windy areas and, therefore, prefer feeding where they do not have to fight the wind. In windy environs, create a hot spot for butterflies by planting on a protected south or southwest side of a building, fence, or hedge.

For your own pleasure, determine where a concentration of butterfly plants would be most visible and easy to maintain, such as:

- Close to a frequently-used window
- Along a walkway or next to a patio or other seating area
- Near a frequently-used entry
- In your vegetable garden
Plants for Adult Butterflies

Flying requires a great amount of energy; therefore, butterflies must consume high-energy food such as flower nectar. Flower nectar contains energy-rich sugars that have the same basic chemical make-up no matter what flower it comes from. Hence, a hungry adult butterfly may visit several different kinds of flowers to get the same energy. Likewise, a single nectar producing flower may be visited by several different butterfly species. A wide variety of flowers, including many popular garden and landscape plants (Table 1), can provide the proper nectar for butterflies. However, butterflies do have preferences:

- Brightly-colored, fragrant plants especially red, yellow, orange, pink, or purple.
- Plants with flat flower heads that contain small multiple florets, such as asters, which furnish butterflies with landing pads where they can rest, sip nectar, and pollinate the plants.
- Flowers with short tubes so they can reach the nectar such as mints and marigolds.
- Native plants with which they have evolved a mutually beneficial association.

Some ornamental flowering plants have been hybridized to produce particularly showy flowers. Unfortunately, these highly-developed plants may not be good sources of nectar so avoid flowers described as “double,” and choose the simpler, single-flowered varieties.

Become familiar with butterfly plants in bloom from spring to late fall. To extend the blooming season, include annual flowers and remove dead flower-heads to lengthen blooming periods.

**Good container plants.** Fuchsias, sweet alyssum, garden sage, dianthus, and lavender; avoid tall annuals such as tall forms of marigold, zinnia, and cosmos.

**Winter.** To keep a butterfly garden from looking bleak during winter, include plants with interesting winter structure or evergreen foliage such as lavender, evergreen huckleberry, and hyssop.

**Butterfly Watching**

Butterfly watching can give you a new awareness of the plants and habitats around your property. During summer, you can survey what types of butterflies appear in your yard and neighborhood. For quick reference mark the pages in your butterfly field guide (see Resources) showing the common local species. Take notes on what plants butterflies visit and use these notes to decide which plants to include in your butterfly garden.

Butterflies are best found in open, sunny areas with flowers. They are active on sunny days and inactive on cloudy days and are best observed when feeding or basking. On cool days and in the mornings, they may be seen basking in the sun with their wings open to absorb heat quickly.

In addition to your yard, rural roadsides, power line cuts, irrigation ditches, mud-puddles, sunny streamsides, and city flower beds are good for observing butterflies. They may even land on you if you remain still. Butterflies sometimes become so involved in drinking that you can approach to within inches if you move slowly and thoughtfully. Binoculars are almost as helpful to the butterfly-watcher as to the birder enabling you to survey a large field for butterflies, or sit on your porch to view your butterfly garden. Lower-powered binoculars that focus closer are best. Finally, when looking for butterflies think small; many common species have a wing span of an inch or less.
Plants are listed alphabetically by their botanical name. The botanical name includes the genus and species. When referencing more than one plant species in a particular genus, the abbreviation “spp.” is used. Considered seeking assistance from a horticulturist or local nursery specializing in native and wildlife plants, or the local chapter of Washington Native Plant Society (www.wnps.org), to determine which species and varieties of plants are appropriate for your area, or zone.

### Table 1. Adult Butterfly and Caterpillar Plants

Plants are listed alphabetically by their botanical name. The botanical name includes the genus and species. When referencing more than one plant species in a particular genus, the abbreviation “spp.” is used. Considered seeking assistance from a horticulturist or local nursery specializing in native and wildlife plants, or the local chapter of Washington Native Plant Society (www.wnps.org), to determine which species and varieties of plants are appropriate for your area, or zone.

### Evergreen Trees
- A, C Madrona, Arbutus menziesii*
- C Incense-cedar, Calocedrus spp.
- C Pine, Pinus spp.
- C Douglas-fir, Pseudotsuga spp.

### Deciduous Trees
- C Maple, Acer spp.
- C Alder, Alnus spp.
- C Birch, Betula spp.
- A, C Dogwood, Cornus spp.
- A, C Native Black Hawthorn, Crataegus douglasii
- A, C Garden apple, crabapple, Malus spp.
- C Black Cottonwood, Populus trichocarpa
- C Aspen, Populus tremuloides
- A, C Bitter Cherry, Prunus emarginata
- C Oak, Quercus spp.
- C Cascara, Rhamnus purshiana
- A, C Willow, Salix spp.

### Evergreen Shrubs (short and tall)
- C Manzanita, Arctostaphylos spp.
- A, C Wild-lilac, Lilium spp.
- A, C Serviceberry, Amelanchier alnifolia
- C Oceanspray, Heleocidrus spp.
- A Bluebeard, Caryopteris x clandonensis
- A Rabbitbrush, Chrysothamnus spp.
- A, C Red-twig dogwood, Cornus sericea
- A Mock-orange, Philadelphus lewisii
- A, C Chokecherry, Prunus virginiana
- A, C Bitterbrush, Purshia tridentata
- A Wild azalea, R. occidentale
- A, C Wild rose, Rosa spp.
- A Elderberry, Sambucus spp.
- A, C Spirea, Spiraea spp.
- A Lilac, Syringa spp.
- A Garden blueberry, Vaccinium spp.
- A Chaste tree, Vitis agnus-catus

### Garden Perennials
- A Yarrow, Achillea spp.
- C Rockcress, Arabis caucasica
- A Aster, Aster spp.
- A Yellow alyssum, Aurinia saxatilis
- A Campanula, Campanula spp.
- A Daisy, Chrysanthemum spp.
- A Native tansy, Tanacetum vulgare
- A Other native thistles, Cirsium spp.
- A Coreopsis, Coreopsis spp.
- A Clove (Mountain) pink, Dianthus spp.
- A Coneflower, Echinacea purpurea
- A Globe-thistle, Echinops spp.
- A Sea holly, Eryngium amethystinum
- A Wallflower, Erythrum spp.
- A Blanket flower, Gaillardia spp.
- A Heliotrope, Heliotropium spp.
- A Gayfeather, Liatris spp.
- A Static, Limonium latifolium
- A Lupine, Lupinus spp.
- A Monkey flower, Mimulus spp.
- A Bee balm, Monarda didyma
- A Catmint, Nepeta spp.
- A Penstemon, Penstemon spp.
- A Phlox, Phlox spp.
- A Black eyed Susan, Rudbeckia hirta
- A Pincushion flower, Scabiosa spp.
- A Fall sedum, Sedum spectabile
- A Dusty miller, Senecio cineraria
- A Tall verbena, Verbenae bonariensis

### Ground Covers
- C Kinnikinnik, A. uva-ursi
- A Seathrift, Armeria maritima
- C Salal, Gaultheria shallon
- A Heather, Erica spp.
- A Wild strawberry, Fragaria spp.
- A Candytuft, Iberis spp.

### Vines and Vine-like Plants
- C Hoops, Humulus lupulus
- C Honeysuckle, Lonicera ciliosa; L. hirsutula
- A Twinberry, Lonicera involucrata
- A, C Trailing nasturtium, T. majus

### Wildflowers
- A Pearly everlasting, Anaphalis margaritacea
- A, C Angelica, Angelica laciniosa
- A, C Butterfly weed, Asclepias spp.
- C Bleeding heart, Dicentra spp.
- A Wild-buckwheat, Eriogonum spp.
- A Gilia, Gilia spp.
- A Cow-parsnip, Heracleum lanatum
- A Desert-parsley, Lomatium spp.
- A Lupine, Lupinus spp.
- A Checker mallow, Sidalcea oregana
- A Goldenrod, Solidago spp.
- A Dandelion, Taraxacum officinale
- A Stinging nettle, Urtica dioica
- A Violet, Viola spp.

### Garden Annual Flowers
- A Ageratum, Ageratum houstonianum
- A Alyssum, Alyssum maritimum
- C Borage, Borago officinalis
- A Calendula, Calendula officinalis
- A Clarkia, Clarkia spp.
- A Spiderflower, Cleome spinosa
- A Cosmos, Cosmos bipinnatus
- A Sweet William, Dianthus barbatus
- A Cineraria, Helichrysum spp.
- A Forget-me-not, Myosotis spp.
- A French marigold, Tagetes patula
- A Low verbena, Verbena spp.
- A Zinnia, Zinnia elegans

### Garden Herbs and Vegetables
- A Garden mint, Mentha spp.
- A Oregano, Origanum vulgare
- A Garden sage, Salvia spp.
- A Thyme, Thymus spp.
- A, C Broccoli, carrot, kale, radish, parsley

### Notes
- A = Nectar plants for butterflies in their adult stage.
- C = Larval food plants for butterflies in their caterpillar stage.
- * = A plant or genus that is native to the Pacific Northwest.

**Bold type** = Recommended plant

Do not plant Butterfly bush (Buddleia spp.), it has been declared a noxious weed.
Plants for Breeding 
and Caterpillar Food

The caterpillar is the main feeding and growing stage in the butterfly life cycle. If you welcome the opportunity to observe the entire butterfly life cycle in your yard, furnish breeding plants and larval (caterpillar) food. Although mating may occur anywhere, females probably will not venture great distances from specific caterpillar host plants, especially if there is an ample supply of nectar nearby.

Adult butterflies lay their eggs on or near specific host plants because these plants supply all nutritional needs of the caterpillars. Caterpillars are much pickier about their food than their adult counterparts. This specificity is apparently so strong that most caterpillars will starve to death if they cannot find their host plants soon after emerging from the egg.

Fortunately, many larval food plants are common and your yard may already have some. However, if you know what butterflies occur in your area, you can make a point of planting caterpillar plants listed in Table 1. These plants are sometimes partially or completely consumed by the caterpillar. Some larval host plants have weedy characteristics, so locating the breeding and feeding grounds in a patch of wild vegetation in a corner of your property is advised. Group larval food plants just as you would nectar plants. This will help females locate future nursery sites and provide caterpillars with ample nourishment.

Moths

Moths are fascinating visitors to the evening garden. Be sure to go “moth watching” at dusk on some warm summer evening. Use a flashlight after dark and try covering it with red cellophane so as not to distract moths from feeding.

In addition to being important pollinators, moths are a critical food source for breeding birds, bats, and spiders. There are at least ten times as many moth species as butterflies in Washington. Of the 6,000 species of moths in North America, only two have caterpillars that favor woolen garments and carpets. Most larvae (caterpillars) feed on a variety of plants including alder, apples, azaleas, fuchsias, grapes, cottonwood, poplar, willow, snowberry, and cherry. Adult sphinx moths extract nectar from deep-throated, fragrant flowers that open at night. Like hummingbirds, they hover in flight while feeding, but instead of the long beak, they have a long tongue like a drinking straw.

Differences between moths and butterflies include:

<table>
<thead>
<tr>
<th>Butterflies</th>
<th>Moths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day fliers</td>
<td>Generally night fliers</td>
</tr>
<tr>
<td>Often brightly colored</td>
<td>Generally less colorful (with some dramatic exceptions)</td>
</tr>
<tr>
<td>Antennae are not feathery and are knobbed at ends</td>
<td>Antennae may be feathery and not knobbed</td>
</tr>
<tr>
<td>Pupa has no silky cocoon around it</td>
<td>Pupa is often in a silky cocoon</td>
</tr>
</tbody>
</table>

Moths and butterflies take nectar from many of the same plants. Flowers that attract night-flying moths include:

- Catmint, *Nepeta* spp.
- Yucca, *Yucca filamentosa*
- Jasmine, *Jasminum* spp.
- Beebalm, *Monarda didyma*
- Evening-primrose, *Oenothera* spp.
- Tall garden phlox, *Phlox* spp.
- Sweet William, *Dianthus barbatus*
- Honeysuckle, *Lonicera ciliosa*
- Petunia, *Petunia x hybrida*
- Lilac, *Syringa* spp.
- Fireweed, *Epilobium angustifolium*
- Four o’clock, *Mirabilis jalapa*
Planting Plan

A simple planting plan (Fig 1.) allows you to experiment with and plan the locations of plants on paper before any work begins. It can be drawn freehand on any blank piece of paper and may include as much detail as you choose. A more detailed plan can be drawn to scale and may include plant species, locations, quantities, and spacing. You may use a circle template to make different size circles to represent the sizes of plants. Design according to plant color, shape, sun/shade requirements, height, and soil needs.

Keep your ideas flexible; final adjustments to any plan will always occur at planting time.

Before planting, experiment with the garden’s shape by outlining the boundaries with a garden hose or several stakes pounded in the ground. You can move these into different shapes and then use the line to provide a well-defined edge. Spade and/or till the soil; add compost or other organic material as needed. Keep in mind that some of the best butterfly plants require fertile, well-drained soil. For the most successful plant survival, it is best to research the plant requirements before you design your garden.

Finally, place the plants while still in their containers where you think they belong. Step back, view the area from various angles, and see if you want to change anything. Provide plenty of water for the new plants right after planting and during the first growing season.

**No insecticides.** They are designed to kill insects which is what a butterfly is. Use natural diversity to control other insect populations by planting many species of plants.
Enhancement Features

Water and Mineral Sources
Butterflies take water and trace minerals from patches of wet sand or soil. Having one of these amenities can attract a large party of butterflies to one spot. The mud around the edge of a pond, under a hose bib, or a birdbath may already be a popular spot.

To create a small damp puddle site, dig out 2 or 3 inches of soil about 24 inches wide in a frequently watered area. Water will collect there. Another way to provide a drinking place is to sink a small bucket in the ground and fill it almost to the top with wet sand. A shallow terra cotta plant saucer sunk into the ground and kept moist works well and may be filled with over-ripe fruit which butterflies love. Place these water sources in sunny areas out of the wind and near nectar plants. If cats are a concern, put wet sand in a birdbath or other elevated container.

Basking Sites
On cool days, in the morning, and periodically throughout the day, butterflies warm their blood and flight muscles by basking with their wings open to the sun. Place a few large stones or rocks in sunny areas or facing south to serve as basking sites. Again, if cats are a concern, put rocks in a birdbath or other elevated container.

Hibernation Sites
Some butterfly species migrate south as adults. Butterflies that overwinter in colder areas such as the Washington do so as eggs (such as the banded hairstreak), furry caterpillars (fritillaries and crescents) and pupae (in the chrysalis stage such as tiger swallowtails and cabbage whites). The best way to help butterflies survive the winter is to adopt a maintenance plan that meets your aesthetic requirements without disturbing the butterfly overwintering habitat. Don’t be too concerned about tidiness in all areas of your property. Over-zealous fall yard and garden cleanup removes the very stuff that butterflies depend on to get through the winter, including snags, downed branches and wood, thick undergrowth, and brush piles. Research indicates that “butterfly hibernation boxes” which you may have seen in garden stores and catalogs have not been effective at attracting overwintering butterflies because the structure does not match the natural form.

Natural Areas
Many butterfly species seek shelter among thick plants and tall grasses at night and during bad weather. If possible, leave or add wild patches in out-of-the-way places in your yard, or discontinue mowing a patch of lawn. A bonus is that you’ll probably be growing larval plants, too. To avoid complaints, mow a strip around the unmowed area and let neighbors and local officials know what you are trying to accomplish. Registering your yard as a WDFW Backyard Wildlife Sanctuary and installing the signs often helps neighbors understand and appreciate your intentions.

Do not purchase and release farm-raised mail-ordered butterflies.

These butterflies, while possibly a species that occurs locally, do not have the genetics of our local butterflies and could introduce characteristics that are not adapted to this area, such as breeding out non-overwintering instincts, or they may weaken the genetics of our local populations. They could also introduce a devastating disease, in addition to competing for the ever-dwindling habitat of our local populations.
Table 2. Some Common Pacific Northwest butterflies and associated plants

This list includes common butterflies found in different areas of Washington State. After you’ve identified the species in your area, you can use the plants listed in Table 1 to attract them to your yard. For photographs of these species see [http://www.bentler.us/eastern-washington/insects/](http://www.bentler.us/eastern-washington/insects/); and [http://www.butterfliesandmoths.org](http://www.butterfliesandmoths.org).

Caterpillar food & host plants = Plants on which eggs are laid and eaten by butterfly larvae (caterpillars).

Nectar sources = Sources used by adult butterflies on which to feed.

<table>
<thead>
<tr>
<th>Butterfly</th>
<th>Caterpillar food &amp; host plants</th>
<th>Nectar sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western tiger swallowtail</td>
<td>Big-leaf maple, willow, aspen, cottonwood, sycamore, cherry, alder, apple, serviceberry, black hawthorn</td>
<td>Common lilac, mock-orange, rhododendron, native thistle, phlox, garden mint, lavender, verbena, wallflower, native honeysuckle, sweet William, giant-hyssop</td>
</tr>
<tr>
<td>Pale swallowtail</td>
<td>Buckbrush, cherry, black hawthorn, cascara, alder, hardhack spiraea, oceanspray</td>
<td>Oceanspray, penstemon, and those listed for Western tiger swallowtail</td>
</tr>
<tr>
<td>Clodius parnassians</td>
<td>Bleeding heart</td>
<td>Blackberry</td>
</tr>
<tr>
<td>Pine white</td>
<td>Pine (especially western white and ponderosa), Douglas-fir, fir, hemlock, red-cedar</td>
<td>Dusty miller, daisies, coreopsis, goldenrod</td>
</tr>
<tr>
<td>Orange sulphur</td>
<td>Alfalfa, and other legumes</td>
<td>Alfalfa and other legumes, thistle, aster, red-twig dogwood</td>
</tr>
<tr>
<td>Cabbage white (Cabbage butterfly)</td>
<td>Cabbage, broccoli, radish, nasturtium, spiderflower</td>
<td>Money plant, coreopsis, dandelion, native thistle</td>
</tr>
<tr>
<td>Sara's orangetip</td>
<td>Winter cress, nasturtium, moneyplant, rockcress</td>
<td>Native cherry, strawberry, monkey flower, dandelion, violet, rock cress</td>
</tr>
<tr>
<td>Brown elfin</td>
<td>The flower parts, buds and seed pods of apple, salal, buckbrush, bitterbrush, manzanita rhododendron, azalea, oceanspray, blueberry, sedum, kinnikinnik</td>
<td>Cherry, willow, Indian plum, bitterbrush, winter cress, blueberry, wild-buckwheat, kinnikinnik</td>
</tr>
<tr>
<td>Purplish copper</td>
<td>Sorrel</td>
<td>Mint, heather, and many composites</td>
</tr>
<tr>
<td>Spring azure</td>
<td>Flower parts and seeds of dogwood, oak, buckthorn, apple, madrone, viburnum, cherry, plum, blueberry, escallonia, hardhack, manzanita, oceanspray, salah</td>
<td>Native cherry, plum, willow, mountain-lilac, rock cress, winter cress, escallonia, milkweed, forget-me-not, dandelion, violet, miner’s lettuce, many plants in the mustard family</td>
</tr>
</tbody>
</table>

[Photo credit: WDFW Images]
Silvery blue
*Caterpillar food & host plants*: Mostly lupine; also wild pea and other legumes
*Nectar sources*: Native cherry, plum, coneflower, desert-parsley, lupine

Lorquin’s admiral
*Caterpillar food & host plants*: Willow, chokecherry, aspen, oceanspray, cottonwood, hardhack spirea, cherry, apple
*Nectar sources*: Thistle, giant-hyssop, Barrett’s penstemon; also rottin fruit, animal droppings, carrion

Red admiral
*Caterpillar food & host plants*: Mostly stinging nettle
*Nectar sources*: Daisy, aster, native thistle, dandelion, goldenrod, gayfeather, ageratum, milkweed, candytuft, alfalfa, sedum, wallflower, fireweed, mallow, sea-holly, garden mint, red-valerian, penstemon, spiraea, germander

Painted lady
*Caterpillar food & host plants*: Mostly native thistle; also, sunflower, pearly everlasting, stinging nettle, borage, hollyhock, legumes
*Nectar sources*: Oregon-grape, rabbitbrush, zinnia, dandelion, native thistle, gayfeather, aster, daisy, cosmos, mint, sweet William, red-valerian, milkweed, pincushion flower, wallflower, candytuft, coneflower, aster

Mourning cloak
*Caterpillar food & host plants*: Elm, cottonwood, willow, birch, hackberry, black hawthorn, wild rose
*Nectar sources*: Willow, milkweed, rockcress, Shasta daisy, daphne; also tree sap and rottin fruit

Milbert’s tortoiseshell
*Caterpillar food & host plants*: Stinging nettle.
*Nectar sources*: Willow, lilac, thistle, daisy, goldenrod, marigold, ageratum, stonecrop, wallflower, aster, dandelion, calendula

Mylitta crescent
*Caterpillar food & host plants*: Native thistle
*Nectar sources*: Pearly everlasting, goldenrod, aster

Satyr comma (Satyr anglewing)
*Caterpillar food & host plants*: Stinging nettle
*Nectar sources*: Dandelion, aster; also rottin fruit, tree sap

Common wood nymph
*Caterpillar food & host plants*: Grasses
*Nectar sources*: Coneflower, garden mint, sunflower, fleabane, penstemon, spiraea, mock-orange, alfalfa; also rottin fruit, tree sap

Woodland skipper
*Caterpillar food & host plants*: Grasses; caterpillars feed at night
*Nectar sources*: Bluebeard, lavender, oregano, coreopsis, pearly everlasting, statice, black-eyed Susan, native thistle, dandelion, marigold, fall sedum, aster

Fritillary spp.
*Caterpillar food & host plants*: Violets
*Nectar sources*: Milkweed, mints, mountain laurel, spirea, native thistles, bergamot, goldenrod, purple coneflower, black-eyed susans
Resources

Books


Field Guides


On-line Publication


Organizations


Websites


Lady Bird Johnson Wildflower Center, The Univ. of Texas at Austin. www.wildflower.org/howto/ click Butterfly Gardening

Adapted from “Landscaping for Wildlife in the Pacific Northwest” (see wdfw.wa.gov/living/)

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