

Gardening for Butterflies of Alberta

An Introduction

A sunlit panorama of colorful flowers and dancing butterflies is a gardener's daydream. A vision like this can be cultivated in any garden across our province: and it's more attainable and affordable than you think. It doesn't matter if you live downtown, in the suburbs, in the mountains, or across the prairies: we have native insects adapted for every habitat. Our native Alberta butterflies are highly specialized for life here in the cold north. By choosing to nurture native butterflies, your space will provide an amazing habitat for these beautiful creatures, a beneficial boost for you and your garden, and help conserve part of our natural heritage.

We're going to be focusing on native plants here, as they will be the most effective for attracting our native pollinators. Keep in mind that flowers attract a wide variety of allies: wasps, flies, moths, mosquitos, birds, bats, ants and beetles are all pollinators. Adult butterflies are creatures of sunshine and nectar, so some of the flowers in your garden may already be attracting them. However, unlike some other insects, there is a key element that butterflies need for success: **host plants for their larvae**. We often think of caterpillars as pests because they eat our plants; but consider what those little worms turn into (the exact thing the plants need for reproduction). No caterpillars means no butterflies. Now because butterflies are a little choosy about what they'll eat as a baby, this means a little careful planning is required: you need both host plants and flowers (in many cases they are one and the same), all with our native species in mind. Many pollinators, including butterflies, are under threats from a variety of dangers: habitat loss, competition from invasive species, human-spread disease, and pesticides.

Facts about Alberta Butterflies

We don't often think of the North as being particularly rich in insects (...with the notable exception of mosquitoes). However, we actually have impressive diversity: Alberta can claim seasonal representations of around **160 species of butterflies**. Remember to keep an open mind: butterfly diversity is incredible! Some of our littlest butterflies (the *skippers* and *gossamer wings*) are sometimes only 20 mm in wingspan, and resemble moths. Yet our biggest (the *two-tailed swallowtail*) can be almost 4 inches! Many butterflies and moths are visually similar: and some moths and butterflies look like other things too, such as bees, wasps, or hummingbirds: so expect the unexpected, and don't judge a bug by the way it looks. If you want to get technical: genetically, butterflies and moths all belong to the same order: lepidoptera. Within this classification, butterflies themselves represent a "monophyletic" grouping of animals (meaning they're all descended from a common ancestor, and so share characteristics) whereas moths are more diverse.

The butterflies that we see most are the ones that live here year round, and are specifically adapted to life on the eastern slopes and rain shadow of the Rockies: many hibernate as adults (*imago*) or pupa (*chrysalis*). The more closely your yard resembles a patch of Alberta wilderness, the more butterflies you will get. This doesn't mean your yard has to look like an unkempt lot, either - the truth is that native plants are extremely versatile, and will compliment almost any style of gardening. When grown in the generous conditions of the home garden, native plants often produce more numerous flowers than their wild counterparts.

About monarchs: though famous, this species is only an occasional visitor to our province, and is actually rather uncommon in Alberta. Only a few are recorded per year (typically around 20), usually when they accidentally wander or maybe blow across the prairies from Ontario on the wind. This is because Alberta is not part of the Monarch's natural northerly migration path.

Our natural ecology is designed to take care of itself - many creatures depend on a good supply of insects to stay *healthy*! Animals that depend on clean, pesticide-free bugs as a food source include many species of birds, bats, frogs and toads, salamanders, fish, ladybugs, dragonflies, swift foxes, skunks, weasels and dozens more. These creatures will also benefit from what you're doing.

What Native Plants Can Do For You

The major advantage of gardening for butterflies is that in helping them, you are helping your whole world through their ecological interactions. This means:

- healthier plants and less pollution** – for bugs to survive, you'll be **cutting out the chemicals**. You'll need to eliminate pesticides, chemical fertilizers, and herbicides: your entire yard, even the soil, will become bug-friendly!
- save time and water** by choosing well-adapted plants to your regional habitat - they don't need much maintenance to survive here (they've been doing it longer than us!) and are very drought-tolerant. You'll conserve resources.
- provide beautiful moments and well-being** - myriads of studies show that being near nature is proven to increase wellness and even speed healing time for recovery periods in everything from surgery to dentist visits. You'll also feel good about your contribution to helping these beautiful creatures thrive.

Troubled Times for Butterflies

You've heard about the decline of bees, but did you know this applies to butterflies as well? The US Department of Agriculture has stated that one-third of the human diet comes from insect-pollinated plants. According to organizations like the World Wildlife Fund, the Xerxes Society, and Monarch Watch, butterfly populations are dwindling across North America. Factors such as monoculture, pesticides, human-spread disease, habitat loss (to residential and industrial development), emissions, and even car windshields all take their toll. As gardeners, it's hard for us to accept that our lawns and ornamental plants may be less attractive to a butterfly or bee than the vacant lot down the street. But it's true: lawns especially are a dead zone for many native butterflies, basically the same as pavement. However, **you can make a difference! And it's easy**. Organic gardening is a growing trend as we have begun to realize the importance of finding alternatives: indeed, pesticides and herbicides are both relatively new inventions. Only in the last 30 years has it become common to treat our gardens with these products.

Planting a Butterfly Garden:

There are two big tips for making your garden butterfly friendly:

1. Stop using cosmetic chemicals and manufactured additives such as chemical fertilizer, herbicide, and pesticide. Use compost or manure instead: and encourage beneficial insects in the soil. *Pesticides and herbicides cannot be used in or near your insect garden.*
2. Diversify your yard and garden. Butterflies need variety! Debris or compost heaps, and unkempt shrubbery offer sheltered spots for adult butterflies to refuge in, and for caterpillars to form their pupa.

Enhancing life for native butterflies:

Nectar plants are of course a must for adult butterflies, but if you don't provide food for the caterpillars, there won't be any of the beautiful adults visiting your flowers. Bringing plants in that supply the needs for both requires only a little planning. **Consider losing your lawn** (a sterile space, and not very attractive to any kind of wildlife) to make space for some of the following butterfly necessities.

1. **Plant some flowers.** Utilize native species where possible, but some will still come to certain non-natives: especially if they are related to Alberta plants. Big, bright clumps of color are best, such as red, yellow, orange, pink and purple. Hybrid strains with little nectar, such as ornamental roses, lilies, and geraniums, are not good. Choose a variety so that you have blooms throughout the summer. Some excellent **native flowers** you could include:

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| -prairie crocuses | -prairie aster, smooth blue aster |
| -fireweed | -great flowered gaillardia |
| -black-eyed susans | -buffalo bean |
| -giant hyssop | -clematis |
| -bee balm | -willow (their spring catkins are the earliest butterfly food) |
| -western wood lily | -pearl or white/bridal veil yarrow |
| -wild Alberta rose! | -wild raspberry, saskatoon, or other berries |
| -although introduced, dandelions are widespread and an important early nectar source. | |

2. **Plant some "host plants" for the females to lay eggs on.** These are not always attractive ornamentals, but they are what the larvae will need. Each species of butterfly has different preferences, so a few minutes research will familiarize you with the butterflies that are found in your region (Calgary, for instance, has some different butterflies from Edmonton). Some **common Alberta species and their host plants:**

<i>Commas</i>	willow, alder, birch, poplar, gooseberry, currant
<i>Red Admiral and Question Mark</i>	nettles
<i>Painted Lady</i>	hollyhock, thistles
<i>Milbert's Tortoise Shell</i>	nettles
<i>Mourning Cloak</i>	elm, poplar, willow
<i>White Admiral</i>	poplar, birch, hawthorn
<i>Fritillary</i>	violets, knotweed, willow
<i>Blue Gossamer Wings</i>	native legumes, lupines
<i>Sulphurs</i>	legumes, willows, blueberry
<i>Cabbage White, Marble, and other Whites</i>	mustards, broccoli, cabbage
<i>Canadian Tiger Swallowtail</i>	primarily aspen, but also willow, crab apple
<i>Anise Swallowtail</i>	cow parsnip, dill, parsnips

3. Maintain some wet spots with exposed sand or mud. Lots of butterflies perform "puddling," which is a feeding behaviour necessary for obtaining water and extracting minerals from the soil. They will also lick sap from trees at times.

4. Offer the other two things butterflies need: sun and a hibernation tation. Place a few flat stones for a basking spot in the sun. Most of our butterfly species hibernate as adults or pupa, so providing a place for them to do that will drastically increase the habitat quality in your yard. They'll use logs or old stumps, debris piles, and the eaves of your house or a shed: the more abundance of hibernation spots, the better. You can even go upscale and build a "Pollinator Lodge," an attractive alternative.

There are loads of great resources for pollinator gardening online. Just make sure to filter for our specific climate: we have a very long, cold winter in Alberta, with a comparably short growing season. The information you read from a gardener in say, California or New York, will not necessarily apply to us.

If you're looking for an excellent introductory guide to Alberta butterflies, easy to use, and comprehensive, we would absolutely recommend the fantastic "Butterflies of Alberta" by John Acorn (1993). A must-have for any butterfly nut!

Butterfly Wings N' Wishes respectfully acknowledges that we operate on Treaty 6 territory, a traditional gathering place for diverse Indigenous peoples whose histories, languages, and cultures continue to influence our business, our way of life, and our community.

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