

## Resources:

[www.okanaganxeriscape.org](http://www.okanaganxeriscape.org)

[www.beplantwise.ca](http://www.beplantwise.ca)

1. Ollerton, J., Winfree, R., Tarrant, S. 2011. How many flowering plants are pollinated by animals? *Oikos* 120: 321–326.
2. Elle, E. Simon Fraser University. Personal Communication. March 14, 2015.
3. Klein, et al. 2007. Importance of pollinators in changing landscapes for world crops. *Proceedings of the Royal Society of London B* 274: 303–313.
4. The David Suzuki Foundation. Pollinators...What's the Buzz? Accessed on Mar. 4, 2015: [http://www.davidsuzuki.org/what-you-can-do/downloads/Pollinators\\_fact\\_sheet.pdf](http://www.davidsuzuki.org/what-you-can-do/downloads/Pollinators_fact_sheet.pdf)



Master Gardeners Association of B.C. 2014. Attracting Pollinators to Your Garden. Accessed on Mar. 4, 2015: [http://www.mgabc.org/sites/gardenfiles/Gardening%20for%20Pollinators%20Colour\\_I\\_0.pdf](http://www.mgabc.org/sites/gardenfiles/Gardening%20for%20Pollinators%20Colour_I_0.pdf)

For further information on attracting pollinators contact:

Okanagan Similkameen Stewardship Society, BCGovernment, Department of Fisheries and Oceans, your local government, Ducks Unlimited, Okanagan and Similkameen Invasive Species Society, and the Stewardship Centre for BC.

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## Living in Nature Series

# Attracting Pollinators

Do you dream of having or have a garden, flower pots or orchard that you want to see succeed? One very important step should be to attract pollinators, like birds, bees and flies - get these creatures working for you! Here are some tips on inviting them to your neighbourhood!

## What is a pollinator

A pollinator is the 'agent' responsible for plant reproduction, transferring pollen from plant to plant. Almost 90% of flowering plants need pollinators to reproduce<sup>1</sup>. In B.C., pollinators can be any of variety of creatures, including insects such as bees, flies, beetles, butterflies and birds, but the vast majority of pollinators are bees<sup>2</sup>.





## What are the benefits of attracting pollinators?

Pollinators enable the process of pollination, of the transfer of pollen from one flower to another, which is essential for many plants to reproduce.

**Pollinators are needed to create one third of the food we eat** (nuts, fruit, vegetables and herbs)<sup>3</sup>. Plants that require insect pollination are also important sources of food for wildlife. There are many other added benefits of attracting pollinators:

- Many pollinators, such as hover flies and wasps, can help control unwanted pests;
- Attracting a variety of pollinators increases the biological diversity of your garden, yard, acreage, farm and/or community;
- Some native bees tunnel in the soil, thus improving soil quality through nutrient mixing and water movement<sup>4</sup>; and,
- Quality of life! Having flowers around all spring, summer and autumn is a joy, and having beautiful butterflies and colourful native bees visit makes it even more fun.



## It's hard to bee-lieve...

Our native bees do not produce honey in quantities that humans would find fulfilling, they rarely sting, and many are solitary, but others are social, like all of our bumblebees<sup>2</sup>. The production of honey is done by honey bees, which are native to Europe. Native bees are the **MOST COMMON pollinators in Canada** and have been estimated to contribute to the value of Canadian crop yields at 1.2 billion dollars/year<sup>4</sup>.

There are over 800 species of native bees in Canada<sup>4</sup>.

There are an estimated 300-350 species of bees in the Okanagan-Similkameen<sup>2</sup>-we live in a bee **HOT SPOT!**

Bees are looking for plants that can provide them with two things:

1. Nectar: as it is loaded with sugar and provides them with energy, and
2. Pollen: as it provides protein and fats to balance out their diet

## General Tips to Attracting Insect Pollinators (cont'd)

### Have a diversity of plants flowering all season

Important for pollinator insects, in particular, is providing a variety of plants that will offer a progression of blooms throughout the season. Most bees are generalists, feeding on a variety of plants and many species of pollinators arrive at varied times throughout the season, but all require flowers to survive.

### Plant where pollinators will visit

Insect pollinators prefer sun to shade and areas that are not windy. For butterflies, the location is ideal if there is also a source of soil moisture.

### Enhance pollinator habitat

Not only do pollinators require flowers for pollen and nectar, many benefit from additions to the landscape such as:

- Shallow water baths for drinking;
- Muddy areas for nutrients and/or nesting materials gathering; and
- Leave debris (leaves, twigs, logs, shrubs) in the garden or yard for nesting and over-wintering habitat.





## General Tips to Attracting Insect Pollinators (cont'd)

### Choose several colours and shapes of flowers

By choosing a diversity of flowering plants, the chance of attracting a wider range of pollinators increases. Not all pollinators are attracted to the same coloured or shaped flower as not all feeding parts are alike or the same size<sup>5</sup>:

- To attract butterflies and day moths: plant blue, violet and red flowers that are open and deeper and plants that can host their caterpillar stage
- To attract beetles: open bowl shaped flowers
- To attract night moths: plant light coloured (white, cream or pale green) flowers that are strongly sweet scented
- To attract bees: any plant with abundant pollen and nectar, difference in shape and size of flowers, just means difference in the shapes and sizes of bees that you attract<sup>2</sup>
- To attract hummingbirds: plant brightly coloured flowers that are tubular shaped, it's great if they droop or hang



### Plant flowers in clumps

Pollinators benefit from less fragmentation between pollination stops, this means they don't need to do as much flying to find enough food. Large clumps of an excellent food item also mean it's easier for a pollinator to learn how to get resources because they are just learning about one flower type at a time<sup>2</sup>.



## General Tips to Attracting Insect Pollinators

### Avoid using pesticides whenever possible

Most pesticides are non-selective and may actually harm the beneficial insects you are trying to attract<sup>5</sup>. Even low levels of pesticides, especially neonicotinoids, CAN affect bee longevity, memory, navigation and foraging abilities<sup>4</sup>.

### Use local native plants when possible

Native pollinators are essential to the reproduction of native flowering plants and vice versa. Native plants also offer the benefit that they are adapted to our climate and probably require less watering and care. Some introduced plants are great food sources for our pollinators, but it is wise to distinguish between well-behaved introduced species and invasive plant species. It is recommended that you visit your local plant nursery to source native and non-invasive introduced plants that will be beneficial to pollinators. Native plants may, unfortunately, be harder to source, so if you are able to plant a diverse garden that includes 'bee-friendly' non-invasive plants, regardless of origin, you are off to a good start<sup>2</sup>. In the Okanagan, examples of local nurseries that sell native and xeriscape plants include Sagebrush Nursery (Oliver), Grasslands Nursery (Summerland), Wild Blooms (Kelowna) and Dusty Shovels (Vernon). One great way to choose plants that pollinators like is to spend a few minutes at a nursery or garden centre and watch which plants the bees are visiting.





# Examples of Plants that May Attract Insect Pollinators

## Spring:

- Arrowleaf balsamroot\*
- Kinnick kinnick\*
- Larkspur\*
- Mock orange\*
- Nodding onion\*
- Oregon-grape\*
- Red osier dogwood\*
- Sandbar willow (not weeping willows)\*
- Saskatoon\*
- Lilac
- Edible fruit trees (cherry, apricot, plum)



## Summer:

- Yarrow\*
- Showy aster\*
- Ocean spray\*
- Silky lupin\*
- Big basin sage\*
- Brown-eyed susan\*
- Herbs (Oregano spearmint rosemary)
- Lavender
- Sage
- Snowberry (Symphoricarpos)\*



## Autumn:

- Parnsip flowered buckwheat\*
- Rabbit-brush\*
- Snow buckwheat\*
- Goldenrod (solidago)\*
- Hollyhock
- Sedum



\*Native, naturally occurring species in the Okanagan