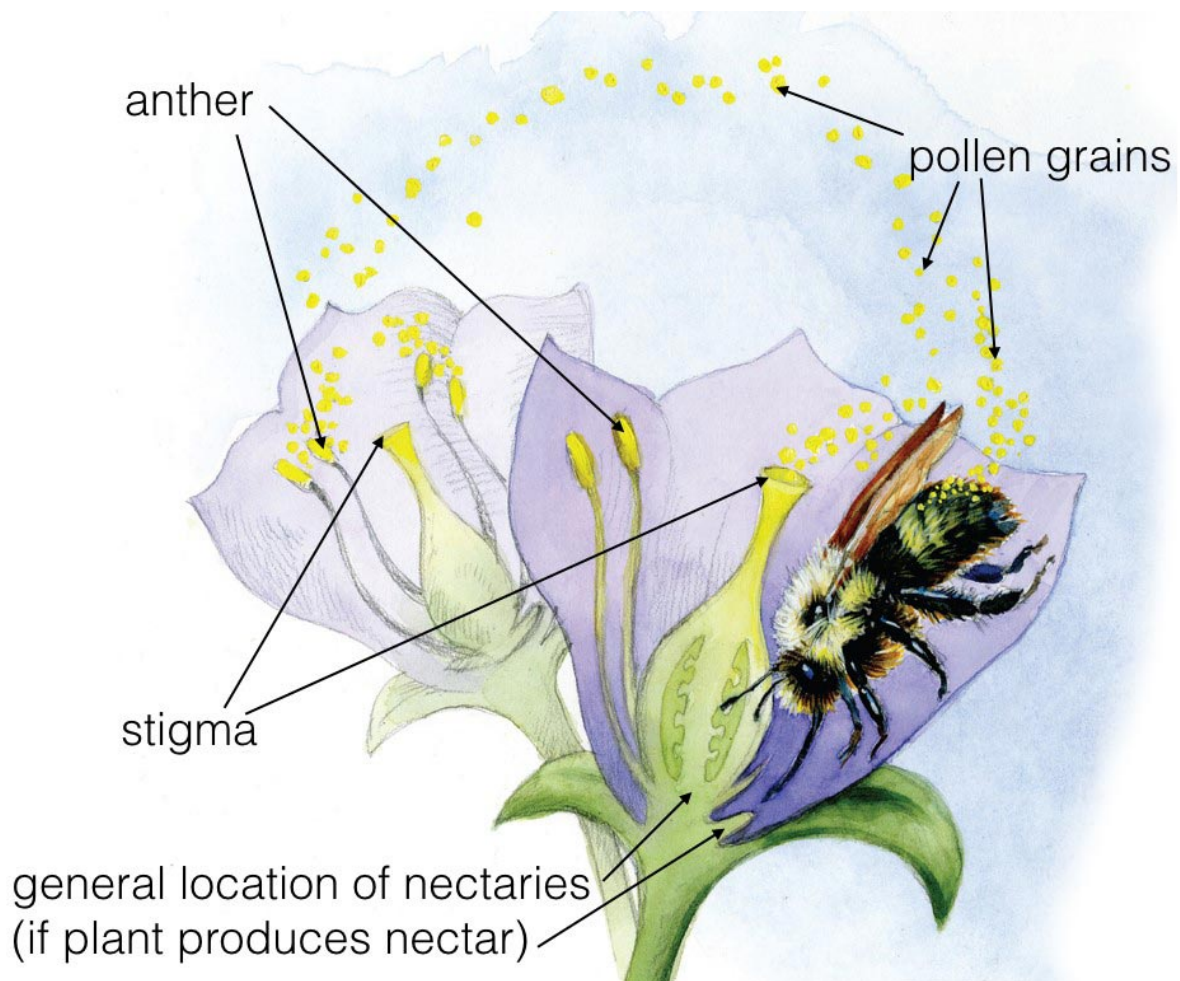


## What Is Pollination?

### The Process

Pollination is a plant process. It's the vital first step that leads to seed formation and food production, if the plant is one that produces food. Plants cannot move, so they rely on wind or water, or animals (mainly insects) that we call pollinators, to transfer pollen from the male parts of flowers to the female parts of flowers. Pollen grains are the male genetic material of a plant, and pollination is all about how pollen is transferred to the female part of flowers.



# About Pollinators

Meet some of the incredible pollinator species native to Canada.

## Meet the Pollinators

Canada is home to an impressive and diverse line-up of pollinators. These include flies, beetles, ants, moths, wasps, hummingbirds, butterflies and bees, which spread pollen from one plant to another as they navigate flowers for food.

## Why Help Pollinators?

Around the world, pollinators are struggling to survive amidst growing threats to their homes and health.

In Canada, we have seen significant reductions in some pollinator species, including bees and butterflies, such as the much loved monarch butterfly.



Photo courtesy Gillian Leitch

# Threats facing pollinators

## **Pollinators are in trouble**

There are many threats facing pollinators today. When meadows become housing developments, pollinators often lose their homes. Pesticides, herbicides and fungicides continue to have drastic effects on pollinating creatures. Climate change is affecting the availability of resources for pollinators and we have spread many pests and diseases around to managed and wild bees.

## **Development versus Diversity**

Biodiversity is key for thriving pollinator ecologies, as we sprawl our communities into land previously occupied by meadows we reduce that diversity drastically. We have buried river systems, drained wetlands, fragmented habitats, maintained manicured lawns and eliminated roadside wildflowers in many areas.

The Karner Blue Butterfly, originally prolific, likely became extirpated in Southern Ontario in the 1990's because of land use practices.

## **Chemicals are Killing Pollinators**

Allowing chemicals to be used on plants before testing their safety on pollinators has resulted in huge losses in honey and native bee populations, as well as a decline in migrating Monarch Butterflies.

Systemic pesticides like neonicotinoids are 7,000 times more toxic to bees than DDT. When they are mixed with herbicides and fungicides they are even more lethal.

## **Hurtful Human Impact**

Climate change is affecting pollinators globally.

Spring emergence of species is becoming mismatched to the flowers that have evolved to attract them.

As we have migrated around the globe, bringing our favorite plants and animals with us, we have also spread pests and diseases that local pollinators have not evolved mechanisms to defend themselves from.



Photo courtesy Gillian Leitch