CANADIAN WILDLIFE FEDERATION

Pollinator Problems

It's hard to imagine a world without seed-bearing plants. For eons, wind, water, hummingbirds, bees, flies and a host of other tiny creatures have performed their duties faithfully and with little fanfare. Yet the survival of many biotic pollinators, is put at risk by some human activities.

Habitat Loss

Our cities, homes and lawns have replaced the natural variety of flowering plants that once made up our landscapes. Crop fields often feature one type of plant, all maturing at the same time, then being harvested and taken away. All the nectar and pollen — food for pollinators — is available only within a short period. This is like having a fridge full of food one day, but the next day it's gone! Without habitat for feeding, mating and nesting, the population and diversity of pollinators drop. Diverse areas, such as provincial, territorial and national parks help to ensure diverse habitats, which help to increase the variety of pollinators.

Toxic Chemicals

Efforts to combat agricultural pests have doubled the use of insecticides and herbicides since 1960. Insecticides, though intended for insect pests, can also kill beneficial insects, and they can stay in the environment for a long time. Even low pesticide levels can affect the memory, navigation and foraging abilities of honey bees. Herbicides, another type of poison aimed at undesired weeds, can destroy food that the pollinators rely on before and after crops have bloomed.

Parasites and Diseases

Bee populations are being hit hard by two small relatives of the spider. The tracheal mite, originally from South America, attacks the wind pipe or trachea of a bee until the bee suffocates The varroa mite, originally from Asia, attaches to the outside of the bee and sucks body fluids from its host, eventually causing death. Scientists are currently studying **colony collapse disorder**, a condition affecting honey bee colonies in North America. The bees fly away from the colony in search of pollen and nectar and are never seen again. Whole colonies are left vacant and no one knows why yet, although a virus is suspected as a potential cause.

Climate Change

Climate change affects all aspects of life on the planet and pollination is no exception. Some insect pollinators are seeing their ranges reduced, leading to a decrease in pollinator diversity and plant diversity. Bloom times of plants or insect activity times may alter in response to changing environmental conditions, so that pollen production of the plant may no longer match up seasonally with the pollinator's activity.

For additional resources visit:

CanadianWildlifeFederation.ca/Education