CEDAR FALLS CONSERVATION AREA

Cedar Falls is a great area for observing many butterflies and insect species throughout the warmer months.

The term **insect** is often used in a very broad sense, but insects are really a particular kind of animal.

Insects are a **class of arthropods that have an exoskeleton and 3 main body parts**. Their compound eyes, antennae and mouth are all on the head, and their three sets of jointed legs and wings are on the thorax.

Insects are **one of the oldest and most diverse classes of animals on earth**. There are over one million classified insects on earth, 18,000 of which live in Canada. Insects typically walk, fly and occasionally swim.

Some believe spiders are insects, when in fact they are arachnids – mainly defined by their eight legs. Other commonly mistaken insects include; centipedes, pill bugs and millipedes.
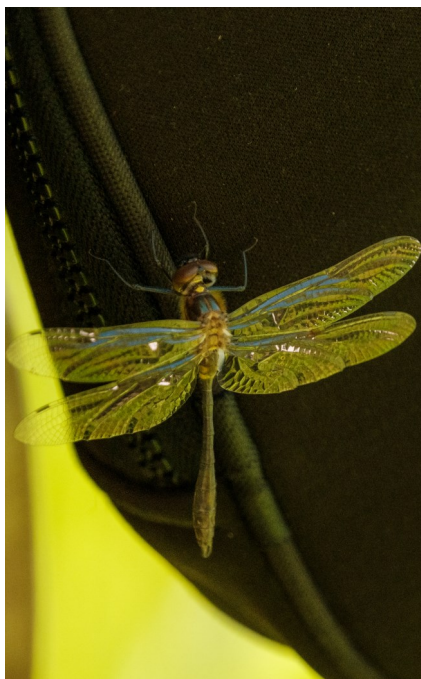
Butterflies are part of the insect class and many can be found in the area, including; White Admiral, Northern Pearly Eye, Northern Wood Nymph and a variety of Fritillary.

Look for the common Eastern Tiger Swallowtail butterfly which can be identified by its yellow wings with black tiger like stripes.

In water you can look for **aquatic insects** such as the Water Boatman, Whirligig Beetle, Skippers and Giant Water Bug.

In late June and July listen for the shrill mating call of Cicada, which sit in the branches of the Jack Pine.

Dragonflies are an ancient group of insects characterized by large multi-faceted eyes, strong transparent wings and an elongated body. They require both terrestrial and freshwater habitat to complete their life-cycle and are often found congregating around shallow waters. Eggs are often laid directly into the water to hatch into aquatic larvae. After a juvenile nymph phase of 1-3 years young dragonflies emerge into their airborne adult form. Adults only live for about 2 months which is spent hunting and mating. Dragonflies are well known as a major predator of mosquitos but often fall prey to birds and frogs.
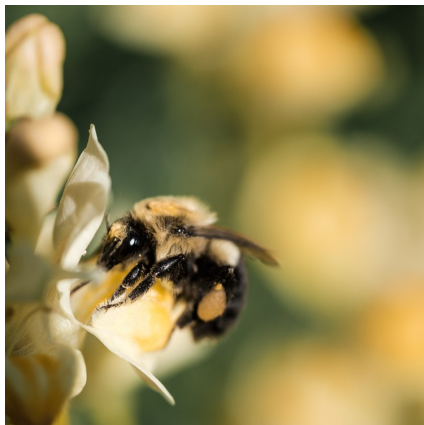
Fireflies are exciting insects to look for in the late summer evenings of late June and July. Fireflies belong to the Lampyridae family of beetles and approximately 180 different species are found in North America.

They produce a green, yellow or orange light, depending on the species. A firefly's light is turned on or off by controlling the air supply to the luminescent organs. The chemical called luciferin is instantly converted to light in the presence of a specific enzyme (luciferase) and oxygen. This reaction is the most efficient conversion of chemical energy to visible light, as there is no release of heat.

Most people find insects to be a pest, and it is true that many **insects can have major negative effects** on our health, farmer's crops and our homes. Some insects can carry diseases that can be transmitted to humans, pets and livestock.

However **insects are also extremely beneficial** to humans. Honey Bees make honey, black-flies pollinate blueberries and wildflowers, Lady Bugs help control pests in our gardens, Dragonflies control mosquito populations, and Ants and Dung Beetles aid in the decomposition process of both plants and animals and aerate the soil.

Whether we love them, hate them or just put up with them, **insects are an essential part of our ecosystem** and the more we get to know them the more we can appreciate their contributions.

Activity/Challenge:

• Name three animals that depend upon insects for their food:

_____   _____   _____

• *True or False* Dragonflies and damselflies begin their life under water?

• *True or False* Insects have 6 legs, 2 body parts, 0-4 wings and antennae?

• Can you find the things below? (remember to look carefully and leave everything safely in its habitat) You can even get a paper and draw what you find!

⇒ A leaf that has been chewed by a caterpillar

⇒ A sign of an insect that lives inside a tree

⇒ Insect eggs (hint, check on the underside of green leaves)

⇒ A female cricket (they have 3 parts to their tail)