

## NATURALISTS' NOTES

### Insects

A garden is a fine place to explore the wonderful variety of insects that live there. They are everywhere. Big inscribed ground beetles scuttle through the soil. Green and red hoppers leap from plants. Butterflies and bees visit the flowers and fruit trees, and wasps build elaborate condos in inconvenient places. Houses also have their share of these creatures. Windowsills collect jeweled flies. Earwigs scurry out of bunches of lettuce and porch lights spotlight a lovely collection of moths and lacewings in the mornings.

Insects are members of a huge group of animals called arthropods, which, among others, includes arachnids such as spiders, myriapods such as millipedes, and crustaceans like lobsters and shrimp. These animals all share jointed limbs, an external exoskeleton and segmented bodies. Arthropods have evolved along a different branch (invertebrates) from humans (vertebrates) but are at the top of their evolutionary line. They inhabit every ecosystem on the planet except the deep oceans and with over 1 million species, they include about 75% of described animals. Insects make up 85% of arthropods and are the most diverse animals on earth. Ecologists estimate you may find about a thousand species in a typical back yard.

Insects have several features that set them apart from the other arthropods. They have 6 legs, 2 compound eyes and several smaller, simple eyes. They were the first to evolve wings. Animals that at first glance seem to be insects may not be on closer inspection. The number of legs is an especially useful sorting tool. Spiders and mites have 8 legs. Centipedes have 15 or more pairs of legs, one pair on each body segment. Millipedes have 2 pairs of legs on each segment. The inappropriately named wood bug is no such thing. It is a crustacean with 7 pairs of legs. And the equally misnamed beach flea that nips your ankles when you walk in the seaweed on Willingdon Beach is also a crustacean with 7 pairs of legs.

Insects help us in many ways. Their pollination of plants makes agriculture possible. They also pollinate food for domesticated animals, which in turn feed us. Without their pollination services we would not have cotton, wool, or linen. They give us honey and silk. Insects are a major sources of food for many birds, fish and small mammals. Even those annoying parasitic and hunting species help keep weeds and animal pests under control. They decompose garbage and litter. Some, like fruitflies, have made major contributions to medical and genetic research.

Many insects are beautiful. When viewed through a lens they reveal fantastic shapes and brilliant colours. If you want to explore this world of tiny animals that share our space, the field guides available at the library are a wonderful source of information.

*Written by Ann Clements for the Malaspina Naturalists Club. Photo by Paul Clements. For more information on local fauna contact the Malaspina Naturalists at 604.485.6134.*