



Arthropods at Windy Acres

- ▶ Windy Acres is home to many different species of arthropods. Some, such as mosquitoes and butterflies are well known to us, others are not. The five different biomes; woodlands, fields, wetlands, boundary and settlement areas, offer an exceptional mix of habitats to support a wide variety of arthropods. There are many common arthropods; beetles, caterpillars, and spiders, that the visitor to Windy Acres will probably never see. However, there are a large number that they will see and hear. Examples of commonly seen arthropods are; butterflies, grasshoppers, bees and beetles.
- ▶ Arthropods can be found living in all different habitats, for example the underbrush at the edges of the fields, in fallen logs in the forested areas, in the wetlands, in shrubs and trees, in the overgrown fields and high in the treetops of the tallest trees. All of the different species living together at Windy Acres form a “Windy Acres ecosystem”. Windy Acres is place for nature, where humans are only visitors.
- ▶ Since Arthropods make up 75% of all species on earth, obviously there are many, many different kinds found at Windy Acres. But what is an Arthropod? Arthropods (Greek language for "joint-legged") are a large group of invertebrate animals, which include insects, arachnids, crustaceans, millipedes, centipedes, and others.

- ▶ Arthropods share a few key internal and external characteristics. The easiest characteristics of arthropods to identify are:
 1. Segmented bodies
 2. Paired, segmented appendages
 3. Bilateral symmetry
 4. A hard, chitinous exoskeleton



A large majority of arthropods belong to the three main groups:

- ▶ Insects
- ▶ Arachnids
- ▶ Crustaceans

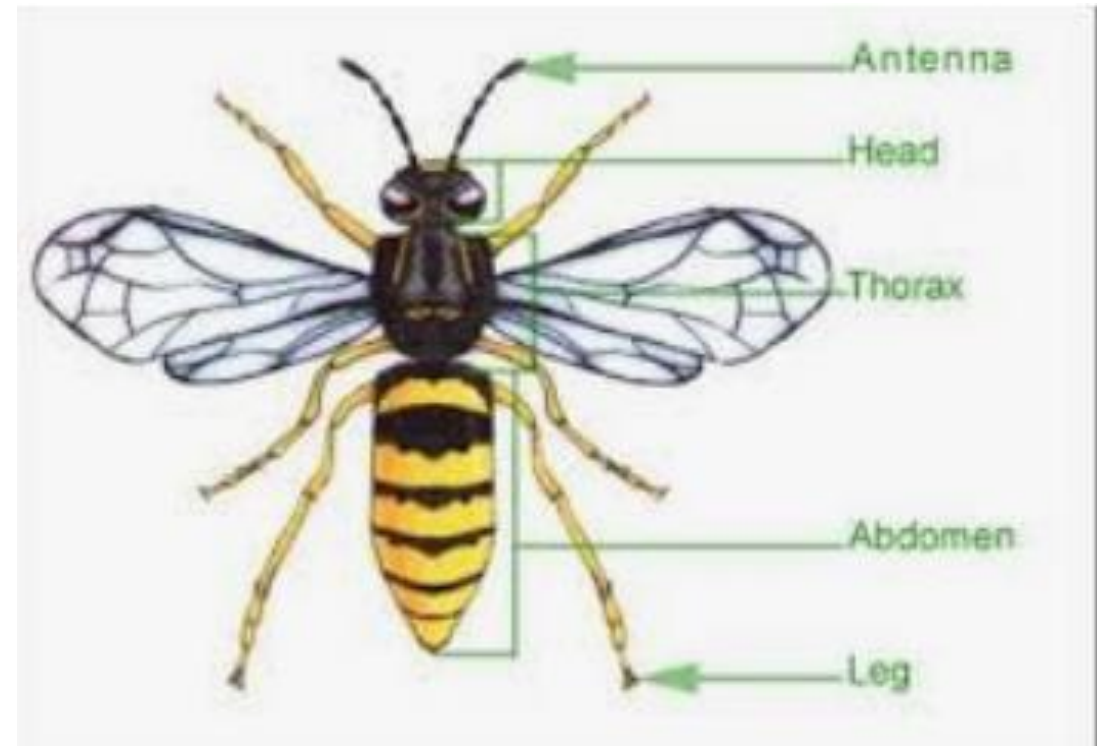
Types of Arthropods

Insects (Subphylum Hexapoda)

Since there are three-quarters of a million insect species, it's best to just look at some of the common ones. They include:

Ants	Aphids	Beetles	Butterflies	Cicadas
Cockroaches	Dragonflies	Fleas	Flies	Grasshoppers
Leaf hoppers	Lice	Mayflies	Praying mantis	Stink bugs
	Silverfishes	Termites	Walking sticks	

► All insects have six legs which are arranged in pairs. They also have two antennae and most of them have two compound eyes. Typically, you will find two pairs of wings on insects, with some of them having only one pair, like flies. A few insects have no wings, like ants, fleas, and lice. Insects are the only invertebrates that can fly.



Arachnids (Subphylum Chelicerata)

Arachnids are eight-legged arthropods with no wings or antennae. Most arachnids live on land; but a few species can be found in fresh and saltwater habitats. The three main orders of arachnids are:

Scorpionida (scorpions)
Acarina (ticks and mites)
Araneae (spiders)

There are over 100,000 species of arachnids. Common ones include:

- ▶ Black widow spider
- ▶ • Brown recluse
- ▶ • Chiggers
- ▶ • Crab spiders
- ▶ • Daddy longlegs
- ▶ • Harvestmen
- ▶ • Mites
- ▶ • Orb weavers
- ▶ Scorpions
- ▶ Spiders
- ▶ Ticks
- ▶ Vinegarroons
- ▶ Whip tailed scorpions
- ▶ Wind scorpions



Crustaceans (Subphylum Crustacea)

The number of species of crustaceans is over 40,000. Some of the common ones include:

- ▶ Barnacles
- ▶ Brine shrimp
- ▶ Crabs
- ▶ Crayfish
- ▶ Fish
- ▶ Lice
- ▶ Horseshoe shrimp
- ▶ Krill
- ▶ Lobsters
- ▶ Seed shrimp
- ▶ Shrimp



All crustaceans have ten legs or more and most of them are found living in water. Most aquatic crustaceans live in salt water; but a few live in lakes and rivers. Woodlice are one of the small numbers of crustaceans who live on land. Crayfish, (*Cambarus bartonii*) are found in the South Branch of the Rockaway Creek which borders Windy Acres.