# Arthropods – Other small animals you may encounter in the garden.

The animals with which we shall be dealing with are all members of the vast assemblage called the invertebrates. This means they have no backbone. There are far more species of these small spineless creatures than there are of the backboned creatures such as the mammals and birds: in fact, there is something in the region of over a million known kinds of insects alone. Although the majority of these invertebrate animals are small, they are not all small. Several insects are large; an Australian stick insect has been recorded at 615 millimetres. Some marine invertebrates are veritable giants – squids with bodies five metres long and arms three times that length, and huge clams weighing much more than a man.

#### Millipedes

Millipedes are generally found in almost any damp situation, never totally dry. They are even beneficial as they feed on decomposing material returning nutrients to the soil. There are some millipedes that feed on living plant matter. For the most, millipedes are encountered under logs and stones, even loose bark. They have slender, cylindrical bodies and they coil up like a spring. While often confused with a Slater, a millipede can always be distinguished as they have many more legs. Millipedes have two pairs of legs on nearly every segment of the body. This feature will also distinguish the millipedes from the centipedes.

CAUTION: relevant to the giant millipede

– this millipede should be handled with
caution as it has the capability of
spraying its defensive spray. Normally
they just lightly exude but when
disturbed will actually squirt under
pressure. It has been recorded that one
researcher while working in the field
was sprayed in the eyes by a giant
millipede. He was rushed to the closest
hospital where they washed out his eyes.
He did suffer from temporary blindness
which lasted for hours.



## Centipedes

Whereas the millipedes are generally rather slow moving plant eaters, the centipedes are carnivorous animals. They move much more quickly than the millipedes and they have a pair of large, poison claws at the sides of the head. Some of the large tropical species are dangerous to man. Centipedes that live right in the soil are generally very long and slender, with many pairs of legs – but never exactly the hundred legs suggested by their name. Their bodies are amazingly flexible, enabling them to double-up and turn round in confined spaces. The last pair of legs trail out behind the body and act like an extra pair of feelers or antennae.

CAUTION: Centipedes have the capability of inflicting a bite with their poison claws at the side of their head. This bite can be extremely painful.



## **Arachnids**

A group of arthropods which the ordinary entomologists are likely to meet are the arachnids. These include the scorpions, spiders, harvestmen, ticks, mites and a few other small creatures. The arachnids are the animals most likely to be confused with the insects, but the distinction between the two groups is really quite clear. Insects all have three pairs of true legs- some larvae have additional stumpy legs at the back, but the arachnids have four pairs of walking legs. In addition, the arachnids never have antennae and their bodies do not show the three divisions — head, thorax and abdomen. No arachnid ever has wings nor has any other non-insect invertebrate.

#### **Scorpions**

Scorpions mainly feed on other arthropods, though some of the larger species have been recorded as taking lizards and small snakes on occasions; cannibalism occurs occasionally. The scorpion uses it jaws to break the prey up into particles, which are then packed into and held between the bottom segments of the palps. Digestive juices from the mouth are then poured onto them. This converts the food into a liquid, which the scorpion squeezes out with the bottom segments of its jaws and swallows. The sucked-out remains of the prey are then rejected.

Scorpions are found mainly in tropical and sub-tropical regions. They are easily recognized by the long 'tail like appendage' which is tipped by a curved sting and by the claws or pedipalps.

Caution: The stings of some species are extremely painful.



## **Spiders**

Spiders, in which the body is generally quite clearly divided into two sections, are probably among the most disliked animals in the world but they are at the same time among the most fascinating. They are, for example among the very few animals that make traps to catch their food and their silken webs are some of the most intricate of all animal constructions. Not all webs are alike, however, each species builds to its own pattern and each web is designed to catch a particular kind of prey; some catch flying insects while others trap crawling species. Some spiders make no webs at all; they simply chase after their prey or lie in ambush for it. One group, known as the jumping spiders, creep up on their prey like a cat the pounce when they are within range.

With the exception of one family, it is true to say that all spiders are venomous but only a tiny proportion of them are capable of actually piercing human skin. Of those that can, many produce a painful bite but only very small proportions are actually dangerous to humans. There is no relationship between size and effect; for example, the bite of some of the largest tarantulas – though painful – produces few other effects. Deaths from spider bites are in fact quite rare and mainly occur in small children. Overall, they are much less harmful than scorpions, though the latter – being mainly nocturnal – are encountered less often than spiders.

Caution: some spiders can bite and there are records of narcosis associated with some species.



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