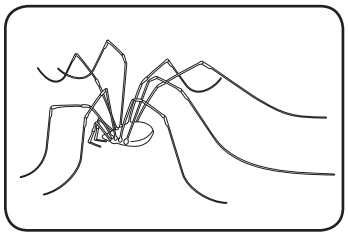
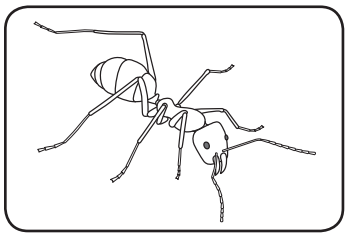
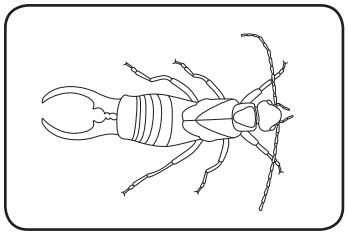
Grassland Insect identification



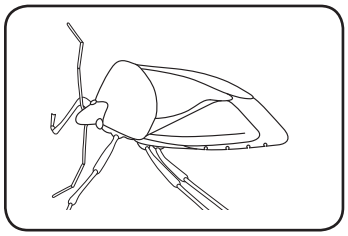
Harvestman. Many people see the similarity of form and think that the harvestman, perhaps better known as the grand-daddy longlegs, is a kind of spider. Spiders have two body segments (see image above). The cephalothorax is the fused head and thorax regions, which is distinct from the abdomen. Harvestmen essentially have an oval body without the separation (see photo right). They also do not produce silk or a web. They are not true spiders.



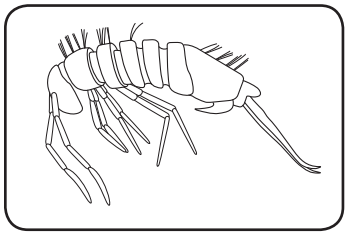
Ants. Ants form colonies that range in size from a few dozen predatory individuals living in small natural cavities to highly organised colonies consisting of millions of individuals. These larger colonies consist mostly of sterile wingless females forming castes of “workers”, “soldiers”, or other specialised groups. Nearly all ant colonies also have some fertile males called “drones” and one or more fertile females called “queens”. The colonies are sometimes described as superorganisms because the ants appear to operate as a unified entity, collectively working together to support the colony.



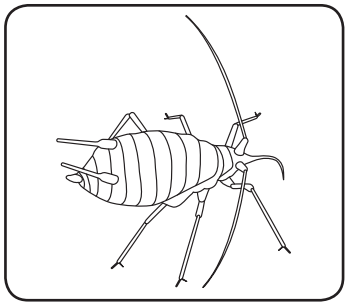
Earwigs. Earwigs are nocturnal; they often hide in small, moist crevices during the day, and are active at night, feeding on a wide variety of insects and plants. Earwigs undergo an average of 5 molts over the course of a year, their average life expectancy, before they become adults. Many earwig species display maternal care, which is uncommon among insects. Female earwigs are known to take care of their eggs, and even after they have hatched as nymphs will continue to watch over offspring until their second molt.



Leaf bugs. Also known as grass bugs and capsid bugs, there are over 10,000 known species and new ones constantly being described. They are small, terrestrial insects, usually oval-shaped or elongate and measuring less than 12 millimetres (0.5 in) in length. Some are brightly coloured, others drab or dark. Some are ant mimics at certain stages of life. They are agricultural pests piercing plant tissues to feed on the juices.



Spring tails. Springtails are no longer considered insects because they have internal mouthparts rather than external mouthparts. They are normally less than 6 mm long, have six or fewer abdominal segments. Most species have an abdominal, tail-like appendage that is folded beneath the body to be used for jumping when the animal is threatened. It is held under tension and when released, snaps out, flinging the springtail into the air. All of this takes place in as little as 18 milliseconds.



Aphids. Commonly know as greenfly, blackfly or whitefly are small sap sucking insects. They are among the most destructive insect pests on cultivated plants in temperate regions. Aphids have soft bodies, which may be green, black, brown, pink or almost colourless. They feed themselves through sucking mouthparts enclosed in a sheath formed from modifications of the insect mouthparts. They have long, thin legs and two-jointed, two-clawed. Most aphids have a pair of abdominal tubes through which they exude droplets of defensive fluid called honeydew. Some species of ants “farm” aphids, protecting them in order to eat the honeydew. This is a “mutualistic relationship”.

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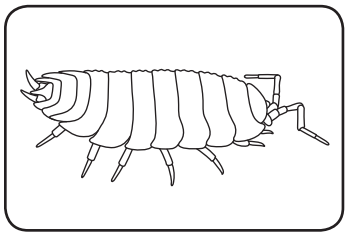
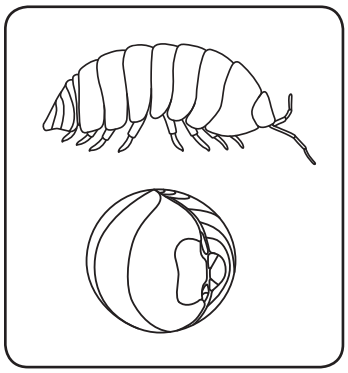
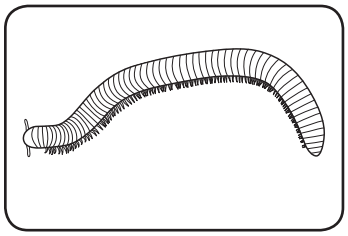


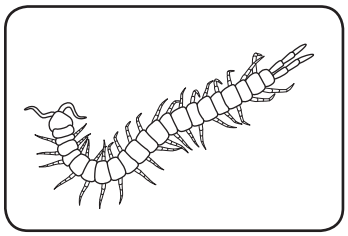
Woodlice. The woodlouse has a shell-like exoskeleton, which it must progressively shed as it grows. The moult takes place in two stages; the back half is lost first, followed two or three days later by the front. A female woodlouse will keep fertilised eggs on the underside of her body until they hatch into small, white offspring. The mother then appears to “give birth” to her offspring. Woodlice are not generally regarded as a serious household pest as they do not spread disease and do not damage wood or structures; however, their presence can indicate dampness problems



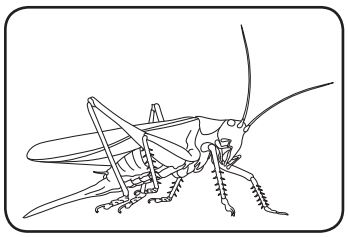
Pillbugs. These are a member of the woodlouse family, they are approximately the same size and live in very similar habitats, they roll up into a ball for defence. Another creature that is often confused with the pillbug, is the pill millipede. The pill millipede has thirteen body segments, whereas the woodlouse has eleven. In addition, pill millipedes are smoother, and resemble normal millipedes in overall colouring and the shape of the segments. Pill millipedes can be distinguished from woodlice on the basis of having two pairs of legs per body segment instead of one pair.



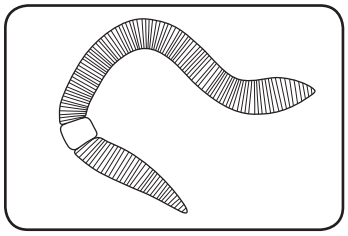
Millipedes. Most millipedes have very elongated cylindrical bodies, although some are flattened, while pill millipedes are shorter and can roll into a ball, like a pillbug. Common species have between 36 and 400 legs. Unlike centipedes and other similar animals, each segment bears two pairs of legs, rather than just one. This is because each is actually formed by the fusion of two embryonic segments. Due to their lack of speed and their inability to bite or sting, millipedes’ primary defense mechanism is to curl into a tight coil — protecting their delicate legs inside an armored body exterior.



Centipedes. Despite the name, centipedes can have a varying number of legs from under 20 to over 300. Centipedes have an odd number of pairs of legs, e.g. 15 or 17 pairs of legs (30 or 34 legs) but never 16 pairs (32 legs). Centipedes have a rounded or flattened head with a pair of antennae at the forward margin, they also have a pair of elongated mandibles. Behind the head, the body consists of fifteen or more segments most bearing a single pair of legs.



Grasshoppers. Grasshoppers have antennae that are almost always shorter than their body. They also have pinchers or mandibles that cut and tear off food. Those species that make easily heard noises usually do so by rubbing the hind legs against the forewings or abdomen, or by snapping the wings in flight. The hind legs are typically long and strong, fitted for leaping. Grasshoppers prefer to eat grasses, leaves and cereal crops. Some will tend to eat from a single host plant, while others will eat from a variety of sources throughout the day.



Earth worms. The basic body plan of an earthworm is a tube, the digestive system, within a tube, the muscular slimy, moist outer body. Earthworms form the base of many food chains. They are preyed upon by many species of birds, snakes, mammals (e.g. foxes, hedgehogs, moles) and invertebrates (e.g. beetles, snails, slugs).

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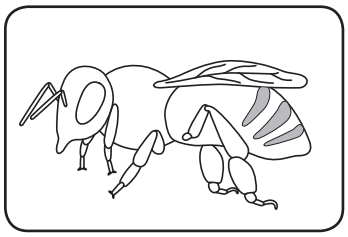
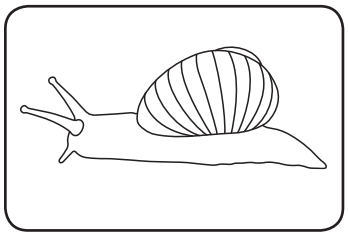
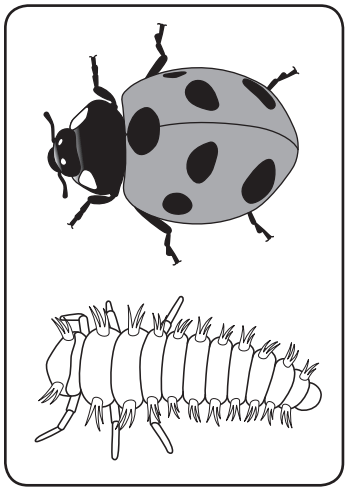


Honey Bees. Bees survive winter as a colony, the queen begins egg laying in mid to late winter, to prepare for spring. She is the only fertile female, and deposits all the eggs from which the other bees are produced. Both workers and queens are fed “royal jelly” during the first three days of the larval stage. Then workers are switched to a diet of pollen and nectar or diluted honey, while those intended for queens will continue to receive royal jelly. Worker bees have a stinger with which they can sting to defend the hive, but unlike other bees and even unlike the queens of their own species, the stinger is barbed.



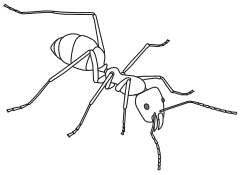
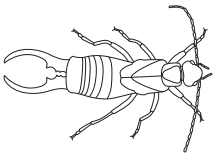
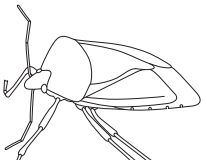
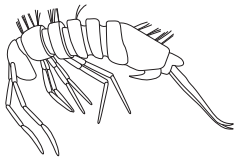
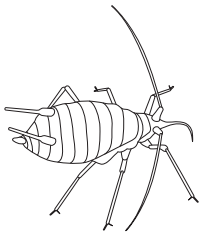
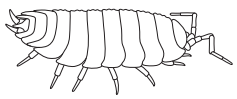
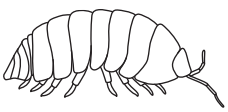
Snails. Snails can retract entirely into the shell when inactive or threatened. During dry and cold weather, the aperture of the shell is sealed with a thin membrane of dried mucus which helps the snail retain moisture. During times of activity the head and foot emerge. The head has four tentacles that can be retracted into the head. The upper two have eye-like light sensors, and the lower smaller two are tactile and olfactory sensory structures. The mouth is located beneath the tentacles, it is a minutely toothed ribbon, that is used for scraping or cutting food particles.



Ladybird and nymph. Also known as Ladybugs are considered useful insects as many species feed on aphids or scale insects, which are pests in gardens, agricultural fields, orchards. Ladybirds also require a source of pollen for food and are attracted to specific types of plants such as mustard and clover. Ladybirds are brightly colored to ward away potential predators and are also known to spray a toxin that is venomous to certain mammals and other insects when threatened.

Grassland Insect tally sheet

Put a ✓ in the tally box for each creature collected then add up the totals.

		Tally	*Total*
	Harvestman		
Ant			
	Earwig		
Leaf bug			
	Springtail		
Aphid			
	woodlouse		
Pillbugs			
			

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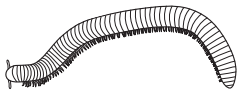
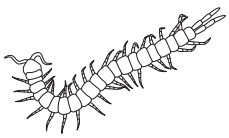
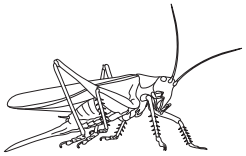
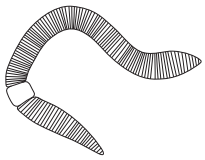
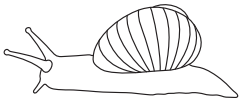
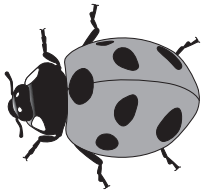
	Millipede		
Centipede			
	Grasshopper		
Earth worm			
	Honey bee		
Snail			
	Ladybird		
Ladybird nymph