

Centipedes, millipedes & woodlice

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Centipedes are familiar garden visitors that often take the blame for damage to many plants. However, they are useful predators. Millipedes and woodlice do little damage.

Q Are these creatures garden pests?

A Centipedes are not garden pests at all. They do not attack plants, feeding instead on small soil animals and slugs. Both millipedes and woodlice feed mainly on decaying plant material, but they can also damage seedlings, bedding plants, peas, beans and carrots, for example, and soft tissues, such as cucumber plants, strawberry fruits and tomatoes. They usually prefer to enlarge wounds already inflicted by slugs, wireworms or other pests, in potatoes and bulbs, for example. Their mouthparts aren't strong enough to deal with undamaged bulbs and tubers.

Q How do I know if they are actually causing the damage?

A There is no way to be sure. Woodlice and millipedes tend to nibble stems, aerial roots and growing points. If you have controlled slugs, snails and wireworms and only soft or young tissue has been attacked, these pests may be to blame.

If firm, older material has been damaged, look for pests like cutworms, wireworms, chafer grubs, leatherjackets and caterpillars. Slime trails are tell-tale signs of slugs or snails.

Q Can they be mistaken for anything else?

A They are pretty distinctive. However, millipedes and centipedes, 2-6cm long, could be mistaken for wireworms (1-2cm long, larvae of the click beetle). However, this pest has legs only at the end near the head.

They can also be confused with symphylids. These are small (9mm) and pale, a bit like young millipedes or centipedes. They are very mobile and are sometimes associated with seedling damage in greenhouses and, very occasionally, in outdoor crops. Typically they strip the root hairs from seedlings, leaving a bare root with blackened spots. They are dealt with in the same way as millipedes and woodlice.

The little springtails, leaping insects found in soil and plant debris, could be mistaken for young millipedes or centipedes. However, these are typical insects with three pairs of legs, and they are harmless.

Q Why do they always seem to occur in the same places?

A They all like damp and dark places. Woodlice are actually related to seaside crabs, and don't move far from damp spots.

Shady damp gardens with plenty of cover under furniture, mulch, containers and plant

material are ideal for woodlice and millipedes. These conditions are hard to modify, and high populations can build up in suitable gardens.

In cold weather, woodlice shelter deep in the soil, but in more suitable conditions they will climb trees and walls, entering buildings. In fact, they often move into greenhouses and sheds to escape autumn frosts. Compost heaps are also favourite hiding places of woodlice. The warmth, moisture and vegetable matter are ideal for them. Woodlice help in breaking down material. You can protect your plants and help your compost by collecting them where they are not wanted and releasing them in your compost.

Organic mulches, of bark or cocoa shells for example, are likely to provide ideal hiding places for millipedes and woodlice. Heated greenhouses are favoured. Some species are only found in greenhouses.

Q How do I tell centipedes and millipedes apart?

A British species of centipede are golden or chestnut brown in colour, move rapidly when disturbed and have one pair of legs for each body segment. Millipedes move slowly and have two pairs of legs to the majority of body segments. Most of the 48 different kinds of millipede are

divided into two groups: the flat and pill millipedes. Flat millipedes have flattened bodies, while the pill millipedes have a rounded, snake-like shape, and move in a similar way to snakes. The flat millipedes, which are greyish-brown in colour, are similar in appearance to centipedes, but have two pairs of legs for each body segment. Another way to tell them apart is to touch them. Centipedes run away, whereas millipedes curl up.

Q Are there any similarities between millipedes and woodlice?

A The pill millipedes can look very like the grey-coloured pillbug-type of woodlouse, but the snake millipede is the one that causes damage to plants most often. The spotted snake millipede (*Blaniulus guttulata*) is about 18mm long, creamy-white in colour with a row of orange-red dots along either side of its body. Both types of millipede can roll themselves into a ball when disturbed. Another distinguishing point is that woodlice have only seven pairs of legs.

Q Where are millipedes most likely to be found?

A Millipedes are most likely to be found on the surface of the soil, except in dry weather when they will burrow further down into damp soil. Female millipedes lay eggs in summer, often in nests. These hatch into larvae which, after several intermediate stages, reach adulthood, the whole cycle taking a year or more.

In greenhouses, the glasshouse millipede (*Oxidus gracilis*) is sometimes found. It is an introduced species that only thrives in heated greenhouses.

Q Can you tell me more about woodlice?

A There are about 42 different kinds, some of them introduced. In greenhouses they breed all year around, but only in the summer outdoors. The eggs are incubated in a pouch under their mother's body. There can be as many as 200 young when they hatch after three weeks, but most die in the first two months. The survivors can live for several years. They start out as tiny versions of the adult, and get bigger and bigger the longer they live.

Q Are there any natural enemies of millipedes and woodlice?

A Natural populations of millipedes and woodlice are kept in balance by predators such as toads and ground beetles. Millipedes are also the natural food of starlings, frogs and hedgehogs, while woodlice are eaten by shrews, centipedes and some spiders. Most woodlice die soon after birth, probably due to the activity of these predators.

Q Should I be worried about damage from millipedes and woodlice?

A Neither millipedes nor woodlice do much damage to gardens as a whole. In fact, they do a lot of good, helping to break down dead plants and increasing soil fertility. However, there may be instances, when raising seedlings for example, when damage can be quite extensive and control measures are worthwhile. Woodlice are more likely to be damaging in greenhouses.

Q How can I discourage millipedes and woodlice?

A Good garden hygiene - the

removal of plant debris, pots, seed trays and regular sweeping of areas housing pots - will discourage both these creatures. Keep composting areas away from growing areas. Repointing walls and paving and mending damaged wooden structures will help prevent them hiding in these.

Indoors, the warm, parched atmosphere of the home will be too dry for them to survive, and draught-excluder strips around doors and windows should prevent their entry. If problems persist, apply the recommended pesticides to doorways, water-pipe outlets and airbricks to catch them as they enter. By clearing up debris around the garden you'll also help to control slugs, snails and other pests.

Q What chemicals are available to deal with millipedes and woodlice?

A Dusts containing bendiocarb or deltamethrin, can be applied to seedlings if early signs of damage are seen.

However, when conditions suit woodlice and millipedes, they will soon reinvade, unless you can make the environment less congenial to them.

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