



Factsheet no.10

INSECTS: FRIENDS AND FOES

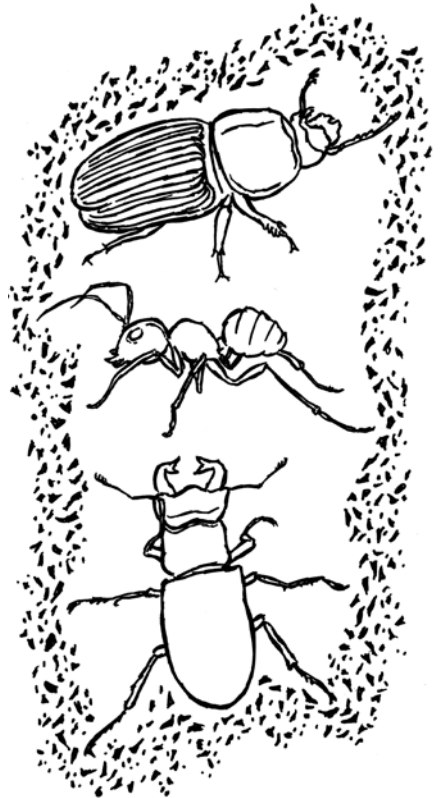
Don't assume all insects are pests for your plants. There are many insects which are useful predators in your garden or allotment and should be positively encouraged.

Natural pest control

Creating a mix of habitats with mainly native plants, trees and shrubs will encourage a wide range of wildlife pest controllers into the garden. Like other wildlife they need suitable places to feed, shelter and reproduce.

Encouraging beneficial insects

Many beneficial insects can be encouraged by incorporating specific habitats into the garden or allotment. Ground cover is important and some piles of dead wood and leafmould are useful for any predators that hibernate over the winter months.



Avoid insecticides

Insecticides are a range of pesticides designed to be toxic to insects. In many cases they will harm beneficial insects as well as pests, preventing natural cycles of predation. Wildlife gardening techniques seek to balance the numbers of predators and pests to ensure that pests do not cause unlimited damage.

Beneficial insects

Aphids (blackfly and greenfly) are one of the most common plant pests and many insect friends eat them in large quantities as larvae and in some cases as adults.

Hoverfly larvae eat up to 50 aphids a day. Many thousands are eaten over a growing season by many of the 100 species of hoverfly.

Adult hoverflies look similar to wasps and can be seen hovering over plants collecting nectar. They will also eat aphids, small caterpillars and fruit tree spider mites.

Lacewing larvae consume large numbers of aphids and adult lacewings will also eat them. Larvae are small and active and have many bristles. In addition to aphids the larvae will also eat mites, scale insects, leafhoppers and small caterpillars. Adults are usually green with fine lacy wings.

Ladybird larvae will also eat large quantities of aphids whilst developing. Larvae are slate grey with orange markings and tapering segmented bodies. Adults are familiar to most gardeners – generally red with black markings although some species are yellow with black markings. They hibernate during the winter and it is useful to leave some dry plant debris around during the autumn.

A patch of nettles will provide an early crop of aphids for the ladybirds: the nettle aphids will not harm other plants but will help to get the ladybird population established. Adult ladybirds will also eat scale insects, mealybugs, small caterpillars and mites.

Centipedes are predators of slugs and insect pests. Learn to tell the difference between them and millipedes (which can be a pest, although they are useful in the compost heap): centipedes have only one set of legs per body segment. They need ground cover as shelter from their own predators during the day.



Beetles: ground beetles and rove beetles are useful pest controllers eating slugs, eelworms, cutworms, leatherjackets and the eggs and larvae of cabbage and carrot root flies.

They require ground cover during the day. Growing a green manure such as alfalfa 'Lucerne' (*Medicago sativa*) or rye (*Secale cereale*) will provide suitable moist and shady conditions.

The **anthocrid bug** prefers more of a woodland habitat and eats aphids, scale insects, mites, blossom weevil larvae, caterpillars and capsid bugs.

Correct identification is vital to ensure that any pest control measures are not affecting populations of beneficial insects. It is worth investing in a good, illustrated guide to pests in gardens and allotments.



Homes for your insect friends

You can make a **lacewing** or **ladybird hotel** using a large plastic bottle. Cut the bottom off the bottle. Fill the bottle with rolled up corrugated cardboard or straw or bamboo sticks to create hollow spaces for the insects to shelter in. Secure the card with wire or string across the bottom of the bottle. Hang the bottle upright from a tree or post. Keep the cap on to stop rain getting in; the lacewings or ladybirds will enter from underneath.



Insect pests

Aphids (greenfly and blackfly) are a very common pest. They suck the sap of a plant, weakening it and causing distortion or stunted growth. They also secrete a sticky honeydew which allows the growth of black sooty moulds.

Control of aphids can be helped by using companion planting techniques to encourage greater predator numbers. They can be removed by hand or you can spray with soapy water or make a garlic spray. If an infestation is particularly severe there are biological controls available to buy, such as *Aphidius*, an insect which lays its eggs in the immature aphids destroying them in the process. Ants are associated with aphids as they 'farm' them, feeding from their honeydew secretion and even moving them from plant to plant. **Caterpillars** are the larval stage of butterflies and moths. Most species feed on the leaves of plants where adults have laid eggs. They cause most problems for plants in the Brassica family (cabbage, kale etc).

There are many predators of caterpillars including insects and birds and other wildlife. They can be further controlled by removing eggs and larvae from plants by hand.

Wireworms are the larvae of the click beetle and make distinctive small holes in potatoes and carrots. They live in the soil and can be trapped by burying an old potato as bait, then digging it up a few days later for disposal.

Leatherjackets are crane fly larvae and live in the soil eating any plant matter available. They can be exposed by digging over the soil and either squashed or left for birds and other predators such as ground beetles to eat them.

Cutworms also live below the soil surface and feed on the base of plants. Hoeing an area of about a metre around affected plants will expose them.

Earwigs are useful as predators of caterpillars, aphids and insect eggs. However they can cause damage to the emerging flowers of dahlias and chrysanthemums. They can be trapped by filling an upturned flower pot with straw and mounting it on a cane in the affected area. They will hid in the straw during daylight and can be moved in the pot to a less sensitive spot.