

# Larder Beetles

## Description

**Order:** Coleoptera ('sheath wings')

### Characteristics:

Forewings hard and leathery, meeting along mid-line of dorsal surface; hind-wings membranous, sometimes lacking; biting mouthparts; well-developed thorax; complete metamorphosis with egg, larval, pupal and adult stages.

**Family:** Dermestidae (skin feeders)

### Species characteristics:

**Larder Beetle (Bacon Beetle) (*Dermestes lardarius*)**

Adults, 7-9mm long, body, oval-shaped and densely covered with round scale-like hairs; broad light band crosses elytra, with three black spots on each side.

**Hide Beetle (Leather Beetle) (*Dermestes maculatus*)**

Adults, 5.5-10mm long; elytra: uniformly coloured brown/black; body, oval-shaped and densely covered with round scale-like hairs; inner apex of each elytron produced backwards into a fine point.

## Distribution

The *Dermestes* beetles are common where animal products are handled, for example hide, skin, bone, dried meat, fish meal and dog biscuit manufacturing premises. Where infestations occur in domestic premises, they are often encountered in larders, hence their common name. Alternatively they may be found feeding on dead rodents or birds, in attics or under-floor spaces.



## Significance

*Dermestes* literally means 'skin-eaters', and this is precisely what the beetles do. They play only a very minor role in disease transmission, although they may act as mechanical vectors of anthrax. They will breed on any animal protein and can be a serious pest in hide warehouses, tanneries, milk-processing plants and other premises where animal products are processed.

Damage is caused by the larvae which bore holes in materials, either as they feed or in order to pupate. The soft sapwood of wooden structures are preferred pupation sites. They will also excavate plaster, lead and tin, but not zinc or aluminium. Similar damage to stored commodities may also be caused by the adult beetles.

## General Life-Cycle of *Dermestes* species

The females lay up to 200 eggs on materials such as hides and skins which are suitable for larval development. They are white, 2mm in length and often laid in the crevices of commodities. The larvae, which hatch out in about a week, are dark brown, hairy and feed on almost any dry or decomposing animal material. They will occasionally feed on vegetable matter. They are very active, and will avoid light, frequently boring into commodities to do so. If disturbed they will curl up and feign death.

There are usually 5 or 6 moults and the full grown larva is 10-15mm in length. When mature the larvae often leave the foodstuff, and will excavate holes in hard, inedible material in order to pupate. The burrows created for this purpose may be up to 300mm long. Alternatively, pupation takes place deep inside the infested commodity, or if the larvae are forced to pupate in the open they do so inside the last larval skin. The speed of larval development depends upon conditions and may extend beyond a year. Generally the pupal stage is completed in 2-4 weeks and the full cycle in 2-12 months.

## Control

### Assessment of infestations

The first step in control is to trace the source of infestation. This is usually obvious although in domestic premises it may be obscure and found to be a dead animal that has passed unnoticed or an old bird's nest.

### a) Hygiene/management

All sources of infestation should be removed and burnt if possible. Routine surveillance and regular cleaning are also important.

### b) Insecticidal control

Thorough surface spray treatments with residual activity are vital where infestations are extensive.

## Glossary of terms

*Elytra*: Hardened forewings of the beetle.