



# Rentokil

The experts in property care

Produced by Research & Development

INFORMATION LEAFLET

Number 2

## DEATH WATCH BEETLE

The **Death Watch Beetle**, *Xestobium rufovillosum*, is an insect native to Britain. Its preference for attacking seasoned oak timbers makes it one of the few insects which have been well-known for several hundred years. Its unusual common name is derived from the adult beetle's habit of tapping on wood during the mating season. To the superstitious occupants of old sick rooms, this mysterious tapping noise was greeted with foreboding! Today, the death watch beetle is essentially a pest of old buildings and is rarely found in structures built since the early 20<sup>th</sup> Century.

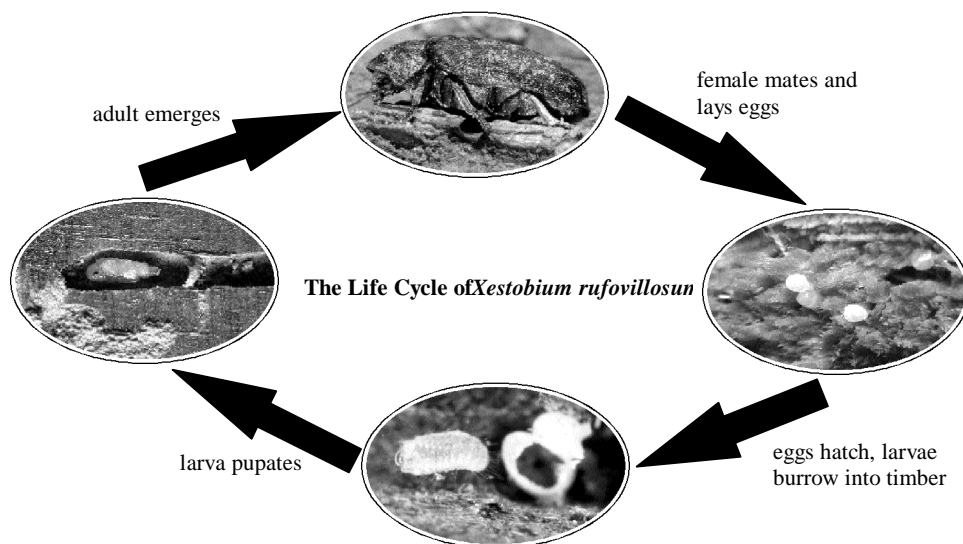
In its natural environment, the insect lives in the dead wood of several species of hardwood trees where fungal decay has set in. A common situation is the dead wood in the trunk or crown of pollard willows. Oak, ash and sweet chestnut are also commonly infested.

Within buildings, the insect occurs almost entirely in old hardwood, particularly large dimensioned oak timbers which have been softened by fungal decay. Only rarely does the insect occur in softwood timbers.

The adult beetle is relatively inactive and does not normally fly. It is generally believed, therefore, that the majority of attacks were already present in timbers used in the original structure. Few new infestations take place today.

### Life cycle

There are four distinct stages in the life cycle: egg, larva, pupa and adult. Of these, it is the **larval** stage that causes the extensive damage within wood.

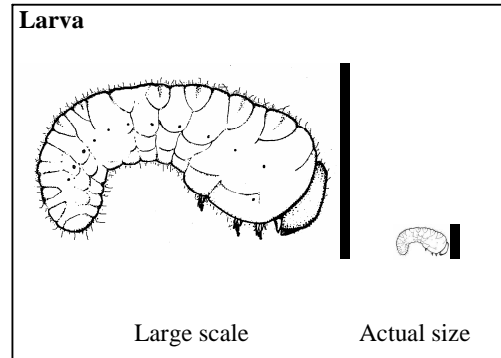


## Egg

After mating, the adult female lays her eggs in small clusters, usually of three or four, in cracks or on the surface of rough wood. They are sticky when first laid and adhere to each other. The eggs are whitish, oval and approximately 0.6mm long. Each female lays between 40 and 60 eggs which develop and hatch in two to five weeks.

## Larva

The young larva walks away from its egg before burrowing into the wood. The body is creamy-white, strongly hook-shaped and covered with erect, golden hairs. As it bores through the timber, the larva increases in size, growing to 10mm long when fully developed. The duration of its development varies considerably with prevalent conditions and may be up to 10 years. A general average is closer to five years. The frass or bore-dust left in the larval tunnels contains large, bun-like faecal pellets characteristic of this pest.



## Pupa

During the summer in which it reaches full size, the larva bores its way almost to the surface of the wood. Here it enlarges a gallery to form a special pupal chamber within which it changes into a pupa. Externally, this stage of the insect's life cycle appears an inactive one, but internally the insect is being transformed into an adult. The pupa is milky-white at first, but then darkens progressively.

## Adult

The adult beetle casts its pupal skin and bites its way out of the pupal chamber between late March and early June. It leaves a "flight" or "exit" hole approximately 3mm in diameter in the surface of the timber. The newly-emerged adults are 5 to 7mm in length, dark reddish-brown with a pattern of yellowish, scale-like hairs on the upper body and wing cases. The adults mate and the life cycle begins again. The life cycle, from one adult generation to the next, may take four, five or even 10 years to complete, depending on the quality of wood and prevailing environmental conditions. The average is about five years. Because the life cycle is so long and the adult rarely flies, an infestation is relatively slow to spread.

