

# **Oak Processionary Moth (Thaumetopoea processionea)**

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Most tree wardens will probably have heard of this nasty little beastly that was first discovered in West London in 2006. It has come to public attention in the national media due to the health problems caused by the numerous toxic bristles, easily dislodged on the caterpillar of this moth.

The adult moth (Family Thaumetopoeidae – processionary moths, of which there are few species) looks pretty bland, greyish – white in colour, camouflaging well on Oak trunks and with a wing span of about 1.25 in. The natural range for this moth is central and southern Europe, where thankfully it has natural predators such as birds, beetles and parasites. Partly due to climate change, this pest is well established in the Low Countries, Germany and even as far north as southern Sweden where there are no natural predators.

How did this moth arrive in this country, especially as we have a natural barrier, the English Channel? One likely and plausible theory is that it (i.e. the eggs) arrived on imported Oak trees from Tuscany in Italy. The trees were planted on a housing development site before infecting the nearby Royal Botanic Gardens at Kew. Tony Kirkham, a name very familiar to Surrey tree wardens, was at the forefront of dealing with this infestation, and helping to contain it.

Each year a single generation is produced. The moth lays its eggs in clusters on small branches of oak trees in late summer, where the eggs overwinter. These hatch in the spring, and the larvae or caterpillars when mature have very long white hairs and thousands of short hairs that contain an urticating toxin, called thaumetopoein, hence the Genus name. Interestingly urticating hairs are one of the primary defence mechanisms of some tarantulas and certain caterpillars. The tiny sharp hairs containing a toxin can cause severe skin irritations and respiratory problems if they are inhaled.

The larvae feed in groups and can severely defoliate the tree. Although it will not kill the tree, infestation on a regular basis will lead to the demise of the tree. When not feeding they cluster together to produce silken tents or nests on the trunk or branch. The larvae follow one another in a head-to-tail procession from the nest to a feeding area, hence the Specific name. The larvae moult inside the nests or tents and pupate in mid-summer, after which the adult moth emerges, and the life-cycle starts again.

The Forestry Commission, Defra, Kew, Local Authorities, etc have been monitoring the occurrence of this pest, and destroying the egg clusters or spraying the young caterpillars with insecticide. So far it has been successfully contained within the West London area, with fewer tents found in 2008 than 2007. It is too early to know what 2009 will bring. If you are still interested, there is far more information available on the Forestry Commission web-site.

