F-06 : Control of timber damage of historical buildings in Kandy district, caused by the carpenter bee

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Biodeterioration of hardwood timbers, especially the damage by insects burrowing into the wood, is a major problem in the conservation of timber in historical buildings. One of the commonest of such insect pests in the Kandy district, was identified and control methods were successfully applied.

Insects coming to the nests were collected using insect nets. In order to examine the nests and collect the life cycle stages, longitudinal cuts were made on samples of damaged and rejected timbers.

The biology and ecology of the insect agent, the carpenter bee *(Xylocopa tenviscapa)* Westwood Insecta: Hymenoptera), were studied in order to find suitable methods of control.

Larvae of the beetle *Cissites debyi* Firm was found to predate on the eggs and larvae of the carpenter bee and also feed on the food supply of the bee larvae. Thus, this beetle can be used as a biological control agent of the Carpenter bee.

Oxydomethen methyl, which does not harm the wood, was selected to destroy the life cycle stages within the nests in the burrows. The holes were then filled with a mixture of timber powder and rubber based glue/an epoxy resin. Wood preservative (BS Clear, CIC Chemicals, Colombo) was then applied to the timber and was found to be effective in preventing further attacks for a period of about 10 years.

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