

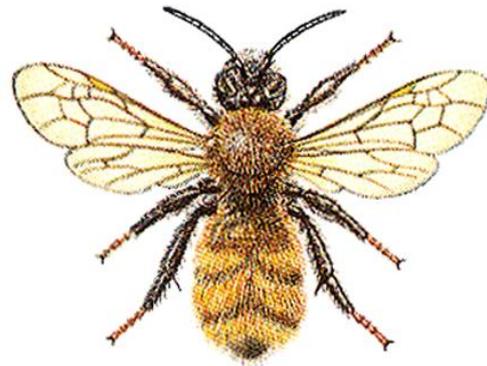
SOLITARY BEES

There are a number of solitary types of wild bee species some of which are:-

Mining Bees, Mortar or Masonry Bees and Carpenter Bees, whose habitat can be earth banks, soft exposed rocks, brickwork, soft or poor quality mortar and dry soft timber.

They are all solitary types in as much as they do not form distinct social colonies, although many individual bees will often attack the same area if it provides particularly suitable conditions.

Damage is caused by the female bees boring into the material to form a system of galleries or tunnels in which to house the pupal cells of the next generation. The gallery construction takes place during the early spring and the burrowing and emergence activities are completed by early summer. Only a single brood generation is raised each year so, although the bees may be evident during the summer because of more frequent flights, the building fabric will not suffer further damage until the following spring.



The gallery system constructed by a single bee will not cause any significant deterioration of the building's fabric. However, the brood raised in one year may over winter within the galleries and in the following spring, enlarge them or construct new ones. Over a period of a few years large numbers may become established in a small area.

In these circumstances damage can become much more severe and in extreme cases has been sufficiently bad to require some re-building.

In cavity walls the bees may construct cells within the cavity and on occasions have caused nuisance by gaining access to the interior of buildings.

As the bees' boring activities are limited to comparatively weak materials the most effective method of preventing further damage is the re-pointing of the walls in which the mortar joints are being attacked. The joints need to be raked out to a depth of at least 15mm and then pointed with a mortar that is not too strong for the brick but sufficiently hard to discourage the bees. For brickwork a 1:2:9 (by vol), cement/lime/sand, or 1:8 (by vol), cement/sand with plasticiser should be

adequate provided it is used when frosts are unlikely. If there is a risk of frost a 1:1:6, cement/lime/sand, or 1:6 cement/sand with plasticiser should be used.

For some stonework or brickwork where the stone or bricks are fairly weak a 1:1:6 mortar may be too strong and it would be better to use a 1:2:9 or 1:9 with plasticiser and ensure that the work is done in a frost free period.

In cases where the activity is in actual bricks or stone a regular spray treatment in early spring may be the only effective method of control. An alternative to this would be to render the whole surface with a mix not stronger than a 1:1:6 cement/lime/sand mix and preferably a 1:2:9.

Pointing is generally best carried out during late summer or autumn. This avoids both frost and the activities of the bees. If the work can only be done in spring an insecticide solution should be injected into the gallery entrances and the wall sprayed with the same solution after pointing to prevent attack on the mortar before it fully hardens. Emulsion, residual insecticides are recommended under the Pesticide Safety Precautions Scheme as suitable for this purpose.

The use of insecticide spray or injection treatments is unlikely to achieve any lasting effect alone.