

POSITIVE FOR POLLINATORS

The NFU has seen early success as part of an ambitious project to conserve the mason bee population, Oliver Cartwright reports



A mason bee coming into land at Telford

Solitary bees in the region have received a population boost as a conservation charity's efforts gain momentum and nest sites yield results.

The NFU regional office got involved with the Praise Bee charity last year to help its bid to increase populations of the native mason bee, *Osmia bicornis*.

The bee and other solitary species are essential for maintaining biodiversity and pollinating many agricultural and horticultural crops.

Bee pupae in nests at two NFU sites hatched last April and the insects reproduced successfully to help further the project.

Once the bees mated the males died off and the females collected pollen and nectar and laid eggs.

These then hatched and the larvae transformed into cocoons ahead of metamorphosis and a hibernation stage.

Shropshire horticulturalist Viv Marsh, of Hunkington Nurseries, at Walford Heath, encouraged the NFU to get involved and the charity is working with farmers, the Church of England, Ministry of Defence, West Mercia Police, the NHS and others who have also taken bee nests to promote the pollinator.

Harper Adams University, in

Shropshire, Pershore College, in Worcestershire, Cotswolds Seeds, Natural England and Shropshire Wildlife Trust and the Butterfly Trust are also involved.

Mr Marsh, who is an expert alstroemeria breeder and has a laboratory at his mail-order business, Viv Marsh Postal Plants, has just revealed the results from last year's NFU nest sites.

The Ellesmere, Wem and Prees NFU member revealed there were 18 mason bee pupae at Telford and a further 19 from a *Megachile* species of solitary bee.

While at Stoneleigh there were 56 mason bee pupae and a single *Megachile* pupa.

He said: "The results are really encouraging and it clearly doesn't account for those bees that chose instead to nest out there in the surrounds of the offices."

"At Telford it shows some success despite having a noisy, smoky generator from a building site alongside the office

while the Stoneleigh Park results were helped by better surrounding flora and of course less generators!"

He said it also showed that providing a good nest site would encourage the insects and this was borne out by the fact that *Megachile* had also taken up residence.

"All in all I am very happy with these results as first and foremost, it proves that things can be done for these bees merely by putting out nests," he added.

"Secondly with the unfolding research programme at Harper Adams University in meadow establishment and aftercare, we can gradually get bee numbers back up to pre-war levels once NFU members

participate along with all the other organisations we are working with."

He revealed that further sowing of additional meadows would now start at Harper Adams once the soils warmed up and the first RAF sponsored meadow would be sown in Shawbury.

Mr Marsh said: "The



The tubes filled with bee larvae and capped with mud.

THE NATIVE MASON BEE, *OSMIA BICORNIST*

- The mason bee is a solitary bee not to be confused with the masonry bee.
- They are named from their habit of making compartments of mud in their nests.
- Females use a pair of 'horns' on their heads to pack mud to close the compartments.
- Nests are naturally made in hollow reeds or holes in wood created by wood-boring insects.
- They are early pollinators.
- Mason bees do not cause damage to masonry or mortar and they don't swarm.
- The male has no sting and the female will only sting, similar to an ant, in exceptional circumstances if it is under serious threat.
- They are not prey to the Varroa mite which is causing such damage to honey bee populations but they are threatened by the Houdini fly, *Cacoxenus indagator*.



Right: A mason bee makes it's way into the nest at Agriculture House, Telford. Below: Mason bee pupae.



then continue to roll out further.

The research programme is running alongside current Defra bee studies and the charity is working with post-graduate students from Harper Adams and Bristol University, overseen by Professor Simon Leather, Professor of Entomology at Harper, and Bristol University's Professor Jane Memmott.

Professor Leather said:

"Research has shown that most pollination is not done by honey bees, but is instead delivered by other species of bee such as the mason bee and other solitary bees, as well as moths, flies and other insects. "As the UK's only provider of postgraduate courses in entomology and related areas, and

Shropshire's first university, we are delighted to be involved in the Praise Bee research programme and look forward to contributing our expertise."

There are also plans in the long-term to extend the Praise Bee project into mainland Europe with research sites in Spain and Portugal, along the fringe of the bees' southernmost fly zone, and also Switzerland, the northernmost fly zone.

Mr Marsh said: "For the time being though I am hopeful the NFU can help get the word out to the industry."

"Farmers and growers, like myself, should get a real reward from this project as most of us have a deep interest in nature and the environment and its vital role in plant growth and food production."

"The benefits will be immense to the environment, the species and there should be economic advantages for all, especially where top and soft fruit is grown."

Sarah Faulkner, NFU regional environment adviser, said the project had a lot of potential and she hoped it would

be a real success.

She said: "Much is already being done on a voluntary basis by farmers to reverse the decline in bee populations and other species but we're delighted to be on board with local members and others."

"We are pleased with the results from the NFU test sites and are encouraged that Shropshire farmers are ready to come on board with the project and I think it will be of real interest to other members across the region."

"We also think it's paramount that any future action to help bees is based on all the available evidence and takes a balanced approach by looking at the whole picture."

"We need to look at projects like this though and also use good evidence to measurably improve pollinator health and give it proper consideration so it does not have costs for the supply chain and possible unintended consequences for the environment."

"Our members are proud to produce quality produce and pollinators are essential for that and our industry."

GIVE US A BUZZ:

Shropshire farmers with a little derelict or unused land, of less than half an acre, around old semi-redundant farm buildings are encouraged to come forward. They are asked to sow early spring wild flower mixes which the charity is perfecting at Harper and Pershore.

Such areas are away from regular spraying, with the soils having low nutrient levels making them ideal for wild flowers and nest sites. For further details on the project and how you can get involved please go to www.praisebee.org.uk or contact Viv at viv.marsh@postalplants.co.uk