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07:03 GMT, Friday, 27 June 2008 08:03 UK

Bees seeking 'sugary' garden pest

By Steven McKenzie

Highlands and Islands reporter, BBC Scotland news website



A lack of suitable flowers may be forcing bumblebees to seek out aphids to feed on their sugary secretions.

The Bumblebee Conservation Trust (BCT) said it was a behaviour that appeared to be becoming increasingly common.

Images captured by the BBC Scotland news website in a garden in Nairn, in the Highlands, show the bees visiting tree leaves covered with aphids.

The secretions offer a substitute for nectar, but do not contain the protein the insects need to stay healthy.

There have been warnings that bumblebee and wild bee populations around the UK are experiencing "catastrophic declines".

Bees are important pollinators of flowers and crops.

The bumblebees' behaviour of feeding on secretions from aphids could be a further sign of the problems facing the insects.

"There is a fine balance to be struck in the garden - the answer is to put plants in the garden that are of benefit to bees"

Craig Macadam

Buglife Scottish officer

Dr Ben Darvill, a BCT director and research ecologist based at the University of Stirling, said there have been several reports of the behaviour but the reason for it remained unclear.

He said: "It's hard to say for sure, but it does seem as if this behaviour is becoming more common.

"Bumblebees are known to feed from aphid secretions, and from extra-floral nectaries on unlikely plants like bracken - but it's more usual to see it in upland areas where there are few other flowers around.

"The fact that it is now frequently observed elsewhere may suggest that there are fewer of the right sorts of flowers around in people's gardens and in the wider countryside."

Dr Darvill said a fascinating aspect of the behaviour was the bumblebees' ability to apparently smell the sugar.

They normally choose flowers by colour, but are known to have "smelly feet" allowing them to detect if a flower has already been visited by another bumblebee for its pollen.

However, the intrigue is tinged with concern for the insects.

Dr Darvill said: "Bumblebees have struggled in recent decades from habitat loss - three species are extinct in the UK and many more are threatened - so perhaps bumblebees are having to find innovative ways of finding food."



But he added: "Although the aphid secretions provide them with a sugary solution, a substitute for nectar, they provide no protein.

"Bumblebees can only get their protein from pollen, which they feed to their growing young, so it is essential for a healthy population."

Research work at the University of Stirling, has demonstrated that certain pollens are particularly rich in protein, said Dr Darvill.

He said to help declining bumblebees, gardeners, farmers and land managers need to ensure a constant supply of forage plants from March through until September.

Flowers from the pea and mint families seem to be particularly beneficial.

Craig Macadam, Scottish officer with conservation group Buglife, said aphids were considered a garden pest but he would not wish to see them wiped out.

He said: "Ants often protect the aphids from other predators such as ladybirds and in return they take the honey dew secreted by the aphids.

"There is a fine balance to be struck in the garden - the answer is to put plants in the garden that are of benefit to bees."

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