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BEE BACKPACKS HELP SCIENTISTS TRACK AND RESEARCH MOVEMENTS

 TELECOMMUNICATIONS

The miniature tracking device developed by researchers at Bangor University aims to shed light on what is affecting the falling numbers of bees.

Researchers from [Bangor University](#) in Wales are nearing completion on their 'backpacks' made for bees, which act as a tracking device. This will enable scientists to learn more about where the bees collect nectar and what might be affecting their numbers. The lightweight, long-range device will be powered through the bee's own electrical energy, with a small drone following its whereabouts and movements. The next stage of the tracking device development will be to test the devices on bees in a poly tunnel, and the ecologist and microsystems engineer behind the innovation hope to carry this out in coming months.

Existing bee monitoring devices are limited in their ability due to weight, range, and how long their power source lasts. The ability to track insects in their wide-spanning foraging range will be useful in a multitude of relevant circumstance; neonicotinoids and other insecticides, for example, affect the bee's navigation skills and tracking them over long distances can help researchers discover how the insecticides are affecting their direction finding. Other uses for the 'backpacks' include tracking Asian hornets in Europe, which are a serious threat to many bee species, so they can be controlled or eradicated to prevent damage to the bee population.

The initial project is funded as a Knowledge Economy Skills Scholarships (KESS) Programme. The partner organisation is the Bee Improvement and Bee Breeders Association (BIBBA), who are keen to

fund research into honey-bee tracking in temperate environments to identify the foraging range of the bee under differing climatic and environmental conditions.

While an [automated pollination robot](#) has been created to support bees, this isn't the only way the technology and insect worlds have collided. Insects are being used to inspire the workings of some of the most innovative creations on the market, such as a [new structure for solar panel cells](#) that take inspiration from the eyes of insects themselves. How else could minute tracking devices such as that created by Bangor University help keep wildlife thriving?

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