British scientist uses radar to track bee's lifelong route

Scientific research has used radar to track a bee's lifelong route and calculate the shortest life cycle - their longest.

For the first time, scientists conduct research to track the flight path of bees throughout their lifetime. That result helps biologists to better understand the activity of bees. In addition to bees, insects also play an important role in pollinating crops. Understanding the movements of bees, can help farmers manage their farming better.

Joseph Woodgate at *Queen Mary University* in London, along with his colleagues, used radar to track the daily routes of four different bees since they left the nest until they no longer returned. Because each radar can only track one bee, researchers have to place four different beehives at four different times to track each one.

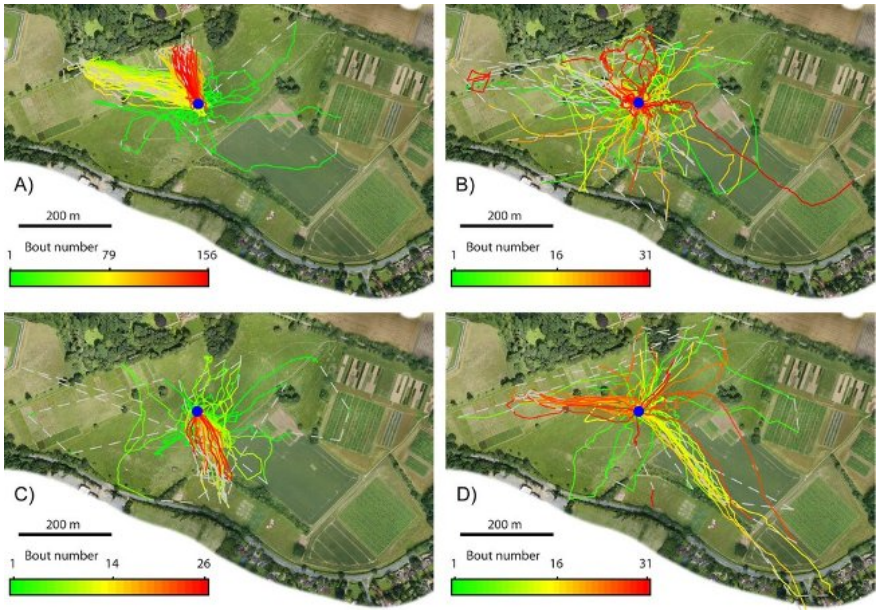
Research coordinator *Lars Chittka* replied with a press release saying: *"At first, we were able to record the whole 'life story' of a bee. At first, she flew. going out and seeing daylight completely different from the current world around her, she flew out and became an experienced hunter in an environment full of honey but full of clues. Dangerous threats such as being able to lose their lives in the hands of predators or inadvertently go too far from their nest. "*

To monitor every insect activity, scientists used glue to attach to each bee's body a radar system that received and emitted 16-millimeter-long signals. Radar antennas do not harm or interfere with all day-to-day activities of bees like spending the day searching for food in a vast field of flowers and starches in Hertfordshire, England. From the four bees' radar, the scientists collected information about 244 flights, about 15,000 minutes long and more than 111 miles away.

Previous studies have shown that *bumblebees* go to places to search or harvest food to harvest. But they have been searching and exploiting for how long they have not proven.

The researchers wrote: " *One of the most striking results when studying that is the magnitude of each different bee* " in an article published in *PLoS ONE* magazine .

Example: The number 1 bee spends most of their time exploiting food - about 90% more but bee number 2 and bee number 3 spend more time to explore. In their expeditions, the numbers 1 and 3 are not as far away as the No. 2 and No. 4 bees. The numbers 1 and 4 are often changed to their flights during the search for food and Never return to the original location they were looking for.



Each image describes the activity of a bee's life, its nest displayed with a blue circle.Each individual flight is displayed in a different color: the nearest flight (blue), further flight (yellow) and the last flight (red).

The study details the shortest and longest life cycle of a bee. Their longest life cycle is one month, while most bees usually die earlier. In this study, bee number 2 only lived for 6 days and it was a bee with the shortest life cycle. Once, the scientists happened to see the number 2 bee still in the field after sunset. It parked under a flower on the star fruit tree. Since bees do not fly at night, the bee must sleep on the trunk.

The next morning, the scientists woke up before dawn and found the bee still sitting under the flower. At 8:15 am, she began to search for food in nectar.

On the sixth day, she had a fast flight, heading southeast and flying out of the radar range. She saw a star fruit tree like the one she had parked the night before, the plan to find food was repeated again until the sun rose. But unfortunately, a violent storm last night brought her away and never returned.

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