

Cell phones may be contributing to the honeybee population decline

May 18 2011, by Deborah Braconnier



A honey bee robs a comb. Photo by Lynn Ketchum

(PhysOrg.com) -- In a new study published in *Apidologie*, Lausanne researcher and bee specialist Daniel Favre shares his findings of cell phones electromagnetic fields and their effects on the honeybee population. Research is being done worldwide to try and explain the phenomenon known as Colony Collapse Disorder (CCD), where workers bees disappear from a colony and cause a decline in honeybees, and Favre's research puts another idea out there.

In his experiment, Favre placed two cell phones inside a bee hive and set up equipment to record the sounds of the [bees](#) when the phones were off, in stand-by mode, and active in a phone call. After the phones had been on for about 20 - 40 minutes, the bees began to make a high

pitched squeaking sound known as "piping." This sound is usually a single made by the bees to announce swarming or that the hive is in danger. However, even after the phone signals running for 20 hours and the "piping" sound continuing, the bees did not swarm. Within only two minutes of the cell phones being turned off, the bees calmed down to their original state.

Favre is calling for the international scientific community to continue looking into the connection between cell phones and [electromagnetic fields](#) and the decline in the [honeybee](#) population.

While this experiment does show that phones in a close proximity to beehives can disrupt the normal bee behavior, scientists argue that cell phones are not normally found in beehives and believe that other causes, such as pesticides, the varroa mite, viruses, genetically modified crops, and unusually cold winters.

British bee expert Norman Carreck does not hold much weight in the study as having a link to CCD as he says you can knock or hit a beehive and receive the same result this experiment shows and many cases of CCD in the United States have taken place in remote areas where cell phone signals would not be an issue.

More information: Mobile phone-induced honeybee worker piping, *Apidologie*, [DOI: 10.1007/s13592-011-0016-x](https://doi.org/10.1007/s13592-011-0016-x) , Paper [online](#).

Abstract

The worldwide maintenance of the honeybee has major ecological, economic, and political implications. In the present study, electromagnetic waves originating from mobile phones were tested for potential effects on honeybee behavior. Mobile phone handsets were placed in the close vicinity of honeybees. The sound made by the bees was recorded and analyzed. The audiograms and spectrograms revealed

that active mobile phone handsets have a dramatic impact on the behavior of the bees, namely by inducing the worker piping signal. In natural conditions, worker piping either announces the swarming process of the bee colony or is a signal of a disturbed bee colony.

© 2010 PhysOrg.com

Citation: Cell phones may be contributing to the honeybee population decline (2011, May 18) retrieved 24 March 2023 from <https://phys.org/news/2011-05-cell-contributing-honeybee-population-decline.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.