PLANTS & HERBS

Flowers Hear Bee's Buzzing And Makes Their Nectar Sweeter

By bestfolkmedicine · 17/12/2019 · 2 min read



Even on the most silent days, our world is full of sounds like that of birds chirping, winds flowing through trees, and insects humming around.

ezstandalone.cmd.push(function () { ezstandalone.showAds(122); });

And, the ears of the predators and preys are attuned to each other's presence.

Sound is indeed pivotal for life and survival and this fact has motivated Lilach Hadany, a researcher from Tel Aviv University, to ask what if it wasn't only animals that can sense sound- what if plants could do it too?

ezstandalone.cmd.push(function () { ezstandalone.showAds(130); });

The primary experiments for this thesis suggest that at least in one situation, plants are able to hear and it's an important evolutionary benefit.

The Sweetest of Sounds

Together with the rest of the team, Hadany followed the evening primroses and discovered that within minutes of sensing the vibrations from the wings of pollinators, the plants increased their level of sugar in the nectars.

ezstandalone.cmd.push(function () { ezstandalone.showAds(131); });

The flowers served as ears and picked up the bees' frequencies and tuned out the unimportant sounds like the wind.

Hadany, an evolutionary theoretician, explains that she was curious because of the realization that sounds are an omnipresent natural resource.

ezstandalone.cmd.push(function () { ezstandalone.showAds(132); });

And, plants would be wasting if they didn't benefit from it like animals can. If plants could hear and respond to sounds, Hadany questioned, it may help them survive and pass their genetic legacy.

Pollination is pivotal for the reproduction of plants and therefore, the team began researching flowers, particularly the evening primrose.

This plant grows wild on beaches and parks around Tel Aviv and was a good candidate because of its long bloom time and the measurable amount of nectar it produces.

ezstandalone.cmd.push(function () { ezstandalone.showAds(133); });

What Did the Research Team Do?

For laboratory tests of the primroses, the team exposed the plants to 5 sound treatments.

They were silence, recordings of a honeybee from 4-inches away, and a computer sound in low, intermediate, and high frequencies.

The plants that were treated with silence didn't show any elevation in the sugar concentration and the same happened to those exposed to high and intermediate frequency sounds.

ezstandalone.cmd.push(function () { ezstandalone.showAds(134); });

However, those exposed to bee sound playbacks and low-frequency sounds, the sugar levels increased from 12 and 17 percent to 20 percent.

The sweeter treat for their pollinators, according to their theory, may attract more insects and thus, possibly elevate their cross-pollination chances.

Field observations have shown pollinators being more than 9 times common in plants another pollinator has visited in the past 6 minutes.

ezstandalone.cmd.push(function () { ezstandalone.showAds(135); });

Can Plants HEAR other Things?

Despite this major discovery, Hadany notes that there are a lot of questions that remain unanswered in terms of plants' response to sound.

For example, are some 'ears' better for some frequencies than others or why does the evening primrose make the nectar sweeter since bees can detect chances in sugar levels as small as 1 to 3 percent?

This study has opened up a new field for scientific research, which Hadany refers to as phytoacoustics.

ezstandalone.cmd.push(function () { ezstandalone.showAds(136); });

Sources:

NATIONAL GEOGRAPHIC

NEWS SCIENTIST

SMITHSONIAN MAG

Read online: https://bestfolkmedicine.com/2019/12/flowers-hear-bees-buzzing-and-makes-their-nectar-sweeter/

Downloaded on 24/11/2026

DISCLAIMER: We do not provide medical advice and nothing contained herein shall be construed as medical advice. The contents such as text, comments, graphics, images, videos and other content contained on this site are for informational purposes only. Statements on this website have not been evaluated by the Food and Drug Administration, and are not intended to diagnose, treat, cure or prevent any disease. Always consult your personal physician before starting any fitness or exercise program or changing dietary habits. The content of this site is not intended to be a substitute for professional medical advice, diagnosis, or treatment. It is not a substitute for a medical exam, nor does it replace the need for services or counsel provided by medical professionals.