ISSN 2347-3487
Volume 11 Number 8
Journal of Advances in Physics

Some Flying Animals that generate aversion to humans are the Bats

Alejandro Dueñas Jiménez, Juan Carlos Aldaz Rosas ,Oscar Blanco Alonso, , Roberto Toscano
Departamento de Electrónica, División de Electrónica y Computación, Centro Universitario de CienciasExactas e Ingenierías, Universidad de Guadalajara, 45030 Guadalajara, Jalisco, México.
*Corresponding Author: bikino1957@gmail.com

ABSTRACT

The incredible faculty of perception of the bat is vinculated to their system of ubication by means of eco resonance so; they are oriented by emitting high frequency sounds orientation, and receipting the echoes. In thaws way, detecting the objetcs around them, Perceiving one antennae no more of 1 mm of diameter, insects of size of a mosquito and objects as thin a human hair.

Keywords

Perception; eco resonance; high frequency sounds; larynges; neurons.

INTRODUCTION

The incredible faculty of perception of the bat is vinculated to their system of ubication by means of eco resonance so; they are oriented by emitting high frequency sounds orientation, and receipting the echoes. In thaws way, detecting the objetcs around them, Perceiving one antennae no more of 1 mm of diameter, insects of size of a mosquito and objects as thin a human hair.

The bat produces a sound with larynges is equal to the human one essentially, but larger in relation to His size and modified them with stranger formations on His Nose and mouth. When the echoes returns, touch His hears the sound on Which Changes Toward the vibrations of the internal bonds to the cerebrum informing hear.

The frequency of the Emitted sounds orientation is as high as 50000 and 70000 cycles per second when an obstacle is present and acerca of 30,000 cycles per second in the air. The bat radiates high frequency sounds to detect the objects around him. The reflection of this sounds not eared for the human being allows the bat to draw a map around him to analyze all the returning sounds. This pemits the bat navigate not only on the complete obscurity of the caves and on light of intensities lets you navigate not only in complete darkness of the caves and in low light in the forest, but also go towards flying insects.

For example, detetcs emitting the sound of a fly and the Emitted With the compares received. The time trancurring on the emmition and reception Provides information to specify the direction, movement form, and distance of the insect or another element.

Another surprising characteristic of the system is acerca bat is earing because the bat cannot perceive any sound as the same one. The spectrum of frequencies of the bat is very short and they should be the Doppler Effect problems Because Honoring the Austrian Physicists is if the sound source and receiver are relatively stationary, the receiver will detect the same frequency emitted by the source. However, if one of the two moves, the frequency at which it is detected is different from the emission. In that case the frequency of the reflected wave may fall within that are inaudible to the bat. So could face the problem of not hearing the echoes of the sound emitted and reflected on the dam in motion. But this situation is not presented because it adjusts the frequency of the sounds emitted towards moving objects, as if he knew the Doppler Effect. For example, it sends sound in the higher frequency towards the dam that moves, so that the reflected waves are not lost in the inaudible band.

Corresponds ask, how such adjustments or corrections take place?

In the brains of bats there are two types of neurons (nerve cells) that control their sonar system. One order the muscles to produce echolocation signals and the other receives the reflected ultrasound. Both kinds of neurons work perfectly synchronized, so a slight deviation in the reflected signals alert the first type of neurons and indicates the frequency of the signal being tuned to the frequency of the echo. Thus the tone ultrasound to operate in accordance bat and maximum efficiency changes.

There are certain specific neurons of spatial orientation, combining the duration and intensity of the signal inputs of sounds. It is also possible to identify maps of neurons in the auditory cortex of bats, which record small variations in each of the components of sound. The bat brain uses such neuronal maps to record changes around them. Humans could use such maps to process the basic acoustic patterns of speech, though it requires higher additional mechanisms. Neural maps can play an important role in the recognition of the human voice, the ability to recognize who is speaking and what is being said.

Scientists are investigating more about using echolocation bat in order to help the blind to detect objects with the help of strong sound Are the sounds produced by bats?
The echoes of long - eared bats are so mild as the sound of the keys of a typewriter.
The pipistrelles bats emit loud sounds an alarm.
Nocturnal bats have the strongest, comparable to the sound of a jet engine.
However, most of us can not hear them. These sounds are above the higher threshold of listening to our ear. It was discovered that bats march through very different paths leaving the cave. However, they always come back to it in a straight line from the various places they are.It is not yet known how are oriented to make the return trip as directed.

So knowing all this about the bats, it is now possible to model the neuroaxon at different frequencies to know which type of microstrip would be the most suitable for modeling.

Thus, it can be varied the frequency to understand how these affects on the nerve axon.

The low frequencies are a very limited range. So, it will be interesting consider the range of THz. To se what happen at these very high frequencies it will be of interest to see the phenomena as mentioned in paper titled An MMIC implementation of Fitzhugh–Nagumo neurons using a resonant tunneling diode nonlinear transmission line. So, as can be seen in this very interested paper, the frequency can be varied up the THz range and see what happen at this very high range of frequencies.

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