



September 24, 2013

Research – Bees and wind turbines

It is a known to everyone that noise from wind turbines generates sound both heard and inaudible to humans. Sounds emitted that are not within the scope of being audible to humans, basically come in the form of vibrations. These vibrations can travel much further than audible sound and affect a vast area, several miles from the wind farm itself. Downwind, these low frequency vibrations can travel up to 50 KM from the source.



The drastic increase in the number of wind farms in the United States began between 2004 and 2005, and has blossomed to cover vast sections of the country today, as seen on the blue map below.

Interesting to note is the time frame of drastic increases of the number of wind farms from 2004 to 2005. This time frame becomes very important, because it is also the exact time when massive disappearances of honey bees began to be reported, beginning in 2005, with drastic increases in the years to follow.

The next map shows the states where the most losses of honeybees have occurred.

The orange map below is also an interesting map, because if you didn't know better, you would believe it is another wind farm map. Although the southeast area of the United States, such as Florida does not have large numbers of operating wind farms, the honeybee disappearances in that area are attributed to weather events.



A series of hurricanes in 2004 and 2005, including hurricane Katrina virtually wiped out this area's honeybee population. With this in mind, the direct link to wind farms for the massive die off can be made.

While scientists scramble trying to find answers and offer theories ranging from a new form of virus, the earth's magnetic shift, to perhaps solar flares. It would be wise for them to look into the effects of sound vibrations emitted from wind turbines.

In a report by WH Kircher, titled Acoustical Communication in Honeybees on 02/05/1993, finds that airborne sounds and vibrations play an important role in honeybee communication. It is also coming to light that honeybees use sound vibrations to navigate, similar to sonar used by marine life and bats.

Since vast areas are within affective range of low frequency sound levels emitted by wind turbines, it becomes clear that there is a connection between low frequency sound produced by wind turbines and the disappearance of honeybees. The areas with the most disappearances of honeybees directly correspond with that of operating wind farms.

California is second, behind North Dakota for honeybee losses and first in wind farm operations, within range of areas where honeybee colonies are located. As of 2007, most North Dakota wind farms were concentrated within a small area in the southeastern portion of the state. Since then,

wind farms have spread to many other sections of the state, and the resulting losses of honeybees will most likely increase as well.

On a world scale, areas of honeybee disappearances does correlate with operating wind farms in particular regions. It isn't enough that the wind industry continues to operate under the guise of being a renewable energy source that will help in getting us off fossil fuel, when in reality they use more fossil fuel than they will ever produce.

The sad fact is this industry is only responsible for degrading our countryside with useless spinning towers. While the building and operations of the wind farms are killing millions of endangered bird species, raping pristine land and turning it into nothing more than a cluttered mess of steel and fiberglass. Turbines are destroying the natural habitat of wildlife in such areas. It seems now, that it may be responsible for the near destruction of the world's honeybee population.

The above has been taken directly from the www.ufodigest.com website and does give room for thought on the matter. To see what a research consultant says about this aspect of possible bee destruction, let's take a look at what Bio3 says about the matter.

Bio3 is a company recognized as a national leader in biodiversity consultancy, research and information systems. It has been awarded the title of SME Leader in Portugal in 2009, 2010, 2011 and 2012. In 2011 Bio3 was considered one of the 174 most innovative SME's operating in Portugal and was integrated in the COTEC SME Innovation Network.

Founded in 2005, Bio3 achieved a solid growth rate and is currently a national reference operating in its market. During the first 7 years of existence, Bio3 developed the biological section of over 400 projects, mostly related to environmental assessment, post-evaluation, environmental management and planning. Bio3 also executes applied research studies. They are experts on Ecological Baseline Studies and Biodiversity Monitoring Surveys, with an emphasis on renewable energy projects. Our clients include big Portuguese companies, such as EDIA, EDP Renewables, ENEOP2, ENERSIS, GALP Energia, GENERG, IBERWIND, REN and Ventinveste.

From day to day experience and knowledge of bee behaviour and ecology serious concerns are arising concerning to potential negative impacts of wind farms on bees derived from several effects,

such as the noise, stray voltage, air pressure changes and turbulence and electromagnetic field caused by the turbines.

Some American apiarists have shown concern by the shadowing, flashing, strobing effect from the blades, since it lasts 2 to 3 hours a day for 2 to 3 weeks in spring and fall when the sun comes up. They fear that the bees would either become disoriented or irritated by the effect. Other concerns of these apiarists were the “thumping noise” from the blades and the effect of “stray voltage” to the bees.