

International Dark Sky Association vs. FCC and SpaceX

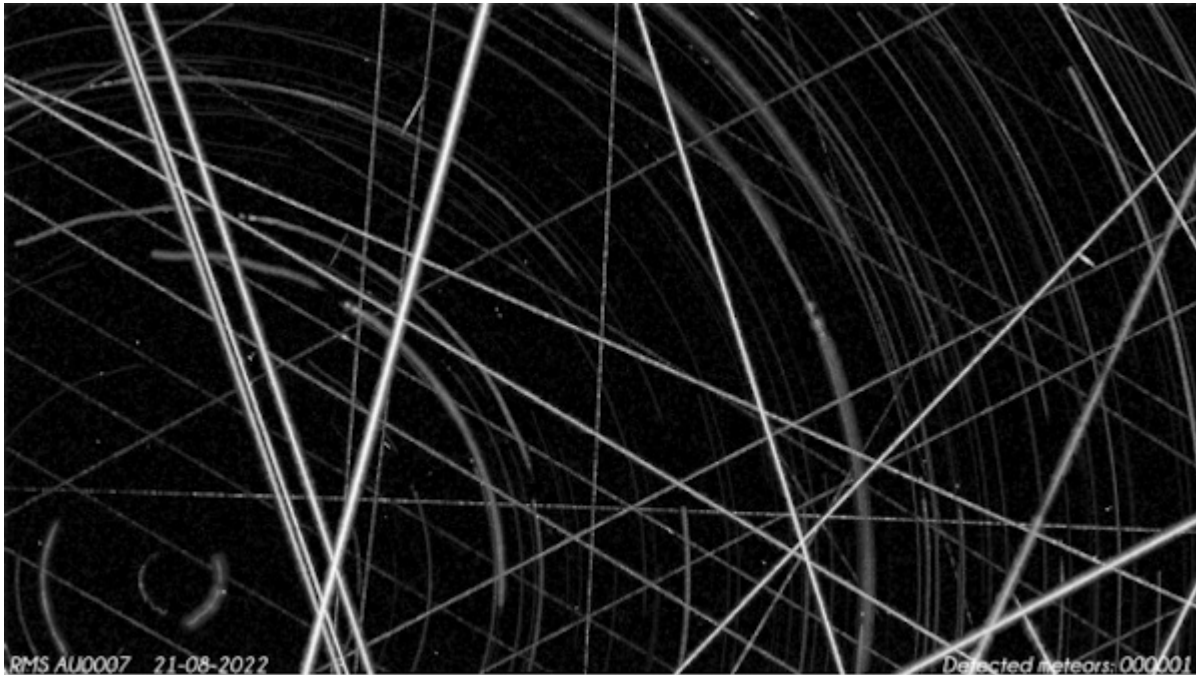
[International Dark Sky Association vs. FCC and SpaceX](#)

by [Arthur Firstenberg](#), [Cellular Phone Task Force](#)

May 1, 2024

On December 29, 2022, the International Dark-Sky Association (IDA) sued the U.S. Federal Communications Commission over its decision to approve SpaceX's application for up to 30,000 more low-orbit satellites, in addition to the 12,000 already approved and in process of filling our skies. This is [Case No. 22-1337](#) before the United States Court of Appeals for the District of Columbia Circuit, and has not yet been decided by the court.

Long-exposure photographs of the sky by astronomers already look like this:



The above photo was taken by an amateur astronomer in a suburban location in Western Australia. The circular tracks are stars. The much brighter straight tracks are all satellites, except for one track which is a meteor.

Below is a 77-minute exposure taken by astronomer Dave Thanatos in Salisbury, England. In this darker location, the circular tracks of the stars are brighter than the straight tracks of the meteors and satellites which, however, fill the entire frame of the photograph. There are only 10 meteors in this picture. All the other straight tracks are satellites. And as Scottish astronomer Andy Lawrence, lead author of "[The Case for Space Environmentalism](#)," said, "Good luck telling the difference!"



American plasma physicist Sierra Solter [implored the FCC](#) to “*please save our night sky... **Please, please, don’t take away my stars.** To feel that my place of comfort and calm – a starry sky – is being taken away and given to billionaires is suffocating.*”

On December 18, 2023, Ms. Solter published [a scientific article](#) detailing her fear for our planet. Each of the 42,000 planned Starlink satellites, she wrote, has a design lifespan of only 5 years, after which it will be de-orbited, burned up in the atmosphere, and replaced. She calculated that this will require 23 satellites per day – each the size of an SUV or truck – to be burned up in the atmosphere forever into the future, leaving an enormous amount of toxic chemicals and metallic dust to accumulate in the air we breathe and in the ionosphere.

This is already happening, she wrote, and should be stopped if we value our lives. “Since the beginning of the space industry, approximately 20,000 tons of material have been demolished during reentry... This amount is over 100 billion

times greater than [the mass of] the Van Allen Belts.” She estimated that if 42,000 Starlink satellites are deployed and regularly demolished – let alone the 1,000,000 satellites planned by other companies and governments – “every second the space industry is adding approximately 2,000 times more conductive material than mass of the Van Allen Belts into the ionosphere.”

“Unlike meteorites, which are small and only contain trace amounts of aluminum, these wrecked spacecraft are huge and consist entirely of aluminum and other exotic, highly conductive materials,” she explained in an [April 16, 2024 article](#) in *The Guardian*.

Much of the metallic dust will settle into the ionosphere where, she says, it could act as a magnetic shield, reducing the magnitude of the Earth’s magnetic field in space. If that happens, the atmosphere itself could eventually be destroyed, because the Earth’s magnetic field – the magnetosphere – is what deflects the solar wind and prevents it from stripping away Earth’s atmosphere, as she told Teresa Pulterova in [an interview](#) on Space.com.

Other astronomers involved in the litigation before the FCC and now the Court of Appeals include Meredith Rawls with the Vera C. Rubin Observatory in Chile; Gary Hunt with Action Against Satellite Light Pollution in the UK; Samantha Lawler at the University of Regina in Canada; Graeme Cuffy of Port of Spain, Trinidad and Tobago; Mark Phillips, President of the Astronomical Society of Edinburgh; Roberto Trotta of the Imperial Centre for Inference and Cosmology in London; Carrie Nugent, Associate Professor of Computational Physics and Planetary Science at the Olin College of Engineering in Massachusetts; and Cameron Nelson of Tenzing Startup Consultants in Virginia.

Other issues are also mentioned in the appeal. For example, the burned up aluminum produces aluminum oxide, which destroys

ozone and contributes to climate change. So does the water vapor, soot, and nitrogen oxides in rocket exhaust.

Cameron Nelson told the FCC that “Humans, not to mention all other animal and plant life, have **not** given our consent for SpaceX to send the signals it is proposing into our bodies and irrevocably alter us.”

The BroadBand International Legal Action Network (BBILAN) mentioned “RF/EMF radiation from linked base and earth stations” in comments sent to the FCC. Starlink earth stations, also called Gateways, are far more powerful than the Starlink dishes that people are putting on their homes. The (as of March 2024) 2.6 million Starlink dishes each send one signal up to the moving network of satellites above them. All of this traffic is coordinated in space by thousands of lasers linking the satellites to one another, and on the ground by Gateways, which relay the thousands of signals in a large geographic area to and from the satellites. This is what a Gateway with 5 antennas (“radomes”) looks like:



Some Gateways have up to 40 radomes. Each of those domes

weighs 1750 kilograms. Each aims a narrow beam at moving satellites. According to FCC filings by SpaceX, each beam can have an effective radiated power of more than 1,000,000 watts, which it can aim as low as 25 degrees above the horizon. If you are a bird you do not want to fly anywhere near a Starlink Gateway. And if you are a human you do not want to live near one either. When a satellite aims its beam containing thousands of signals at a Gateway, that beam is about 10 miles in diameter by the time it reaches the Earth.

Robin is a subscriber who lives in a remote area of Idaho less than 3 miles from the Starlink Gateway in Colburn. She writes about effects on her family and her animals – effects that disappear when they are at their other home in Montana where they are surrounded by National Forest. The effects on her guinea hens are similar to the effects I wrote about in my last newsletter:

“Our guinea hens make a strange noise while moving in a circle. This only happens in Idaho where we live within 3 miles from a SpaceX ground station. We never see this phenomenon in Montana.

“We also had 2 separate litters of Chihuahua puppies born. Both litters had defects, and both lost a puppy and were smaller in size. The very same thing happened with our cat, small litter, birth defects and the loss of one kitten. There was a fire last year and we were forced back to Idaho and are making EVERY EFFORT to move away from the gateway and our neighbors’ Starlink dishes as quickly as possible. My health is a concern here, but when I go home to Montana I am fully recovered as are my husband and son. We live off grid both places. No electricity, no running water, and it’s a crying shame what is happening to the world with all these manmade devices.”

When in Idaho, Robin suffers from extreme vertigo and nausea, burning migraines, severe pain in her spine and all her

joints, tingling in her fingers and toes, memory problems, "extreme gut pain, and at times stabbing pain in gall bladder and liver," bradycardia, tooth pain and sinus infections, and "severe heart palpitations to the point where I'm gasping for breath while my heart pounds." Her husband has joint pains, frequent urination during the night, and headaches. Her son has heart arrhythmias, stabbing pains in the gut, and brain fog. She and her husband hear the radiation. "We're hearing a sort of sped-up Morse code," she says. "When I go home to Montana I am fully recovered as is my husband and son."

Robin knows many people in her area who are similarly affected. She adds that *"when we first moved here in 2019 we had A LOT of birds. We now have a silent spring, it's like a dead zone. I've heard/seen one Robin and just a handful of birds. We used to put out 11 hummingbird feeders and as of last year we only need one. There were quite a few black bears and a couple of grizzlies but now only one grizzly is around."*

At last count there were 277 Starlink Gateways in operation or under construction in the world: 181 in North America and the Caribbean, 26 in South America, 2 in Africa, 26 in Europe, and 42 in Asia and the Pacific.

The FCC maintains a [webpage](#) listing thousands of licenses that it has handed out to hundreds of companies to operate both fixed and mobile satellite earth stations in the United States. Some of these stations are far more powerful than the Starlink Gateways. SES's earth station at Bristol, Virginia emits up to 1,900,000,000 watts of effective radiated power, and it is allowed to aim it as low as 5 degrees above the horizon. SES's earth station at Brewster, Washington is allowed to emit almost 1,000,000 watts in the actual direction of the horizon! SES owns O3b mPOWER, which is the satellite system that had its first radomes on board the Diamond Princess cruise ship, the ship that had the famous outbreak of disease blamed on COVID-19 at the beginning of the pandemic.

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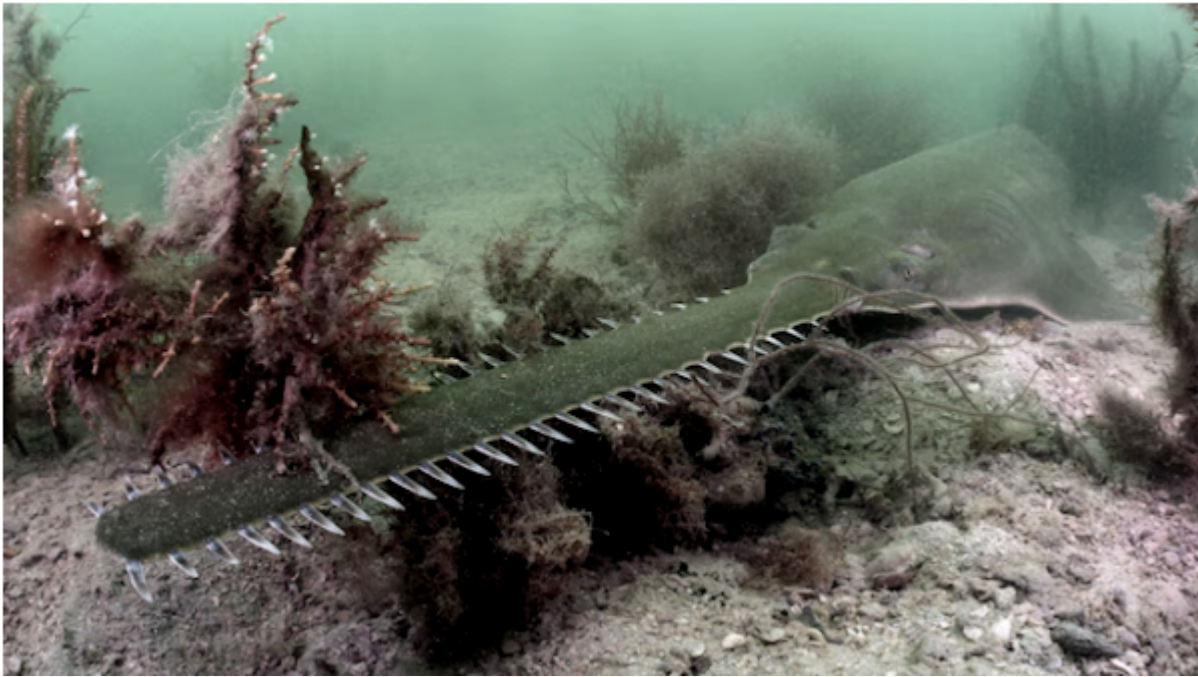
*Cover image credit: [Charles Boyer](#), SpaceX Falcon 9 Launching Starlink
Group 4-34 Satellites, 09-18-2022*

Whirling Fish, Bees, Worms, Sheep, Turtles, Penguins

[Whirling Fish, Bees, Worms, Sheep, Turtles, Penguins](#)

by [Arthur Firstenberg](#), [Cellular Phone Task Force](#)

April 16, 2024



More Than Fifty Species of Fish Circling and Spinning Until They Die

Several of my subscribers have called my attention to this. In February 2023, in the middle of the Florida Keys – a long, narrow string of islands hooking down into the ocean from Miami – many different kinds of fish, both common and rare, began spinning round and round, or swimming frantically in circles, until they beached themselves and died. This has continued, and as of April 5, 2024 has [been observed](#) in more than 50 species, including: sharks, rays, snappers, pilchards, grunts, blue runners, squid, Goliath grouper, tarpon, snook, redfish, leatherjacket, yellowfin mojarra, scaled sardine, toadfish, mullet, permit, ballyhoo, jack crevalle, yellow jack, bonefish, pinfish, bigeye scad, sand perch, needlefish, spadefish, and the critically endangered smalltooth sawfish, which is pictured above.

No cause for this has been found. There is no evidence of a red tide, low oxygen levels, high temperatures, or parasites in the dead fish.

I was skeptical that RF radiation from cell towers could be

causing this because water reflects the radiation and it shouldn't be killing fish like it is killing birds. But I decided to investigate. Because the greatest number of reports have come from a 10-mile-long stretch of the Keys between Big Pine Key and Sugarloaf Key, I wondered if there is a military facility in that area, and there is, or was. On Cudjoe Key, located between Big Pine Key and Sugarloaf Key, there was an Air Force Base that is now operated by the Department of Homeland Security. And above Cudjoe Key floats a radar blimp, called an "aerostat", that is part of U.S. border surveillance and scans an area around it for 200 miles in every direction. Powerful radar can injure fish when they swim to the surface in these shallow waters, called the Florida Keys flats, where the water is only a few feet deep. Local residents call this blimp Fat Albert.



There may be underwater sonar in use at this facility as well, which would be likely to affect all the fish, either alone or in combination with the radar. In November 2022, the Tethered Aerostat Radar System (TARS) at Cudjoe Key began recruiting for a variety of positions, including Flight Director, Site Laborer, Logistics Supply Coordinator, Logistician, General Maintenance Worker, and one position that [was advertised](#) as **"Electronic Technician – Aerostat Sonar / Radar – Blimp**

Surveillance System – Cudjoe Key, FL”.

The sudden large number of job openings makes one suspect that this facility has recently been upgraded and has increased the scope of its operations, which evidently now includes ocean sonar.

The person who first observed fish circling to death, and called attention to it, was Gregg Furstenwerth, a diver who lives in Cudjoe Key.

Circling Worms and Sheep

As I [reported three years ago](#), the launching of almost 100 satellites by SpaceX and OneWeb on a single day on March 24, 2021 caused illness all over the planet in both humans and animals. Among the effects on animals was a spiraling, or circling phenomenon in worms (photo taken in Hoboken, New Jersey on March 25, 2021):



and in sheep (photo taken in England on March 26, 2021):



Circling Turtles, Seals, Penguins, Sharks and Whales

In 2021, [Japanese scientists reported](#) on bizarre circling behavior of green sea turtles, Antarctic fur seals, king penguins, a whale shark, a tiger shark, and a Cuvier's beaked whale. This was observed in the seas off Oahu, Hawai'i; Okinawa, Japan; Moheli Island, Comoro; Chichijima Island, Japan; Possession Island in the Indian Ocean; Bird Island in South Georgia; and the Ogasawara Islands in the western North Pacific Ocean. The animals circled round and round for up to an hour. *"One turtle swam in large circles 76 times, with each loop taking 16 to 20 seconds"*, [reported New Scientist](#). This behavior was also caused by radiation: all these different whirling sea animals wore computers ("multi-channel data loggers") and VHF transmitters, and the sea turtles also wore GPS devices. Instead of enabling them to study the animals' behavior, the devices were *causing* the bizarre behavior.

Circling Bees

Grayson in North Carolina is one of my subscribers who sent me information about the circling fish in the Florida Keys. He reports also on circling bees:

"I still have the sample of carpenter bees harmed by a wi-fi light sensor at my home in 2016ish. They did the same thing. They passed through the sensor's field and dropped to the base of the light and crawled around in circles for days... There were 23 total and they did not respond to water or honey and water or anything. They just crawled around in circles."

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**Living Cells Emit Signals
Throughout the
Electromagnetic
Spectrum: Radio Waves Are
Harmful, Period!**

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Radio Waves Are Harmful, Period!

Power Level Is Irrelevant

by [Arthur Firstenberg](#), [Cellular Phone Task Force](#)

April 2, 2024

Just one violin out of tune in an orchestra, or one voice off-key in a choir, will ruin a beautiful harmony, or an enchanting ensemble. It matters not how loudly it grates, or how softly; if it does not stop, the performance will come to an end.

So it is with the cells of our bodies, and of the birds, insects, animals and plants whose music fills the Earth. When a jarring note is introduced, no matter how softly, chords become discords, melody becomes noise, life degrades and disappears.

Life, Information, and Electricity

The cohesion of life does not come from chemistry. It comes from the Earth, Sun and stars.

K.H. Li wrote, in his forward to the book, *Electromagnetic Bio-Information*:

“It is the informational aspect of biological systems that characterizes the essential view of life. And this is less reflected by biochemical findings, but rather by a level beyond the domain of chemical reactivity, namely that of electromagnetic fields.” [1]

Nikolai Kositsky, Aljona Nizhelska and Grigory Ponezha reviewed 40 years of research in Ukraine and Russia

and concluded:

“Biological effects [of electromagnetic radiation] depend not on the strength of the energy carried into one or another system, but on the information carried into it.” [2]

Grundler and F. Kaiser wrote:

“Living cells exhibit a high degree of information processing and communication... It is clearly demonstrated that a fast oscillating, very weak outer field is influencing biological reactions of cells... We have to take into account an ‘internal’ oscillator (the cell itself or parts of the cell or of its environment) coupling with the outer field.” [3]

John Zimmerman and Vernon Rogers wrote:

“Electromagnetic bioinformation depends on the ability of organisms to emit, receive, and interpret spatiotemporal patterns of electromagnetic fields.” [4]

Herbert L. König, a student of Winfried Schumann, wrote:

“Electromagnetic forces in general must play a role of an as yet incalculable importance in the information transfer between or to living organisms.” [5]

Ulrich Warnke wrote:

“The communicative form of antennae contact in bees and ants can be registered by an oscillograph. Every time a short contact occurs between the antennae a signal is generated in the electrolyte system of the recipient in the form of an impulse.” [6]

Günther Becker showed that the rate of gallery building by termites was affected by the existence of termites in an adjoining container, but not if the wall between them was shielded with a conductive material. “These results indicate that communication among termite groups is based on either

electric or electromagnetic fields produced by the insects," he wrote. [7]

Bernhard Ruth wrote that the growth of plants and animals cannot be explained in terms of chemical reactions because "all chemical reactions occur equally in all directions" and biological growth is directional. "The existing cells of an organism have to determine when and where a new cell is to be generated by mitosis. This can only be achieved by means of an information transfer which stimulates the required cell to divide, and which is not emitted in all directions homogenously." [8]

Helmut A. Fischer wrote:

"There is good reason for believing that, in addition to mechanical and chemical forms of communication, there are more biophysical ways of communication... The findings made so far confirm that the biochemical processes in a cell, besides thermic effects, also elicit other electromagnetic signals." [9]

Igor Jerman wrote:

"Coherent electromagnetic oscillations in cells permit ordered intermolecular processes and highly selective attractions between enzymes and substrates. These oscillations... represent an important means of intercellular long-range connection and thus have an important role in maintaining an intercellular order... Neoplasms follow from the fact that some of the cells within the organism escape from the intercellular coherent field and thus from the intercellular order." [10]

Living cells emit signals throughout the electromagnetic spectrum

In their study, "Electromagnetic emission at micron wavelengths from active nerves," **Allan Fraser and Allan Frey** measured infrared emissions from nerves with wavelengths

between 2 and 20 microns, at a strength of 6 $\mu\text{W}/\text{cm}^2$. [11]

Bernhard Ruth detected light photons emitted by plants:

“The light intensity emitted by seedlings of wheat, beans, lentils and corn varied between 700 cps (counts per second) and 250 cps... The spectral distribution extended from 400 nm to 600 nm... Yeast cells show a radiation of between 150 and 380 nm.” [8]

Shou Sin-Sung wrote that “DNA is a possible radiation source.” [12]

A.H. Jafary-Asl and Cyril W. Smith detected radio frequency signals from yeast at a frequency of 8 MHz. [13]

Herbert A. Pohl detected signals at 7 and 33 kHz from a species of algae. [14]

Kent Pollock and Douglas G. Pohl in dielectrophoresis studies detected RF emissions from mouse cells at frequencies between 4 and 9 MHz. Similar emissions were detected from cells from bacteria, yeast, worms, chickens, frogs, monkeys, and humans. Maximum emissions occurred during cell division, and no emissions from dead cells:

“The evidence from the m-DEP experiments and from the closely related pattern experiments consistently indicate that cells are producing radio frequency electric fields.” [15]

Sergey Sit'ko and his colleagues measured emissions from the human body between 37-78 GHz at 10^{-15} to 10^{-16} $\text{mW}/\text{cm}^2\text{Hz}$. [16]

It takes little or no power to interfere with life

Allan Frey wrote:

“Electromagnetic fields are not a foreign substance to living beings like lead or cyanide. With foreign substances, the greater the dose, the greater the effect – a dose-response

relationship. Rather, living beings are electrochemical systems that use very low frequency EMFs in everything from protein folding through cellular communication to nervous system function. To model how EMFs affect living beings, one might compare them to the radio we use to listen to music.

“The EMF signal the radio detects and transduces into the sound of music is almost unmeasurably weak. At the same time, there are, *in toto*, strong EMFs impinging on the radio. We don’t notice the stronger EMF signals because they are not the appropriate frequency or modulation. Thus, they don’t disturb the music we hear. However, if you impose on the radio an appropriately tuned EMF or harmonic, even if it is very weak, it will interfere with the music. Similarly, if you impose a very weak EMF signal on a living being, it has the possibility of interfering with normal function if it is properly tuned. That is the model that much biological data and theory tell us to use, not a toxicological model.” [17]

Gerard Hyland said:

“The human body is an electrochemical instrument of exquisite sensitivity.” [18] “If a signal can operate a mechanical device, it can disturb every cell in the human body.” [19]

Igor Belyaev wrote:

“While the dose rate/SAR concept is adequate for description of acute thermal effects, it is not applicable for chronic exposures to N[on]T[hermal] M[icro]W[aves].” [20] and “The 51.755 GHz resonance frequency of the cell reaction to MMWs did not depend on power density (PD) in the range from 10^{-19} to 3×10^{-3} W/cm².” [21]

Ross Adey, at Loma Linda University, wrote:

“We have discovered some of the keys to understanding how body cells ‘whisper’ to to one another, and, in so doing we have discovered some of the keys to understanding how

electromagnetic fields, so weak that some scientists have regarded them as incapable of biological effects, are detected by living tissues, and we have studied some of the likely consequences for human health... These fields can exert effects even at intensities near zero, in other words, a lower limit or threshold may not exist." [22]

Neil Cherry presented "conclusive evidence" that "the safe level of exposure is zero" [23] and that radio signals "can interfere with hearts, brains and cells at extremely low intensities." [24]

Robert Becker wrote:

"There is no effective way to shield yourself from environmental fields except to avoid areas where they are prevalent" [25] and "If the system's sensitivity is as presently described, then frequency becomes a more important parameter in any experiment than field strength." [26]

In *The Body Electric*, he wrote:

"The accumulated research has clearly shown that small doses often have the same effects as larger ones... Indeed there has already been one report of brain wave changes suggesting resonance of neural electrical currents with radio waves and microwaves down to a billionth of a microwatt... We must understand that *no* amount of artificial EMR, no matter how small, has been proven safe for continuous exposure. Bioeffects have been found at the lowest measurable doses." [27]

Herbert L. König wrote:

"Biological systems have sensitivity values of the same order of magnitude as the field intensity values of natural fields." [5]

William Bise testified before the U.S. Senate about effects on

brain waves that he elicited by radio waves at near-zero intensity. The results of his experiments ought to terrify every person who ever uses a cell phone and every doctor who is confronted with the extraordinary amount of anxiety and depression in his or her patients today, because the radiation in Bise's experiments, at exposure levels 10,000,000,000 to 100,000,000,000,000 times lower than a cell phone, had strong and instantaneous effects on all subjects' brain waves and mental states:

"A pilot study was conducted on five men and five women volunteers... They ranged in age from 18 to 48 years. Three had been occupationally exposed to RF energy; the other seven had not and all were in apparent good health. The RF ranges covered from .1 to 960 Mhz C[ontinuous] W[ave] and 8.5 to 9.6 Ghz pulse modulated. Power levels were varied from 10^{-16} wt/cm² to 10^{-12} wt/cm²... Experimental time for each volunteer was typically 50 minutes...

"Subjects' EEG traces displayed desynchronized alpha waves of 15 to 25 percent higher than normal amplitude and slow waves appeared at certain radiofrequencies. Conversely, diminution and desynchronization of alpha wave amplitude on the order of 20 to 50 percent occurred at other radiofrequencies and 2 to 6 Hz slow waves appeared. These two anomalous patterns were found in both men and women volunteers. Mental attitudes appeared to change during the tests. CW frequencies at a power density of about 10^{-15} wt/cm² which produced EEG changes in males, were found between 130 and 780 Mhz. Female volunteers' EEG alterations occurred between 350 and 960 Mhz. Pulse modulation tests on two males, at a power density of about 10^{-12} wt/cm² showed EEG changes around 9.1 and 9.15 Ghz. Brain waves changed almost immediately upon tuning a generator to a frequency which produced them and then almost immediately reverted to their normal patterns when the generator frequency was altered or turned off." [28]

Sheldon Meyers, Director of the U.S. Environmental Protection Agency's Office of Radiation Programs, told Congress that "*it is not possible to assign a low intensity limit or threshold below which the exposures are without effect.*" [29]

Reba Goodman and Martin Blank wrote:

"Induction of the stress response by magnetic fields occurs at 14 orders of magnitude lower energy density than with thermal stimuli, the current benchmark for cell phone safety standards." [30]

Yury Shckorbatov found evidence of cell damage after only *one second* of exposure to 18.75 GHz microwaves at a level of 0.2 mW/cm². [31]

Low power can be more harmful than high power

Andrew Wood, Rohan Mate and Ken Karipidis reviewed 107 experimental studies and found that a lower exposure level tended to have a *greater* biological effect, and the difference was highly significant ($p < 0.001$). [32]

Stefano Cucurachi et al. reviewed 113 peer-reviewed field and laboratory studies and found that RF radiation with the *lowest* power tended to cause the *greatest* ecological damage. [33]

Maria Sadchikova found that among people occupationally exposed to RF radiation in the 1950s, 1960s and 1970s, the sickest were those exposed to the *lowest*, not the highest levels. [34], [35]

Abraham Lilienfeld analyzed the health of Moscow embassy employees during the 1950s, 1960s and 1970s at a time when Russia was continuously irradiating the embassy with microwaves. His report was written for the U.S. Department of State. Table 6.32 of his report shows that male employees exposed to the *lowest* level of radiation had the most symptoms

in 18 of 20 symptom categories. [36] They had more:

- depression
- migraine
- lassitude
- irritability
- nervous disorders
- anxiety
- vibrations
- intraocular pain
- sensations
- loss of appetite
- difficulty concentrating
- memory loss
- dizziness
- finger tremor
- hallucinations
- insomnia
- neurosis
- other symptoms

Liliya M. Fatkhoutdinova studied the effects of video display terminals on blood pressure. Lower levels of electromagnetic fields raised blood pressure more than higher levels. [37]

Vladimir N. Binhí and Robert J. Goldman studied the proliferation of wound cells in response to electric fields. They wrote:

“Most dramatic is the fact that relatively intense electric fields sometimes do not cause appreciable effect while smaller fields do.” [38]

Herbert L. König wrote:

“Exceptionally intense fields often cause no reaction at all.”
[5]

Leif Salford, Bertil Persson, Arne Brun, Henrietta Nittby and

their team at Lund University in Sweden researched the effects of RF radiation on the blood-brain barrier for 20 years. They found that the lowest levels of exposure caused the most damage to the blood-brain barrier. [39] They calculated that you will do more damage to your brain if you hold a cell phone one meter away from you than if you hold it up to your head. [40]

Dimitris Panagopoulos found that RF radiation reduced reproduction in fruit flies. The maximum impact on fruit fly reproduction occurred when the source of radiation was at some distance away from the flies. [41]

Igor Belyaev, experimenting on *E. coli*, found that genetic effects occurred at specific frequencies and that the magnitude of the effect did not change with power level over 16 orders of magnitude, all the way down to 0.000000000001 mW/cm². [21]

Numerous scientists in many laboratories – **Carl Blackman et al.** at the U.S. Environmental Protection Agency [42]; **Suzanne M. Bawin, Leonard K. Kaczmarek and W. Ross Adey** [43]; **Sisir K. Dutta et al.** [44]; **Jean-Louis Schwartz, Dennis E. House and Geoffrey A. R. Mealing** [45]; and **Kumud K. Kunjilwar and Jitendra Behari** [46] – found that calcium depletion from brain and heart cells occurred at specific frequencies and exposure levels and did not increase with power. Dutta found a 3,000-fold decrease in power caused a 4-fold increase in calcium exiting from cells.

Grundler and F. Kaiser halved the growth rate of yeast at a precise microwave frequency. The magnitude of the effect of this frequency did not change with intensity over several orders of magnitude, down to 5 pW/cm². [3]

Cooking Your Brain and Your DNA

Here are some other findings that should terrify anyone who

uses a cell phone, considering the unprecedented numbers of young people today with cancers and neurological diseases.

First are some measurements made by **Markus Antonietti**, Director of the Max Planck Institute of Colloids and Interfaces in Germany. In 2006, when cell phone use was becoming universal, he wondered what they might be doing to the brain. Cell phones exposed the brain to about 1 W/kg SAR, which did not heat the whole brain more than one degree Celsius, but what about the conditions that exist in the tiny synapses, the junctions between neurons where nerve impulses are transmitted from one nerve cell to another? His research team decided to simulate the conditions between cell membranes with tiny fat droplets in salt water. [47] “Ions accumulate on these,” reported *Zeit Online*, the newspaper that interviewed him, “and by changing the salt concentration and the droplet size, the conditions of biological tissue can be simulated, i.e. a kind of concentrated liquid brain.

“‘And now comes the tragedy,’ said the Max Planck Director. ‘Exactly where we are closest to the conditions in the brain, we see the strongest heating.’ Temperature peaks of 100 degrees. He had expected warming, but not to this extent. ‘There is a hundred times as much energy absorbed as previously thought. That is a horror.’” [48]

It turns out a cell phone not only boils your synapses, but also your DNA. A number of research teams have discovered that DNA is a good conductor and so, as in the synapses, RF radiation is conducted and amplified tremendously in DNA.

Jacqueline K. Barton and her colleagues at the California Institute of Technology in Pasadena observed ultrafast electron transfer in DNA over large distances. [49] “In effect,” she told *Science News*, “DNA acts like a molecular wire.” [50]

Hans-Werner Fink and Christian Schönenberger reported that the

conductivity of DNA is 10^5 Siemens per meter, which is ten times larger than that of most electrically conducting polymers, and about one-tenth the conductivity of mercury. [51]

And **Charles Polk** tells us what the consequences of this are. Based on Fink and Schönenberger's measurements, Polk calculated that the rate of temperature increase in the interior of DNA exposed to a cell phone at 1 W/kg SAR is 60 degrees Celsius per second! [52].

Your cell phone, if you still use one, is cooking your brain and damaging it, during every second that you use it. The cell towers that it commands are sickening us, no matter how far away from one we manage to be. The satellites – 9,500 of them and increasing rapidly – are polluting our bodies, sterilizing our planet, and severing our connection to our sources of vitality, beneath our feet, in the air, in the oceans, and in the heavens.

References

- [1] K.H. Li. Foreword to *Electromagnetic Bio-Information*, Fritz Albert Popp et al., eds., Urban & Schwarzenberg, München (1989).
- [2] Nikolai Kositsky, Alona Nizhelska, and Grigory Ponezha. Influence of High-frequency Electromagnetic Radiation at Non-thermal Intensities on the Human Body. *No Place To Hide* 3(1) Supplement (2001).
- [3] W. Grundler and F. Kaiser. Experimental evidence for coherent excitations correlated with cell growth." *Nanobiology* 1:163-176 (1992).
- [4] John Zimmerman and Vernon Rogers. Biomagnetic Fields as External Evidence of Electromagnetic Bioinformation. In *Electromagnetic Bio-Information*, Fritz Albert Popp et al., eds., 1989, pp. 226-237.

- [5] Herbert L. König. Bioinformation – Electrophysical Aspects. In *Electromagnetic Bio-Information. Proceedings of the Symposium, Marburg, September 5, 1977*, Fritz Albert Popp et al., eds. Urban and Schwarzenberg, München 1979, pp. 25-54.
- [6] Ulrich Warnke. Information Transmission by Means of Electrical Biofields. In *Electromagnetic Bio-Information*, Fritz Albert Popp et al., eds., 1979, pp. 55-79.
- [7] Günther Becker. Communication between Termites by Means of Biofields and the Influence of Magnetic and Electric Fields on Termites. In *Electromagnetic Bio-Information*, Fritz Albert Popp et al., eds., 1979, pp. 95-106.
- [8] Bernhard Ruth. Experimental Investigations on Ultraweak Photon Emission. In *Electromagnetic Bio-Information*, Fritz Albert Popp et al., eds., 1979, pp. 107-121.
- [9] Helmut A. Fischer. Photons as Transmitter for Intra- and Intercellular Biological and Biochemical Communication – The Construction of a Hypothesis. In *Electromagnetic Bio-Information*, Fritz Albert Popp et al., eds., 1979, pp. 175-180.
- [10] Igor Jerman. Electromagnetic Origin of Life. *Electro- and Magnetobiology* 17(3): 401-413 (1998)
- [11] Allan Fraser and Allan H. Frey. Electromagnetic emission at micron wavelengths from active nerves. *Biophysical Journal* 8: 731-734 (1968).
- [12] Shou Sin-Sung. A Possible Biophotochemical Mechanism for Cell Communication. In *Electromagnetic Bio-Information*, Fritz Albert Popp et al., eds., 1979, pp. 151-174.
- [13] A.H. Jafary-Asl AH and Cyril W. Smith. Biological dielectric in electric and magnetic fields. *IEEE Annual Report Conference on Electrical Insulation and Dielectric Phenomena*, 1983, p. 350.

- [14] H.A. Pohl. AC field effects of and by living cells. In Chiabrera A. et al., eds., *Interactions between electromagnetic fields and cells*, NATO ASI Series A, Life Sciences, Plenum, NY (1985), pp. 435-456.
- [15] J. Kent Pollock and Douglas G. Pohl. Emission of radiation by active cells. In *Biological Coherence and Response to External Stimuli*, Herbert Fröhlich, ed., Springer Verlag, Berlin, 1988, pp. 139-147.
- [16] Sergei P. Sit'ko, Yuriy A. Skripnik and Aleksey F. Yanenko. Experimental Study of Mm-Range Radiation from Certain Objects. *Physics of the Alive* 6(1): 15-18 (1998).
- [17] Allan H. Frey. Is a toxicology model appropriate as a guide for biological research with electromagnetic fields? *Journal of Bioelectricity* 9(2):233-234 (1990).
- [18] Gerard J. Hyland. Physics and biology of mobile telephony. *The Lancet* 356:1833-1836 (2000).
- [19] Personal communication, December 2018.
- [20] Igor Y. Belyaev. Duration of Exposure and Dose in Assessing Nonthermal Biological Effects of Microwaves. In *Dosimetry in Bioelectromagnetics*, CRC Press 2017, pp. 171-184.
- [21] Igor Y. Belyaev et al. Resonance effect of millimeter waves in the power range from 10^{-19} to 3×10^{-3} W/cm² on *Escherichia coli* cells at different concentrations. *Bioelectromagnetics* 17: 312-321 (1996).
- [22] W. Ross Adey. Testimony before the Ad Hoc Subcommittee on Consumer and Environmental Issues of the Committee on Governmental Affairs, United States Senate, August 10, 1992.
- [23] Neil Cherry. *Evidence of brain cancer from occupational exposure to pulsed microwaves from a police radar*. Lincoln

University, August 15, 2001.

[24] Neil Cherry. *Safe Exposure Levels*. Lincoln University, April 25, 2000.

[25] Robert O. Becker. Personal communication, May 15, 1986.

[26] Robert O. Becker. A theory of the interaction between DC and ELF electromagnetic fields and living organisms, *Journal of Bioelectricity* 4(1):133-140 (1985).

[27] Robert O. Becker and Gary Selden. *The Body Electric: Electromagnetism and the Foundation of Life*, NY: William Morrow 1985, pp. 312-313.

[28] William Bise. Hearings before the Committee on Commerce, Science, and Transportation, United States Senate, Ninety-Fifth Congress. First Session on Oversight of Radiation Health and Safety, June 16, 17, 27, 28, and 29, 1977, Serial No. 95-49, pp. 1220-1223.

[29] Sheldon Meyers. Oversight Hearing before the Subcommittee on Water and Power Resources of the Committee on Interior and Insular Affairs, House of Representatives, First Session on Health Effects of Transmission Lines, October 6, 1987, Serial No. 100-22, p. 166.

[30] Reba Goodman and Martin Blank. Magnetic field-induced stress responses in biological cells by use of cell phones. *EBEA 2001. 5th International Congress of the European BioElectromagnetics Association (EBEA). 6-8 September 2001, Helsinki, Finland. Proceedings*, pp. 197-198.

[31] Yury G. Shckorbatov et al., Modification of electrokinetic properties of nuclei and membrane permeability in human buccal epithelial cells under the influence of low-level microwave radiation. *EBEA 2001*, pp. 204-206.

[32] Andrew Wood, Rohan Mate and Ken Karipidis. Meta-analysis of in vitro and in vivo studies of the biological effects of

low-level millimetre waves. *Journal of Exposure Science & Environmental Epidemiology* 31: 606–613 (2021).

[33] Stefano Cucurachi et al. A review of the ecological effects of radiofrequency electromagnetic fields (RF-EMF). *Environment International* 51: 116-140 (2013), Table 4.

[34] Maria N. Sadchikova. State of the nervous system under the influence of UHF. In *The Biological Action of Ultrahigh Frequencies*, A. A. Letavet and Z. V. Gordon, eds., Academy of Medical Sciences, Moscow, 1960, pp. 25-29.

[35] Maria N. Sadchikova. Clinical manifestations of reactions to microwave irradiation in various occupational groups. In *Biologic Effects and Health Hazards of Microwave Radiation: Proceedings of an International Symposium, Warsaw, 15-18 October, 1973*, P. Czerski et al., eds., 1974, pp. 261-267.

[36] Abraham Lilienfeld. *Evaluation of Health Status of Foreign Service and Other Employees from Selected Eastern European Posts*. Johns Hopkins University, Department of Epidemiology, Baltimore, MD, prepared for Dept. of State, DC Office of Medical Services, U.S. Dept. of Commerce, National Technical Information Service, July 31, 1978.

[37] Liliya M. Fatkhoutdinova. Hemodynamic indices in VDT users with different exposure to electric and magnetic fields and controls," *EBEA 2001*, pp. 292-294.

[38] Vladimir N. Binhi and Robert J. Goldman. The Ion Interference and Electric Field-Induced Wound-Cell Proliferation. In BEMS Twenty-Second Annual Meeting in Cooperation with the European Bioelectromagnetics Association, Abstract Book. The Technical University, Munich, Germany, June 11-16, 2000, pp. 11-12.

[39] Bertil Persson, Leif Salford, and Arne Brun. Blood-brain barrier permeability in rats exposed to electromagnetic fields used in wireless communications. *Wireless Networks* 3:455-461

(1997).

[40] Henrietta Nittby, Gustav Grafström, Jacob L. Eberhardt et al. Radiofrequency and Extremely Low-Frequency Electromagnetic Field Effects on the Blood-Brain Barrier. *Electromagnetic Biology and Medicine* 27: 103-126 (2008).

[41] Dimitris J. Panagopoulos. Analyzing the health impacts of modern telecommunications microwaves. In L. V. Berhardt, ed., *Advances in Medicine and Biology*, vol. 17, Nova Science Publishers 2011, chapter 1.

[42] Carl F. Blackman et al. Induction of calcium-ion efflux from brain tissue by radiofrequency radiation. *Bioelectromagnetics* 1:35-43 (1980).

[43] Suzanne M. Bawin, Leonard K. Kaczmarek and W. Ross Adey. Effects of modulated VHF fields on the central nervous system. *Annals of the New York Academy of Sciences* 247: 74-80 (1970).

[44] Sisir K. Dutta et al. Microwave radiation-induced calcium ion flux from human neuroblastoma cells: dependence on depth of amplitude modulation and exposure time. In *Biological Effects of Electropollution*, Sisir K. Dutta and Richard M. Millis, eds. Information Ventures, Phila., 1986, pp. 63-69.

[45] Jean-Louis Schwartz, Dennis E. House and Geoffrey A. R. Mealing. Exposure of frog hearts to CW or amplitude-modulated VHF fields: selective efflux of calcium ions at 16 Hz. *Bioelectromagnetics* 11: 349-358 (1990).

[46] Kumud K. Kunjilwar and Jitendra Behari. Effect of amplitude-modulated RF radiation on cholinergic system of developing rats. *Brain Research* 601:321-324 (1993).

[47] Christian Holtze, R. Sivaramakrishnan, Markus Antonietti, et al. The microwave absorption of emulsions containing aqueous micro- and nanodroplets: A means to optimize microwave

heating. *Journal of Colloid and Interface Science* 302: 651–657 (2006).

[48] Quoted by Max Rauner in *Zeit Online*, August 21, 2006.

[49] Chaozhi Wan et al. Femtosecond dynamics of DNA-mediated electron transfer. *PNAS* 96 (11) 6014-6019 (1999).

[50] Corinna Wu. An Electrifying DNA Debate: New evidence explains how DNA conducts charge," *Science News* 156(7): 104-106 (1999).

[51] Hans-Werner Fink and Christian Schönenberger. Electrical conduction through DNA molecules. *Nature* 398: 407-410 (1999).

[52] Charles Polk. Implications of Measured Electrical Conductivity of DNA for Bio-Effects of E.M. Fields. In BEMS Twenty-Second Annual Meeting, 2000, pp. 22-23.

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Where Have All the Insects Gone?

[Where Have All the Insects Gone?](#)

Satellites Are Taking Them, Every One

by [Arthur Firstenberg](#), [Cellular Phone Task Force](#)

March 21, 2024

The least noticed and greatest assault on Earthly life rains on us from the sky. Nature's wires strung above us from horizon to horizon, carrying the electricity that helps power our bodies, and the information that informs our growth, healing, and daily lives, now carries dirty electricity – millions of frequencies and pulsations that confuse our cells and organs, and dim our nervous systems, be we humans, elephants, birds, insects, fish, or flowering plants.

The pulsations pollute the Earth beneath our feet, surround us in the air through which we fly, course through the oceans in which we swim, flow through our veins and our meridians, and enter us through our leaves and our roots. The planetary transformer that used to gentle the solar wind now agitates, inflames.

The lake pictured above is the United Kingdom's largest. Located in Northern Ireland, Lough Neagh swarms so densely with flies every spring and summer that residents shut their windows against the living smoke. Clothes left out on a line are covered with them. So is any windshield on a vehicle traveling around the lough's 90-mile shoreline. Until 2023.

Last year, unbelievably, no flies were to be seen. Windshields and hanging clothes were bare of them. None flew into open windows. Other species that used to eat them were gone as well

– ducks, frogs, fish, eels, and predatory insects. Fly larvae were not there to keep the lake bottom clean. Little was alive in the lough except an overgrowth of algae. “Has the ecosystem of the UK’s largest lake collapsed?” asked *The Guardian* in a [February 19, 2024 article](#).

Has the ecosystem of the entire Earth collapsed? we ask, for the same is happening all over, according to reports I have been receiving for a year from almost everywhere on every continent.

56 Years of Global Vandalism

On June 13, 1968, the United States completed its launch of the world’s first constellation of military satellites. Twenty-eight of them, more than twice as many satellites as were in orbit around the Earth until then, were lofted to an altitude of 18,000 miles, in the heart of the outer Van Allen radiation belt. The “Hong Kong” flu pandemic began two weeks later and lasted for almost two years.

For the next three decades, the skies slowly filled up with hundreds of satellites, mostly for military purposes. Then in the late 1990s, cell phones became popular.

On May 17, 1998, a company named Iridium completed its launch of a fleet of 66 satellites into the ionosphere, at an altitude of only 485 miles, and began testing them. They were going to provide cell phone service to the general public from anywhere on earth. Each satellite aimed 48 separate beams at the earth’s surface, thus dividing the planet into 3,168 cells. Reports of insomnia came from throughout the world.

Iridium’s satellites began commercial service on September 23, 1998. The effect was devastating. I contacted 57 people in my network in 6 countries, plus two nurses, one physician, and a support group for patients. 86% of the people I interviewed, and the majority of patients and support group members, became ill on Wednesday, September 23 exactly, with headaches,

dizziness, nausea, insomnia, nosebleeds, heart palpitations, asthma attacks, ringing in the ears, etc. One person said it felt like a knife went through the back of her head early Wednesday morning. Another had stabbing pains in the chest. Some, including me, were so sick we weren't sure we were going to live. We were all acutely ill for up to three weeks. I suddenly lost my sense of smell on September 23, and did not recover it for six years. Mortality statistics from the U.S. Centers for Disease Control revealed a 4% to 5% rise in the national death rate beginning the last week in September and lasting two weeks. Some people reported a reddish sky the night of September 23.

In early December 1998, I again received telephone calls from far and wide asking me what had changed. Orbcomm, providing data service to industries, had gone commercial on November 30 with 28 satellites orbiting 500 miles up.

On July 25, 1999, another company, Globalstar, achieved worldwide cell phone coverage with 32 satellites, 876 miles up, and began testing. I again received calls from people who were certain the earth felt different again.

On February 28, 2000, Globalstar completed its constellation of 48 satellites and went commercial. Nausea, headaches, leg pain, and respiratory problems were widespread, both among people who called themselves electrically sensitive and people who did not. The effects were felt starting on Friday, February 25, the previous business day.

Iridium, which had gone bankrupt in August 1999, resumed full commercial cell phone service worldwide on March 30, 2001 after signing a contract with the U.S. military. The night of March 30 was accompanied by an even more intense and widespread red sky than the one that had accompanied its initial launch of service two and a half years previously. A red aurora was seen in the northern hemisphere as far south as Mexico, as well as in the southern hemisphere. There was a

catastrophic loss of Kentucky race horse foals in late April and early May, and since mares abort several weeks to a month after a viral infection or other triggering event, this put the triggering event at about the end of March. Similar foaling problems were reported at the same time from Ohio, Tennessee, Pennsylvania, Illinois, Maryland, Texas, northern Michigan, and Peru. Breeders also reported both newborn and older horses with unusual eye problems, and adult horses with pericarditis.

On June 5, 2001, Iridium added data to its voice service, including connection to the Internet. Hoarseness was a prominent complaint of many who contacted me during the next few weeks.

For the next two decades, Iridium and Globalstar were the only providers of satellite phones. Enter SpaceX in 2019.

In November 2019, SpaceX began regular launchings of 60 satellites at a time into even lower orbit, only 326 to 350 miles up, and I began to receive reports from people around the world of headaches, dizziness, insomnia, exhaustion, skin problems, feelings of oppression, and heart problems. Almost 200 people in my network reported heart palpitations, heart arrhythmias, or heart attacks.

In March 2021, the density of signals polluting the ionosphere increased significantly. SpaceX, which had already launched more than 1,000 Starlink satellites and was testing them on a limited number of customers, launched 60 satellites on March 4, 60 more on March 11, 60 more on March 14, and 60 more on March 24. A competitor, OneWeb, also launched 36 satellites on the night of March 24. More satellites were launched into space in that month and on that day than ever before. And on March 24, SpaceX dramatically increased the speed of its satellite internet connections to over 400 Mbps.

On March 24, 2021, a threshold was passed, and the

deterioration of life on Earth accelerated tremendously. Some people reported not feeling well beginning on March 4 or March 11, but 1,000 people in 50 countries emailed or called me on or after March 24 confirming my own awareness that something terrible was happening to our planet. The reports came from people in New York City, Paris and London, and from people living in remote locations miles from the nearest cell tower. They came from people who used no wireless technology at all, and from people who had smart meters on their homes and 5G antennas outside who emailed me from their cell phones. They came from people young and old. It did not matter, they all had similar experiences. Everybody, whether they were previously ill or not, became suddenly and profoundly sicker on March 24 or March 25, depending on the time zone in which they lived, and most slept little or not at all the night of March 24.

People reported that not only they, but also their spouse, children, parents, neighbors, friends, coworkers, clients, and everyone else they knew were sick, exhausted and irritable on March 24 or 25 and had trouble sleeping. Some reported that their pets or farm animals were sick at the same time – cats, dogs, chickens, goats, cows.

The details were consistent. They could not sleep for one, two, three or more nights, beginning March 24 or 25. Some took melatonin or other sleeping aids and still could not sleep. They had pain and itching, either all over or in specific parts of their body, commonly their feet and legs. They had headaches. They had muscle spasms. They were weak and exhausted and could hardly stand or walk, and some tripped or fell. They had skin rashes. They were dizzy and nauseous, and had stomach aches and diarrhea. The ringing in their ears was suddenly more intense. Their eyes were red, or inflamed, or their vision suddenly worsened. They had heart palpitations, rapid or irregular heartbeat, or suddenly high or very low blood pressure. A few had nosebleeds, or coughed up blood, or

their eyes popped a blood vessel. They were anxious, depressed or suicidal, and irritable.

Since then, SpaceX has been launching rockets carrying dozens of satellites at a time on a weekly or biweekly basis, filling the heavens with luminous objects that interfere with astronomy, spewing chemicals that are destroying our planet's protective ozone layer, filling the upper layers of the atmosphere with water vapor that should not be there and that is increasing the current in the global electric circuit and the violence of thunderstorms, and cluttering up space with satellites that are nothing but solar arrays and computers that are continually failing, wearing out, and having to be replaced, and which are deorbited to burn up in the lower atmosphere, filling it with metals and toxic chemicals for everyone to breathe – and altering the electromagnetic environment of the Earth that had not changed in three billion years and that life below depends on for its vitality and survival.

Last Thursday morning, from Boca Chica, Texas, SpaceX successfully launched its Starship – the largest rocket ever built, the one it wants to ferry men and women to Mars with – into space for the first time. And on Friday it launched yet another 23 Starlink satellites to bring its total polluting the ionosphere up to more than 6,000, now not only for internet communication with rooftop dishes but for direct communication with handheld cell phones. The 6,000 satellites are also now communicating directly with one another, wrapping the Earth with pulsating lasers carrying 42 million gigabytes of data every single day.

Everyone I know has had trouble sleeping and been suffering since last Wednesday, the night Starship launched.

Since March 24, 2021, not only has human health deteriorated, but the biodiversity of the Earth, everywhere, has plummeted. People have not so much noticed the decline of the larger

wildlife like wolves, bears, lions and tigers, which were already scarce, but they are shocked by the total disappearance of the smallest animals that were only recently so common you couldn't open your windows without them flying in. They are shocked by the disappearance of all the frogs that used to swim in their ponds, the birds that used to nest in their trees, the worms that used to slither on the ground, the insects that used to fly through their windows and cover their clothes hanging on the line. My newsletters of [March 29](#), [June 21](#), [September 20](#), [October 17](#), and [November 28](#), 2023 carried major stories about this from various parts of the world. My newsletters of [December 5](#) and [December 26](#), 2023, and [January 9](#) and [February 6](#), 2024 quoted from individuals all over the world who have emailed or called me, and I have a huge backlog of more such reports that you can read when I publish them in the future.

If we want to have a planet to live on, not only for our children but for ourselves, the radiation has to stop. Not only do the cell towers have to come down that are so ugly to look at, but also the cell phones that we hold in our hands and have become so dependent on, and the satellites that are squeezing all the life that remains out from under them. We are running out of time.

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[Arthur Firstenberg: An Autumn's Tale](#)

New International Coalition: Global Radiation Emergency

[New International Coalition: Global Radiation Emergency](#)

by [Arthur Firstenberg](#), [Cellular Phone Task Force](#)

February 28, 2024

Global Radiation Emergency is a just-formed coalition of individuals, organizations and scientists on six continents whose mission is to save Planet Earth. Birds are disappearing from our skies, bees from our flowers, insects from our forests, worms from our soils, animals from their dens, and health from our bodies.

Our coalition will be contacting leaders in science and medicine, directors of environmental organizations, law institutes, government officials, astronomers, universities, religious leaders, and groups representing parents, children and schools. Our website is radiationemergency.org.

The *Electrosmog Policy Brief*, so far in [English](#), [français](#), [italiano](#), [svenska](#) and [한국어](#), will be our roadmap and our guideposts. The *Radio Wave Packet*, so far in [English](#), [français](#), [norsk](#) and [Nederlands](#), will be a basic tool with which to penetrate the wall of denial, to place wireless technology alongside climate change on the world's agenda of greatest assaults on life and most immediate threats to survival.

If you or your organization wants to join our coalition, please send a message to Global Radiation Emergency on the [contact page](#) of the website.

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Rainbow Lorikeets Dropping From the Sky

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And Many Other Such Reports From Around the World

by [Arthur Firstenberg](#), [Cellular Phone Task Force](#)

February 6, 2023

Last Wednesday, ABC News in Australia [carried a story](#) about hundreds of rainbow-colored parrots falling dead out of the sky along a swath of the east coast of that country centered on Brisbane, the capital of Queensland. In 2010, around the time the first 4G cell towers were being built, ornithologists described the first cases of a mysterious disease that paralyzed and killed these stunning creatures. During the summer of 2019-2020, when the first 5G towers went into service, 1,500 rainbow lorikeets rained out of the skies. And last week, when more than 200 dead lorikeets were collected in just a few days, it made headlines again.

This disease, which has been named Lorikeet Paralysis Syndrome, has puzzled scientists. It is not encephalomyelitis, which was described in the 1970s as an uncommon disease in these birds that began with clenching of the feet progressing to complete rigid paralysis. The brains and spinal cords of such birds were abnormal, showing edema, cell death,

degeneration of neurons, and other gross abnormalities. But birds with Lorikeet Paralysis Syndrome are limp, not rigid, and have *no* visible abnormalities. In the past 14 years, ornithologists have been at a complete loss to explain it. Tests for all known pesticides and fungicides have come back negative, and scientists have ruled out infectious diseases. And the same syndrome is being seen in flying foxes. An [article in the Australian Veterinary Journal](#) states:

"Manifestations of this disease range from the inability to fly and hindlimb weakness and ataxia, to a flaccid paralysis of all limbs and the neck, inability to blink, paralysis of the tongue, inability to swallow and voice change. The number of cases each year ranges from hundreds to thousands, making it one of the most important wildlife diseases and animal welfare concerns in Australia."

Muriel in the UK, who brought this to my attention, writes:

"What puzzles me is that people cannot see what is going on and they do not understand why these beautiful birds are dying. Even reading the symptoms will give you a clue!"

"I observe wildlife here, the birds, the bees who come to my garden. The birds get confused, and the bees, I only have a handful in the Summer now. Quite a lot of cats have been lost where I live. Too many from December to January. I really think that cats are getting confused and are getting lost as a result."

Reports from around the world (continued)

Persephone writes from California: "I've had a dozen free range farmyard chickens for the last 5 years, supplemented each summer with new chickens obligingly hatched by some of the members of the flock. Every winter until this one, their egg production would drop off, but only to about half the production of the rest of the year. This winter, they stopped laying completely, even the youngest hens. This happened in

early November, and there have been no eggs since. Knowing that emfs negatively affect reproduction in many species, I wonder if the increasing emf smog has finally overcome their reproductive capacity completely in these colder months. Will they start laying again in spring? I don't know."

Steve writes from Ontario: "I too have noticed a decline of birds at my feeders. I live just east of Toronto on Lake Ontario. What can we do?"

Felicity writes from Australia: "Our experience here in Mid North South Australia with the massive wind turbines is horrible. There are no bats left here, or eagles."

Tapani writes from Finland: "It is my observation that mosquitoes and other insects have decreased dramatically in the tropical countries. I have been working in the tropics since 1986. Until recently, I always carried two mosquito nets with me and used them always wherever I slept, at home, and in hotels. Also in Finland in summer. It was the most important item in my bag.

"Now I hardly need my mosquito nets. I just returned from the Philippines where I didn't have to use them at all. In the Mindoro jungle island there were some mosquitoes outside at night but not many. The same is true in other tropical countries where I recently visited, Singapore, Nicaragua, Honduras, Costa Rica. The last time I used my nets was in remote Eastern Finland last summer because there were flies in the house.

"Insects, birds, and frogs have almost disappeared. The green movement doesn't talk about the obvious reason."

Ron writes from Australia: "Years ago I had what I hope was a precognizant dream. EVERYTHING was turned off and it felt like a whole body orgasm, so intense it woke me up, like a sense of release, I knew exactly what it was and my senses stretched out into the surrounding forest like there had been a magnet

ready to plug me back into nature and I knew there was an antichinus nesting under the floor, a snake slithering down the hill about 50 meters away. I miss the birds and insects and the sound of a healthy forest so much, I am sure it will take off again if we just stop. It isn't too late yet.

Davidina writes from England: "I am 84 years old. I have always been a keen lover of Wildlife and in particular Butterflies and Birds. For the past 5 or 6 years, ever since a 5G mast was erected nearby, my husband and I have noticed with great alarm that there is a huge decrease in ALL Insects, Butterflies and Birds. In fact, we saw virtually NONE of any of these creatures during the past 12 months, and the numbers of these have been VERY few for at least the past two or three years. I am very, very sad at what has happened. The world is not the same place that I grew up in and loved as a small child. I despair!"

Jean-Jacques writes from France: "During these last years , after driving your car for hundreds of kilometers, your windshield is as clean as when you started."

Carlotta writes from England: "I too have noticed here in Gloucestershire, the decline in my back garden, so much so since the Covid years 2020 to now. That summer we had great weather for planting food stuffs and with it there were many insects in our garden, however there seemed to be hardly any last year, not many bees and no ladybirds at all! Flies are gone from kitchens and we no longer need to cover our food. The flies that used to hit the windscreen on journeys no longer exist! What can we do?"

Danielle writes from Namibia: "I'm seeing fewer bees and insects. It's strange is it not? We want to communicate, but it's killing our world."

Peter writes from Switzerland: "Where I grew up, in rural Switzerland, insects, birds, bees, bumblebees, dandelions in

the garden. . . it was paradise. Much of it is gone today. Been replaced by literally a forest of antennas."

Alec writes from France: "It is sad isn't? In our French farm village it's exactly the same story."

Leroi writes from France: "I notice something in human beings since the 1990s: there is an expanding number of disabled children. I lived in Belgium until the year 2003; there was a tower on my street, in the middle of the village, with 3 tiers of cell phone antennas on it. On my street alone I counted 14 disabled babies. Now these families are definitively in great difficulties."

Charmaine writes from Scotland: "I live in the far north of Scotland in a small village. I saw one cabbage white butterfly in my flower garden last summer (2023), very very few bumble bees and little to no other flying pollinators. One single Jenny wren, one pair of blackbirds, no blue tits, no thrushes, chaffinches and no other small birds except a single Robin. We used to have a very bad period during summer when there were so many biting midges just at the time the swallows and martins arrived that it was uncomfortable to go outside. I can't remember being bitten at all last summer and there were few swallows and martins racing down the river, skimming the surface. I saw no moths this year either and heard only one or two squeaks from bats. But then if there are no insects these wonderful creatures will leave. What we do have is a reasonably noisy house sparrow group thanks to the creeper plant on the side of a neighbour's house. We also have a small group of starlings nesting in the old fisherman's storage facility built from stone blocks by the harbour. It's no longer really used by fishermen as the herrings were fished out here so that is also a thing of the past.

"Our house is opposite a small, well-flowing river and near the ocean so we should have much wildlife and insects. Sadly we now do not. Signal towers have gone up and the dratted wind

turbines up the braes and in the fields. They have also put up 80 wind turbines in the North Sea that we can see from the land and we know there is trouble from those with the shellfish and crab populations in the North Sea. I so hate what is happening and even in a rural setting, these much needed and loved creatures are missing."

Judith writes from England: "Greetings from south coast UK. I have designated my little home and garden to be an organic Nature Reserve, and do what I can to support all Life, so have various Spiders indoors, many hibernating Snails, and some Frogs & Toads. Flies and Moths are very rare, as are Butterflies, and Ladybirds. I haven't checked the ants recently. There's still a community of Blue-tits and some visiting Starlings in the big bramble hedge, and there were some edible blackberries this year, though the pear tree had a plentiful crop which didn't ripen properly. Worms and Woodlice seem still in evidence. I left all the thistles to grow big and was blessed to see some Bees – also to see that Snails love Thistles! Foxes come through quite often, at night, but I haven't seen a Hedgehog in a long while."

Michael writes from California: "Living in Santa Cruz for over 40 years I have noticed the same wildlife and insect declines."

Margaretha writes from Australia: "I have an ulcerated toe and often it is not covered so that it gets air, but I need to be careful in case a fly comes in and sits on it. I have had it happen once and it was terrible."

"But now there are so few flies. When visitors come and the door opens, we always needed to shoo the flies away. Now, none seem to be around. It is Summer in Australia and it is a time for plenty of flies."

Pamela writes from England: "I live on Dartmoor, and am finding many less birds and insects than when I came here in

1990.”

Kristel writes from Switzerland: “Thank you for informing us and registering all that is observed in the concrete world as oppose to the virtual where so many spend their entire days nowadays. In the west part of Switzerland where I’ve always lived, I noticed the same as all the other people’s reports in your last newsletter.

“I lived near the lake when I was a child and the frogs’ chants were so loud! They stopped around 1999-2000 here. I started gardening around that turn of the century. In my urban area then, around 2001-2002 I started noticing bumble bees and bees having strange behaviors – flying around in circles, being not able to fly, dying ones who looked before dying totally lost and crippled. The wild bee colonies left my garden. No more butterflies too, except the white ones. I also noticed more and more diseases in my garden.

“I got full-blown EHS from 2010-2015, thanks to the new smartphones and the 4G roll-out. So I fled to the countryside to an area with less cell phone coverage. I was so happy to notice again bumble bees, honey bees, butterflies and wild insects in my garden. There were a lot of birds too. Especially in the winter times.

“But around the spring of 2019 there was a huge mass of dying trees in the surrounding forests. I live at the foot of the Jura Mountains. It’s mostly firs and beech trees. In the media they say it is because of droughts and warmer temperatures. But the amount of dead trees was much more massive in the precise area of the Jura where the military radar was beaming. Around 2020 the military bought a new American radar, much more powerful, that is now covering a larger area, not only the upper mountain front but also portions of the coastline of the Neuchâtel lake.

“In the years after 2020 I noticed dying trees everywhere and

farther outside the radar beam. They are cutting the dying trees at a fast rate. When you go for a walk in the forests it looks more like undergrowth forests than a real forest with mature trees. And this winter I was shocked to look at the Jura. Where it use to be all green in the wintertime now it's all brown. There are almost no firs or conifers left. I also went across big piles of hundreds and hundreds of cut conifer trunks. If I can judge from the size they were centenarians or even older firs. I am so sad to witness the extinction of these magical beings. As I know how much they can bring to Humanity. How you feel at peace, calm, and breathe deeply around those majestic beings. Humans really need their energy now just in order to stay grounded in these crazy times.

"For the last two winters I have noticed fewer and fewer birds when there used to be so many at the bird feeder. Also no more squirrels. No more hares seen. Blackbirds are fewer and smaller. Three times I saw a dead male finch lying on the ground with no sign of injuries in my garden and in the area. I saw for the first time in my life a rook with white feathers on his tail. This summer there were no more bats and so a lot more mosquitos. In my neighborhood thuya's hedges are dying. I also notice more and more diseases in my garden. My health is also declining and my friends' health too. Everybody seems exhausted and get colds really frequently, even in the summer time and they have a harder time to get rid of them. It seems to me that general immunity for all living beings in my area has dropped. I don't look at the stars anymore as I see all these new satellite lights that destroy all the beauty and magic of our nights.

"The living world is dying, and no one wants to know the real cause. Everybody's looking at their screens and talking about carbon emissions and demanding more electrical energy, more innovations, more electric technology. Here in Switzerland they plan a 30% increase in electricity production the next few years!

“Today [a news item](#) just hit the headlines. The title is « Why is biodiversity dying out faster in Switzerland than elsewhere? ». In this article they point in part at our population density. But no words about e-radiation. Right, there’s so many people living here. In 2022, 220,4 inhabitants per square kilometer including mountains and lakes. And most of them with one or more smartphones. Swiss people love to say they are « advanced users of innovative technology ». If you look at a Swiss map there are antennas and electrical power lines everywhere. [In this article](#) from the Swiss government it is said that « In Switzerland, mobile communication services are almost fully covered ». But despite that they continue to erect new masts saying that we need always more due to the ever increasing flux of data.”

Alison writes from Florida: “In Florida we have ‘no see um’s’ in the warm months. I’ve seen or felt no evidence of them for the past 2 summers.”

Susie writes from Georgia: “The chilling silence and lack of critter noise is terrible. Thirty years ago, at dusk, when I took my evening walk in the streets of University City in St. Louis, Missouri, there were gigantic, beautiful swarms of fireflies everywhere – in every patch of grass, wherever it was green, there was a glowing fog of fireflies.

“I did not notice the sandhill crane migration this year. Millions of Starlings flew overhead at St. Mary’s Academy in September. Typically, the starling flocks we have seen annually were about 300-500 birds – nothing of this magnitude before now.”

George writes from Australia: “Where I live in Gold Coast, the birds (robins to eagles), butterflies, frogs, cane toads, bees, cicadas, aphids, insects and moths, spiders, flying foxes and the scents of native scented flowering native trees have disappeared.”

Susan writes from Cape Cod, Massachusetts: “Birds are lessening. May 2023 was the beginning of a normally big tick season. Ticks were everywhere for a week, then the next week they were gone. This fall another cycle started and within a week there were none. Bees have definitely lessened.”

Hannah writes from South Carolina: “I moved to South Carolina 3 years ago before the pandemic. We noticed how great it was because there was so much wildlife here compared to the Northeast. Three years later and it is all gone. No one says anything... no one cares...”

Diana writes from the island of Samos, Greece: “Insects and birds are declining rapidly worldwide. It’s no good trying to throw all the blame on pesticides or other chemical toxins, because there are still enough places in the world where pesticides and other such poisons are not in the environment, such as where I live. If pesticides were the problem, we wouldn’t be seeing huge declines in insect and bird populations here, and particularly not in the area where I live.”

Diana has documented not only the disappearance of most insects, but severe deformities in those that remain: butterflies with deformed wings, scorpions with short tails, butterflies that are half their normal size, dragonfly populations in which females outnumber males 100 to 1, instead of the normal ratio of 1 to 1.

She continues: “We have lost almost all species of beetles, lacewing and other flies, most of the moths (and all the larger moths except for a few hummingbird moths), many butterflies, virtually all wasps and hornets, and many species of wild bees including wild honeybees. There are almost no mantises, no katydids, and very few grasshoppers and crickets. There are a few slugs, but no snails. There are very few woodlice, earwigs, millipedes, centipedes or silverfish, and very few web-spinning spiders. No species of insect remains

unaffected; all species have either declined or vanished altogether, including soil insects such as earthworms (we have only seen two this year) grubs (none) and even ants. When the queens hatched after the first rain, there were very few of these flying ants compared to other years—a few dozen compared to hundreds. Many plants are not being pollinated properly...

“As the insects vanish, so do other creatures that depend on them. Here on Samos, I have noticed a huge decline in lizards of all sorts, including geckos and chameleons, all of which live on insects. Bats have also declined hugely. Hedgehogs, which are snail-eaters, are locally extinct. As the insects vanish, the food we humans need becomes harder to grow. When the insects are gone, we too will starve.

“Insectivore birds are declining very rapidly, and this past year we saw many fewer flycatchers, shrikes, bee-eaters, hoopoes, swifts, swallows and martins than we used to have. There were no night-jars at all. Insectivores on migration don't stay long these days, because they can't find enough to eat. Most garden songbirds are insectivores, and I fear the day when we will no longer wake up to the songs of robins, blackbirds, song-thrushes, black-caps and other warblers. If wild plants aren't pollinated, the seed-eaters such as chaffinches and goldfinches will perish too.”

Diana states in no uncertain terms: “Are there biologically safe power levels that would protect life on this planet? ... the answer is no. I think we must choose: wireless technologies or nature. And since we can't live without nature – wireless technologies cannot feed us – we must choose nature if we want to survive.”

Jeff called me from Alberta. “We're seeing effects on birds, and no bugs on our windshields. I think we're slowly getting cooked,” he told me.

Andrew emailed me from England on January 26. “There was a

little skit on BBC Breakfast this morning," he wrote. He quoted the program: *"Fewer wild birds are visiting UK gardens, with greenfinches, starlings and sparrows seeing the greatest decline."*

Where there are few cell phones in use, nature is still abundant. Birds are fleeing from other areas and taking refuge there. Insects are still thriving there, even where there is a lot of agriculture and therefore pesticides:

Suzan writes from England: "I live in East Anglia. The population here is fairly low, and mobile phones tend to lose the signal. The nearest town, with 11,000 inhabitants, is 2 miles away. The nearest town with 5G is 10 miles away, and the coastline of the North Sea is 10 miles away. There are many woods and substantial agricultural land here.

"I have seen an increase in birds I've never seen before, millions of insects (ants, flies, wasps, bees, ladybirds, butterflies, hornets etc.). Grass, thistles and trees grow in abundance. Even my Jack Russell terrier still has a spring in his step at nearly 17 years of age.

"I chose to live here after being diagnosed with cancer in 2011 and refusing all conventional treatments. I believe that technology needs to turn the volume right down but people are almost attached to mobile devices intravenously and wonder why they get sick."

Jack writes from Ontario: "We have a cottage near Bon Echo provincial park. We are in a relatively isolated area on a lovely little lake. We feel fortunate and with very few cell phones around we hope to continue to make our area a healthy place for wildlife. We have noticed a decline of some insects but we do have lots of small birds having a smorgasbord in the trees around us. To this point we feel we are doing ok but have noticed there are no honeybees around us and only one or two Monarchs. We have planted milkweed but to this point no larvae or monarchs.

“However, we do have water snakes, garter snakes and frogs, and even a family of beavers down at the end of the lake. The frogs seem to be in decline a bit but with the water snakes there must be plenty to sustain them. The lake has many fish including bass, walleye and pike.

“A couple of blue herons have made their home across the lake as well as a family of loons which took out a family of geese.. Loons do not share well in their claimed territory. The family of screech owls are a ‘hoot’ at night, particularly the babies, and the pileated woodpeckers make short work of deadwood. They love the black carpenter ants.

“Lots of mosquitoes, blackflies, deer and horseflies that tell us they are still in charge for May-July, at least until the dragonflies are done with them.

“Just a positive observation but I do worry for the future.”

I can confirm the above observations. At the end of August 2023, I took a trip up to South Dakota. In Nebraska and Kansas, although I could see cell towers in the distance everywhere we went, there were more farms than people and few cell phones were in use. I was amazed not only at how much better I felt there, but at how many birds I saw while driving on roads through endless fields of corn and soybeans. I was also amazed at all the insects we had to clean off our windshield.

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World Cup Radiation Event

[World Cup Radiation Event](#)

by [Arthur Firstenberg](#), [Cellular Phone Task Force](#)

January 18, 2024



On **February 9-11, 2024**, **world-class skiers** from **around the globe** will gather at Lake Placid, New York for the purpose of jumping off a cell tower.

A colleague alerted me to this horror. There will be an FIS Ski Jumping World Cup Event at Lake Placid in a few weeks, hosted by the Olympic Regional Development Authority (ORDA). She and her daughter visited the location as tourists last week. She took the above photograph of the tower after they had climbed it. She writes:

“As we were getting to the top of the tourists’ indoor stairs (after the elevator ride) at the Olympic Ski Jumping Complex in Lake Placid, NY, I suddenly felt faint and dizzy, and began to lose my balance. So I asked my daughter to hang onto me, as I gripped the railing. I pulled myself upward to the top step, but as I got to the ‘landing’ floor – before any lookout part – I suddenly felt as if my head were in a vise – a strange new feeling for me, not like any headache I had ever had in my life, with both sides of my head feeling as if they were being pressed inward, and hard. Then, when I walked outside, I felt another distinctly new feeling – in my chest – as if my heart were being vigorously shaken up and down, fast and hard. That is when I looked up and saw a huge bundle of antennas that seemed to be about 30 feet directly above and to the left of my head.

“I remained dizzy as I forged forward to the place at the top

of the ski slope, where the ski jumpers 'launch.' When we finally went down to the next level to take the tourists' 'Zip Line' ride down to the bottom of the ski slope I felt a tremendous relief in my body. But I remained horrified that this is where athletes from all over the world will soon compete and jump off, with the need for supreme focus and balance."

There were three antennas on the 277.9-foot-tall ski-jump tower in 1999, and two dozen more antennas have been added and upgraded over the years. The harm increased in 2021 when Verizon and T-Mobile added more antennas, increased again in 2022 when AT&T added more, and increased again on December 9, 2023 when Verizon upgraded some of its antennas in preparation for the upcoming World Cup Event. There are now three tiers of panel antennas surrounding the ski jump tower on three sides, as well as half a dozen whip antennas on top. When skiers are at the top of the ski slope, if they look up they can see, about 30 feet above them, the top tier of cell phone antennas on the front of the tower, and the whip antennas on the top. They cannot see the cell phone antennas in back, or the two tiers of lower cell phone antennas on each side, some of which are at the same level as where they are standing.

When a skier sits on the bar from which he or she will launch, he or she is irradiated directly from above by both panel and whip antennas, and that radiation bounces off the reflective snow beneath him or her while skiing down the slope prior to jumping, which quadruples the radiation because of the reflections. And that is not even the main problem. The harm done by the radiation is caused not only by its power level but by its bandwidth and the number of signals you are bathed in. The antennas on this ski jump tower will be broadcasting hundreds or thousands of signals simultaneously during the World Cup Event when every spectator will be using his or her cell phone.

ORDA, FIS (Fédération Internationale de Ski et de Snowboard),

and the skiers who are planning to come to Lake Placid to compete in February's World Cup ski jumping event should be warned that this ski jump tower is a mammoth cell tower that is very dangerous to athletes.

The phone number of ORDA's Olympic Jumping Complex is (518) 302-5919. The email address for FIS is mail@fisski.com and their phone number in Switzerland is +41 (0)33 244 6161. The President of FIS, Johan Eliasch, is a billionaire, an avid skier, and a true environmentalist. He founded the Rainforest Trust, which has purchased 37 million acres of rainforest throughout the world to keep them from being logged. He is the co-founder and co-chair of Cool Earth, which gives cash directly to rainforest peoples to protect both them and the life-giving forests that they live in. He should be educated about RF radiation and what it is doing to athletes, people in general, and our world. He can be contacted on his personal website, here: <https://johaneliasch.com/contact>

Suggestions are welcome as to how to publicize this and use this opportunity to educate the public about the harm to health and environment of wireless technology.

This is what the whole ski jumping complex looks like:



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January 18, 2024

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More Reports From Around the World on RF Radiation Damage

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Even the Ticks Are Vanishing

by [Arthur Firstenberg](#), [Cellular Phone Task Force](#)

January 9, 2024

The reports continue to come in from around the world. The billions of mobile devices and the 9,000 satellites are rapidly replacing the bugs, birds and beasts of the Earth.

Patricia writes from Missouri: “I have been living in rural southwest Missouri for the last 25 years without a mobile phone. When I bought my home in 2005, the soil on the lot was extremely poor and very compacted from having been driven over with riding mowers for many years. I wanted to bring it back and turn my whole yard into a ‘food forest’. I started by sowing clover and cultivating the dandelions instead of trying to get rid of them as so many people do. After the clover started to blossom, I noticed it was being visited by thousands of bumblebees. I had so many hummingbirds that three feeders were needed to keep them from fighting for access. Mosquitoes were almost non-existent around my area.

“At night I could see hundreds of bats flying around, and in spring the yard and whole area was filled with the peeping of little green tree frogs. They would perch along the rim of my swimming pool and lay their eggs in the water. (Note, the town does not chlorinate the water supply and I do not chlorinate the pool.) Every morning I would check the pool for their eggs and move them to a small pool that I set up just for the frogs, where I would feed the tadpoles and change the water as

needed (keeping the tadpoles in buckets during the changes).

"After I had been living here for six years, the first cell tower was erected at the edge of town. Over the next few years, more towers went up, until the whole area was saturated with RF radiation. The town also used a federal grant to change all the electric meters to electronic ones and do away with the analog meters. Each year since, the number of bumblebees seemed to shrink by half, even though I still have the clover and dandelions. During the past 4-5 years, I could count the number of bumblebees on one hand. The last two years I've seen only one or two per YEAR. The hummingbirds are totally gone. I used to find their nests in the fall when thinning.

"Worst of all is the complete annihilation of the tree frogs. Even friends who live out in the sticks and have ponds on their property have noticed the recent "silent spring" phenomenon. Speaking of silent springs: It used to be nearly impossible to sleep past dawn with the windows open in spring, summer and fall here due to the enormous numbers of songbirds that produced a daily morning and evening symphony. Their numbers have declined to the point where I have to actively listen for them in order to hear them at all.

"I could go on about the diminished numbers of butterflies, crickets, praying mantises, spiders and earthworms I've observed. The declines are not limited to the smaller critters; there used to always be cottontail rabbits in the yard, and I haven't seen one of them in recent years. I have lost more pets to cancer since 2010 than I care to count. There aren't even any mice anymore! My personal health has declined severely as well. At the same time there have been notable increases in the numbers of mosquitoes, chiggers and ticks – to the point where it is miserable spending a few minutes outside."

Birds and spiders eat ticks and chiggers. Birds and bats eat

mosquitoes. So mosquitoes, chiggers and ticks, being hardy, multiply when their predators are gone. But not for long:

Marie writes from Sweden: "Even the ticks are gone in some areas."

Daniel writes from Los Angeles: "I hardly see any moths anymore."

Sonya writes from Surrey, England: "Last year I only had two large flies in the house and both died within a few hours. When I was a teenager in the Midlands during the 1950s, I couldn't open my bedroom window during the hot summers because there were banks of midges swarming under the eaves; even here in Surrey five years or so ago, there used to be a few midges around inside the house during a hot evening. I saw none last year."

Renee writes from the UK: "For the last 3 years, we've seen fewer and fewer bees, butterflies and other pollinators. This last growing season we saw only a few bees or butterflies – hardly any insects at all!"

Robert writes from Austria: "I worked for 30 years in a large hospital in Vienna. There I worked with the air conditioning systems. They were very large and had correspondingly large filters. When I first worked there in the '90s, we had to sweep up all sorts of flies under the external filters. A 110 liter plastic bag was pretty much full. 30 years later there are only a few hand shovels full (approximately 20 liters) to sweep up. The continuous decline of insects has really shocked me.

The e-radiation decimates the insects so much. It is the worst massacre in the world. It finally has to stop."

Marianna writes from Vancouver, British Columbia, Canada: "There are new 5G cell phone antennas put onto an apartment house here with a giant crane. It's a room of

antennas on two buildings near me and I am suffering!

"There are very few songbirds or robins, no skylarks, no sparrows, fewer ducks and Barrow's goldeneyes, fewer crows, etc. Also, there have been no flowers on bushes or fruit produced as in the past. I have watched a fig tree produce fruit in 2022 only to see the fruit harden and shrivel at harvest time as all the leaves cascaded to the ground at once. This year I watched again and actually got a few handfuls of figs but watched the majority shrivel and harden and the leaves fall in one swoop before fall! It's devastating and almost no one sees or cares. There are few bumblebees and zero honey bees. My son does art work on the demise of bees! Harmony Arts Festival, West Vancouver."

Nat writes from Newcastle, Australia: "There is now a noticeable decrease in insects in our region, even flies and mosquitoes. At this time of year flies and mossies are a pest and appear in great numbers but not this year. I could count the number of flies I see each day on one hand and I have yet to see a mosquito. Spiders are a rarity in the garden now and should be abundant. Five years ago I had an accident and couldn't drive for several months. A pair of finches took the opportunity to build a nest outside of the garage, under the house, and continued to breed there until this year. There were thirty-four finches sitting on the power lines earlier this year but they seem to have gone. What have we done to the planet?

Howell writes from Thailand: "I went to Penang, Malaysia. In the evening I could hear an insect sound but then realised it was coming from only one place. I looked and saw it was coming from a loudspeaker. In the day the hotel played bird sounds because there are so few birds and insects now.

"Back in my hometown about an hour from Bangkok I realised the same thing was happening, no mosquitoes, very very few cockroaches, no ants, et cetera et cetera.

"This morning I was shocked and saddened by seeing only one House Martin from the 8 nests on the wall below my window. That they have actually survived for so long is remarkable because there is so little food for them—so few insects. The colony has been there for years. One day I noticed a House Martin on the ground that could not fly because its wings had been mutated and were too wide.

"I also saw a squashed 5-legged frog on a walk. I cut down my walking because noticing the lack of insects was very upsetting. There are urban birds like sparrows and pigeons but even their numbers seem to be declining.

"It is good to see people around the world waking up to what is happening. Locals here are happy there are no more mosquitoes and very very few cockroaches. They do not realise what is causing it and they do not care."

Bob writes from England: "I am very old and have always been a naturalist and observer of changes in the world of nature. In the past two decades, I have noticed the decline of butterflies especially those which migrate from France to England, and the absence of insects on the car windscreen. On our farmland we always had a strong rabbit population which soon picked up after the myxi [myxomatosis] decimation, but now I rarely see one. In past years in the spring at night we would have hundreds of Maybugs (cockchavers) flying into our house windows; I have not seen one for years.

"The work you are doing is essential as you know, our natural wildlife has been my life, several years ago I concluded that we had even then lost some seventy percent of it. We humans are a part of that wildlife. Since the introduction of atomic weapons our future has never been certain, but this is far more subtle and I believe threatening."

Barbara writes from Québec, Canada: "I noticed a decline in the insects, birds and creepy crawly things after a cell phone

tower went up behind our family's home over 20 years ago. After two years, seven of our neighbors had died from cancers and heart attacks and all the animal life vanished. The June bugs died in the ground. It is too sad to remember or recount all that we experienced while living there during that time as it was a time of pure evil and torture."

Author, poet and journalist Sean Arthur Joyce writes from Canada: "Today in our community in southeastern British Columbia is our local Christmas Bird Count. The results are positively eerie: hardly a bird to be found, and we live in a mountainous region that is at least 100 kilometres from the nearest major city. I've noticed just over the past couple of months that the birds coming to the feeder have plummeted. Where before, we had daily, regular visits from a dozen or so chickadees and nuthatches all through the year, this has dropped to the occasional pair only once or twice a week. At first I chalked this up to the squirrel monopolizing the feeder for a while, but since he stopped doing that the bird count has still not increased.

"Given how far we are from a major city, and the fact that we have no 5G here (though we do have 4G cell service in some areas, but it doesn't work outside the villages), I'm assuming we may be experiencing radiation from the Starlink satellites even in this semi-remote, rural area.

"We're going into a solar maximum cycle in 2024 (actually it has already started) according to scientists, which has already resulted in a flare affecting radio transmissions around the world. More are predicted in the coming months. There are days I pray we get such a major blast of solar flares from the sun that it knocks out ALL of the satellites.

"Of course, that would knock us back about 200 years but maybe that's the only way we'll see a return of the bird life."

Maya writes from San Francisco: "My second-floor porch is at

the bottom of a Prevailing North Wind funnel, that blows across the dozen backyards, that create the green space interior of our block. The south side of the porch is open to the sky, between buildings on either side that are much taller, creating the wind funnel, and at least a constant breeze.

“When I first moved here four decades ago, I often counted 20 or 30 birds and many bees and butterflies every day. They stopped by the plants I set out for them on the porch as they flew both north and south. Now I only see one or two small birds a week scurrying across the porch floor. But never any bees, and maybe one or two small white butterflies a week. Beginning five or six years ago, I’ve walked the same path in Golden Gate Park several times a week, and counted 50 or 60 Canadian Geese every time. Now, maybe there are 15 or 20 of them. And all the various ducks and hawks are rarely seen. And the glorious breath-taking seasonal Blue Herons are gone.

“Also now, there is a 5G tower more than 500 feet away, at eye level with the porch and my desk window. I spent a small fortune on EMF shielding screens for the desk area windows that look out on the porch. But they only shield 80% of the radiation. Lately I’ve noticed that when I must be at the computer for several hours, the left side of my face by the window, is red.”

Henrik writes from Sweden: “I have seen the same thing happen here in Sweden with the insects. The crane fly and the wasp are gone. In my filled compost bucket there was not a single fruit fly in July and August. Flies and butterflies have also decreased.”

Josephine writes from California: “All of my ants are gone. No rising population of ants rescuing eggs when I water my roses. No little house cleaners coming in for jelly left on the counter in the kitchen. None coming in during the rain.”

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RF Radiation and Our Changing Earth

Our Changing Earth

by Arthur Firstenberg, Cellular Phone Task Force

December 26, 2023

On December 19, 2023, in the journal *New Phytologist*, French researchers [published a study](#) on yet another aspect of the decline of life on Earth. The populations of bees and other pollinators have declined so much that flowering plants that required insects in order to reproduce efficiently have evolved in less than 25 years to become better self-pollinators and to *not* need insects to reproduce.

Field pansies from seeds collected in the late 1990s and early 2000s were grown next to pansies from seeds collected in 2021. Self-pollination rates were 27% higher in the plants grown from the newer seeds. The flowers were smaller. The petals were shorter. The labella – the landing platforms that attract insects – were smaller. The flowering time was shorter. Fewer flowers opened per day. The nectar spurs were shorter, there were fewer nectar guides, and the flowers produced less nectar. More bumblebees visited the flowers that grew from the old seeds than from the new seeds.

The authors warned of cascading effects on insect populations: “These decreases in nectar production may then reinforce pollinator declines if nectar levels fall below those necessary to sustain wild bee populations. Environmental changes may thus present a double jeopardy to pollinator populations, as they become victims of both the changes themselves and of plant trait evolution.”

The authors listed only pollution, habitat destruction, and alien species as causes of pollinator collapse. I have sent the authors a letter, with links to literature reviews, informing them that RF radiation is the biggest cause of insect decline. I have invited them to join the coalition of

scientists, organizations and individuals that we are forming to address the global radiation emergency.

**More reports from around the world
of bird and insect declines, etc.**

Jean writes from Queensland, Australia: "I live in a retirement village and I have noticed fewer insects this year than before. I rarely see a bee."

Leroi writes from France: "Here too the number of insects and birds has dropped significantly (by 2/3), while 5G has not yet been installed...! The number of births of disabled animals and human beings has been increasing since the 1990s, the beginning of widespread computer use."

Chrisleine writes from Andalusia in Spain: "Many of the symptoms you describe are felt here too: almost no more birds; no doves. This year not a single bee in my garden."

Emma writes from South Africa: "The first 5G tower was put up in 2019, 50 meters from me. Within a few days I had fungal pneumonia. A couple of weeks after that I had palpitations that wouldn't stop. Roll on to now... sick pets, loss of insects, I am more sick. There is also a "bird flu" and rabbit flu outbreak (yeah right!). Lots of dead birds but the entire rabbit population is dead in the Kyalami area. I pray for the release of this planet from the radiation."

Tammy writes from New Brunswick, Canada: "Cell towers killed all the birds and insects at Kings Place where I use to work. We used to have a bird problem there, nested in the rooftops, but not anymore. All the birds are gone. I no longer stay inside of urban areas because they are microwave toxic now. And as such, I am going on 4 years without any asthma puffers, allergy meds, no vaccines, and I have had zero colds, flus, COVID, nothing. It's great. A low EMF life is a healthier life. Period. The Amish were right all along."

Doug writes from North Hollywood, California: "I have noticed fewer birds in my neighborhood. We used to hear a lot of them here in the morning. Now I hardly hear any."

Charles writes from the Himalayas: "I live at a remote ashram and things were fine with the wildlife, even 2G was doable but when 2G jumped to 4G, decimation of the bird and insect populations was noticed by the villagers and the ashramites alike, but as you say, everyone is too busy listening to the music to actually do anything about it."

Karl writes from Germany: "I am 74 and an IT professional. I have observed for 20 years how the cranes cross over our house every autumn on their flight south. Now there is a large transmission tower about 20 kilometers away with a radio link that goes directly past our house. If the migratory birds come into this area, their navigation is at an end. They don't know what to do and end up here on the meadow. Many times, they somehow managed to find their way further later or the next day."

"This year, as the radio network here, like everywhere else, has now been significantly expanded with 5G, among other things, a number of birds ended up here again. But all day long I was able to observe flocks that turned around and flew their way back, because they couldn't find their way any further! The landed birds have still been here for a few weeks and will probably overwinter here if they survive, as it is actually too cold here and there is hardly enough food available."

Linda writes from Tucson, Arizona: "A cell tower was installed 1,000 feet from my home. I didn't even know it was there because it was hidden by trees. ALL insects except beetles and box elder bugs dropped by 1/3. They did not recover, year after year. 10 years later, smart electric meters were installed. Populations of ALL insects declined by half and have kept dropping year after year. Even the beetles are

gone.”

Pieter writes from the Netherlands: “The beech hedge in front of our house gets the full radiation of a telecom tower at 300 meters distance on which two telecom companies send their radiation to us (thus apparently sending us the double portion). This cell tower was built in December 2020. Gradually the beech hedge deteriorated and this year it became clear that growth nearly completely stopped and nearly all leaves are much smaller and malformed. The dense foliage in the past changed to many gaps in the hedge.”

Richard writes from Vancouver, British Columbia, Canada: “I was born in 1952 in Czechoslovakia and when I was about ten I decided to make a collection of butterflies which were plentiful in our garden – all kinds of varieties to stimulate my interest. Nothing came out of it and I forgot about it. When I was about 18, I remembered my ‘plan’ from when I was younger and realized that something had changed drastically, as the only butterfly I could see was the common white one and almost no other species. I had no clue what happened. I guessed that possibly increased use of pesticides / herbicides had something to do with it.

“But it was still a time when you had to clean the windshield from various bugs several times a day. This year after a week of travelling on Vancouver Island I had no need to clean the windshield at all – it managed to “catch” only a bug or two.

“Here in Vancouver the very popular California lilac blooms twice a year. You always heard it buzzing with honey bees and bumblebees. Butterflies are now down to a few of the common “whitish / yellowish” one, the same as in Europe. Maybe a year ago I noticed that I could not ‘hear’ the lilacs any more, as honey bees have virtually disappeared and only a few bumblebees are visible.

“Last year and this year I went to Queen Elizabeth Park here

in Vancouver in the spring when everything was blooming. Except for a fly or two there was NO insect – no honey bee, no bumblebee, no butterfly. Nobody noticed anything, but to me it was almost unreal. Apocalyptic feeling.

“A year ago I went to the park in Surrey by the Fraser River where civilization was some distance away – you could almost feel you were in nature. I noticed that no insects were visible, not even under rocks. I mentioned this to somebody in the party I was with, and he did not believe me and went to do his own search, with the same result: nothing. He did not say much but I could see it was bothering him, I guess he was in shock.

“The level of denial is truly unbelievable.”

Gloria writes from North Carolina: “Someone in the U.S. thought it would be a good idea to put radio-tracking devices on monarch butterflies. I am horrified. As if this endangered species doesn’t suffer enough from RF exposure already. How many have perished just flying into a phased-array beam from a 5G antenna? I have raised monarch butterflies from the egg stage (from mother monarch butterflies passing through and visiting my milkweed buffet) and these creatures are more complex and incredible than many people realize. It sickens me to have come across this news. I’m not going to remain silent about it.”

Gloria sent this link to the article she had just read: [The Sky’s the Limit for Monarchs Wearing Solar-Powered Radio Tags](#). It describes the radio tagging of butterflies at Cape May Point Science Center in New Jersey for “data collection of monarch migratory movement”. They were launching “Project Monarch”. For a demonstration, they placed a radio tag on a monarch they names Xerces and tracked its movements. The article continues: “Xerces actually ended up coming back to the CMPSC after a few days and that was the last spot where it was detected.”

Writes Gloria: "Examining the map of Cape May Island and the sightings depicted, the butterfly that had received the radio tag attached to its thorax had trouble finding its way. This is absolutely cruel. That butterfly in all probability had died. It lasted a few days. A migrating monarch could have lived for over six months. No creature should have to be tagged like this, let alone an insect. Are not the radiofrequency transmissions interfering with the magnetoreception of the monarchs? The butterflies won't know where they're going with this radio tag emitting RF continuously but worse yet, the monarchs are being microwaved to death.

"From the article: 'When a tag remains in the sun, it will continue to transmit about once a second, indefinitely!' Butterflies rely on solar energy to power their wings. While the butterflies will be mobile, being in the sun means the transmissions are unrelenting and I fear, contributing to the premature death of any butterfly equipped with one of these horrific devices."

Laurie from California forwarded this story from her neighbor: "We adopted our dog, Rowdy, from the shelter 5 years ago. He is the sweetest soul and my BFF. For the past week he hasn't been acting like himself. He licked a raw spot on his foot. He was panting constantly. He was pacing. Sunday morning, the pacing and panting got so bad, and I was REALLY nervous that there was something wrong with him. For 45 minutes, he panted like crazy and constantly paced back and forth. He was keeping his tail tucked down all the time. His ears were pinned back. He would not settle down and he wouldn't eat. I tried giving him a trazadone that he takes sometimes when he goes to the groomer. It seemed to take a little bit of the edge off, but not much. He still wouldn't eat and he still wouldn't settle.

"I took off work on Monday and took him to the vet. We did blood work and x-rays. His blood work was great except for

some elevated liver enzymes. The x-rays showed no major issues. He got an anti-nausea injection and some Gabapentin to hopefully keep him calm. When we got home, he was okay for a little bit, but eventually started pacing and panting again. We walked around the neighborhood for a long time and he used the bathroom a lot. He seemed pretty happy about that and was in good spirits until we got home and he refused to come back in the house. Every time I took him out that evening, he would hunker down like he didn't want to come back in the house.

"When my vet called and I gave her the update, she suggested there may be some new electronic device in the house that was emitting a high frequency noise that is hurting his ears. We had just put new smart plugs in the house about a week ago. Smart plugs allow you to turn on your electronics with an app or with Alexa. We use ours to turn all our lamps on and off at the same time. His pacing and panting were worse when the lamps were on, so I unplugged all the smart outlets. He stopped panting, stopped pacing, and ate his food. His tail was even up and wagging again. When I plugged the smart plugs all back in and asked Alexa to turn on the lamps, he immediately starting panting and pacing again. We've left the outlets unplugged for two days and have confirmed that it is definitely the smart outlets that are causing his stress and discomfort. He's back to being a totally normal dog again."

Andrea writes from Panama: "I live in Panama, originally from rural Canada where the closest neighbour was 700 feet away but I still got radiation from the bluetooth in her printer! When I was temporarily living in West Palm Beach, Florida surrounded by wifi and 5G I was getting pain across the roof of my mouth between my 2 mercury amalgams, and my dog got deathly sick, anorexic, began having multiple focal seizures a day, and a severe respiratory infection. We were hiking in the state park for 4 hours when he had one of his weird episodes that he had 4 times during the previous year, different from the focal seizures that just began: drooling, almost falling

over, won't eat or drink, personality does a 180 – he is jumpy and scared of us. At the same time my right ovary became painful and both thighs ached, I felt dizzy, nauseous and just horrible. We saw a cell tower behind the trees that we had been walking towards. After walking away for 10 minutes we both recovered.”

Eileen writes from Liverpool, England: “My hometown of Liverpool is the city with the largest 5G mesh network in the UK, and the second largest in the world. <https://liverpool5g.org.uk/about5g/>. The people of Liverpool are part of a huge 5G experiment without any consultation or consent. This is shameful! Makes you wonder about the following headline: [“Liverpool hospitals ‘overwhelmed’ as patients treated in chairs”](#). ‘Doctors working in NHS hospitals in Merseyside are treating patients in chairs and on corridors in ‘terrible’ scenes described as ‘like doing medicine in a developing country’.”

Another correspondent writes: “I had to put my 2 cats down because of EMF from our router. They got the same symptoms I got. They were indoor only and couldn't escape. One lost her mind (pure breed Maine Coon) and didn't recognize her food and started falling off counters. The other one got cancer in his eye. He lasted 8 months then I had to put him down. It was too sad. It took 4 years to affect me and I got cancer 4 times plus 21 other symptoms. I figured all this out after 18 years of radiation poisoning myself.”

Join the Network of [People Without Cell Phones](#)

The only way to diminish the demand for bandwidth that is turning the Earth into a giant computer, with all living beings electrocuted inside of it, is to stop using cell phones. Not to use them less frequently, but to throw them away. The *ability* to use them, no matter how infrequently, requires the entire planet to be irradiated. Please join our

network by forming a local chapter where you live.
You can set your own rules, but it is important to have meetings in person. Please [contact me](#) if you need help and let me know that you are doing it.

Our goal is to establish an expanding global presence of communities that do not use cell phones.

Arthur Firstenberg

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Arthur Firstenberg: An Autumn's Tale

[Arthur Firstenberg: An Autumn's Tale](#)

by [Arthur Firstenberg](#), [Cellular Phone Task Force](#)

December 12, 2023

Imagine a world in which everyone was convinced to point a musical gun at their head, which shot a continuous stream of

tiny bullets, so small that they caused no pain. But every bullet destroyed brain cells on its way through the skull. Imagine millions of gun towers strafing the surface of the earth 24/7 with similar bullets, entertaining the people while destroying all life.

And all the plants and animals were sickening and dying, and the humans were sick and having strokes and heart attacks, but because the bullets were so tiny, few people realized why. Plant biologists blamed the decline on acid rain. Ornithologists blamed influenza. Entomologists blamed climate change and pesticides. The medical profession blamed diet and lack of exercise, and an ever-expanding list of bacteria and viruses.

And here and there, a very few people were screaming, *STOP! THROW AWAY YOUR GUNS! TAKE DOWN THE GUN TOWERS! DISABLE THE SATELLITES THAT ARE STRAFING THE EARTH!* But because everyone was busy listening to the music, they paid no attention. And the people screaming, who were also sick and having strokes and heart attacks, went to their doctors who, instead of sounding a worldwide alarm, told their patients “You must be gun sensitive” and gave them tranquilizers and antidepressants so they would go away and stop screaming.

And so these people concluded there must be something wrong with them. They formed support groups for people with gun sensitivity, and asked the rest of the world to please take pity on them and stop shooting them. And when there was no place left in the world that was not being strafed, they pleaded with their governments to please establish refuges where they could live out their lives free from bullets. But no one took them seriously.

That is the world we live in today.

“Electromagnetic hypersensitivity” (EHS) is a term that allows

doctors to pretend that electricity is harmless, and that radiation does not injure their patients. It allows people who have discovered they can feel electricity and radiation to pretend that there is something wrong with them and that everyone else does not feel it. It allows environmentalists to pretend that the vanishing of birds and wildlife and the collapse of the Earth's life support systems are due to something else. And it allows people who use cell phones to pretend they do not feel the radiation and that their insomnia, headaches, joint pains, digestive problems, panic attacks, memory loss, tinnitus, nosebleeds, high blood pressure, heart failure, neurological problems, and diabetes are caused by something else.

It is late autumn here in Santa Fe.

And it is late autumn in the life of the Earth. We must prevent winter from coming, for there will be no spring if it does. It is up to all of us.

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JOIN The Network of [PEOPLE WITHOUT CELL PHONES](#)

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Our goal is to establish an expanding global presence of communities that do not use cell phones.

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5G, Satellites & the Global Wireless Rollout: On the Irradiation of Cats, Dogs, Birds & All of Our Natural World

[5G, Satellites & the Global Wireless Rollout: On the Irradiation of Cats, Dogs, Birds & All of Our Natural World](#)



"If I were a pet owner with one or two pets it would be dismissed but not when for 23 years we run a perfect pet sanctuary and all of a sudden many injuries, it is obvious something is wrong in the skies. We are off the grid, no

cell phones and the router is turned off at night. We survived without cell phones and all of this high tech killing technology."



Dogs, Cats, Birds, and Maui

by [Arthur Firstenberg](#), [Cellular Phone Task Force](#)

December 5, 2023



Cat with radio transmitter

In response to my last newsletter, "Don't irradiate the birds!," readers have sent me accounts from far and wide of what has been happening not only to the insects, birds, plants, etc., but also to their pets from being irradiated. I have also discovered more information about the birds of Maui – information that makes the case for radiation killing the birds, and not malaria, even more compelling.

Update on Birds of Maui

The bird in my last newsletter called WILD1 – the one who disabled his radio transmitter less than a day after his release into the forest – was seen, alive and very healthy, on July 23, 2021, **632 days after being released!** This was

reported in the [Honolulu Star Advertiser](#) and in [The Maui News](#). Here is my updated newsletter, amended accordingly: <https://cellphonetaskforce.org/dont-irradiate-the-birds/>.

Irradiated Dogs and Cats

Sidnee from California writes:

“A cat appeared one day with a tracking device on a harness. I wrapped the device in aluminum foil and taped a note on the back, telling whoever was the owner that he or she was harming his cat with that device. I included my phone number. A man called me and we chatted. Turns out the cat lived in the house behind me. I told him that the wireless radiation would be making his cat sick, but he didn’t care. His response? ‘He’s an expensive cat and he likes to wander. I need to know where he goes.’

“The Tile Tracker works with Bluetooth. I measured the RFR [radio frequency radiation]. It ranged from the hundreds of thousands to 2.5 million $\mu\text{W}/\text{m}^2$. And the cat wore this all the time. He was so skinny, hyperactive and aggressive toward my own sweet orange kitty.”

The neighbor’s cat, like some of the birds on Maui, kept managing to remove his transmitter. The owner put a different transmitter on him, this time made by Apple. Sidnee continues:

“Good news. Since the cat kept losing the trackers, the owner has finally given up and the cat has no more devices on his harness! What a different cat! He is mellow, sweet and gets along great with my orange kitty, who is 17 years old.”

Stacy in the Netherlands tells what she has observed in nature, in her cats, and in herself, since the advent of 5G:

“I have seen a kill-off of insects since 5G has been rolled out. I had 3 ant nests in my house and balcony, they are all

dead now and I didn't do anything. Also my plants on my balcony have not been visited by bees or any insects for that matter.

"Also lots of plants did poorly, the tops of the plants looked like they had been irradiated from the sky, the leaves clumped together, turned and died.

"I have also noted that in the evening I wake up feeling like I have been choked, my mouth and throat completely dried, my lips parched and I can drink a lot of water but it leaves my body very rapidly. I also suffer from a lot of hair loss as do my cats, they have bald patches and I buy them the best of food I can find. I have never had cats with bald patches before, they say it's old age but it's not true. I have it with both cats, a male and a female.

"I also notice food does not taste the same any more. I always loved fruit but it has lost its lustre. It also looks withered, less yummie/eat me. It's like the light has gone out of things and a darkness has entered and for the first time in my life I am worried to the bone and scared."

Richard in Houston reports a drastic decline in both birds and insects:

"In Houston this year almost all the birds are gone. There used to be hundreds of doves, this year I have seen ONE. The only other birds I have seen are some blue jays which I feed daily and a hawk which preys upon them. I have fed birds for many years and always had a host of them. This year only the squirrels and rats are eating the bird food. The sky is almost empty of birds.

"The bees have disappeared as well. From hundreds last year to one or two this year.

"The lives of birds and Earth are way more important than the 'convenience' of deadly cell phones."

Smart Bird Feeders

Robyn from Colorado alerted me to smart bird feeders, which several companies are now marketing. She writes:

“I noticed an advertisement today from our local hardware store for a Smart Feeder made by Feit Electric. This device sends pictures of the birds at a feeder directly to someone’s phone. I couldn’t help but think about how dangerous this exposure might be to birds who come for birdseed. Or maybe in their infinite intelligence, they don’t come near it.”

Here are pictures of three different companies’ smart feeders:



The Effects of Starlink Dishes

Mary from Guffey, Colorado, who has an animal sanctuary at 9,000 feet in the Rockies, tells a story very similar to the one Mark Broomhall told UNESCO (see [previous newsletter](#)). A deterioration in the health of all the animals has accompanied each advance in wireless communication. A cell tower provided the first cell phone service in that remote location 10 years ago. The tower was upgraded about 2 years ago. And most people in Guffey got a Starlink satellite dish this past summer. “Just about everyone in Guffey has one”, says Mary. She wrote the following on November 6:

"I live at 9000 feet in Guffey, Colorado. Have for 24 years. Starting about 10 years ago I noticed strange things happening on our animal sanctuary. I would find a cat dead, not killed by an animal, not sickly. About 2 years ago it became even worse. Because we have an animal sanctuary we need to keep good care of these animals, not because of legal ramifications but because that is how it should be. This past year and a half has been worse. My vets believe me because we have so many animals that they have treated seeing no natural reasons for their injuries.

"This past month while walking 2 dogs, one was on leash and one can run around and have fun. That night I noticed the dog on a leash was walking strangely, but my husband had no idea why. The next morning when I went to the cat condo to feed the cats I found one lying in a corner in a pool of urine. When I when to pick her up her skin felt like it was detached from her body. Another cat was making loops around the condo. Round and round. I hurried back to the house to call the vets and told my husband I think the animals have been hit by emf's. He asked me what I meant. I said like someone hitting you on the back. His reply was 'Is that what happened?' I asked him what he meant and he said while walking the dog he felt like someone had hit him but when he looked around there was nothing there.

"By then the dog who was on the leash was walking round and round chasing her tail. I then hurried to the chicken coop to see if they were all right. I found a lovely hen lying dead on the ground in the enclosed run. It looked like she had been dropped from up high but there was nothing there to fall from. The rooster seemed in a daze. I took the cat who was critically injured to the vet and had to be put down, was told to get cbd from a Vet CBD company as they formulate the meds specifically for animals, and was told that the dog was suffering from neurological problems, had developed eye problem and a massive ear infection. We will probably have to

euthanize her before the end of the year. The rest of the hens are no longer laying eggs except one a day, down from 10 to 12 per day. All of this in a matter of one day and continuing onward.

“Now in addition to our problem a friend in Divide which is also at 9000 feet said while out playing with their dog and three of their neighbors and their dogs, the dogs got sick and the other people took their dogs to the vet, could find nothing physically wrong and they put the dogs down. My friend is still treating her dog with holistic methods. As an afternote, I have taken 8 cats into the vet due to weight loss and just not looking right. All cats lost from 1 to 2 pounds, blood work found no problems other than stress. We will have to probably put a couple of the cats down if I cannot get them better.

“We allow another non-profit to graze some horses on our 250-acre sanctuary and one of her old horses had to be put down due to cancer. I was talking with the gravedigger while waiting for the lady to come to put her horse down and told him about the problems we had with the animals. He just looked at me and said his chickens were doing the same as mine. If they laid an egg they were soft shell and few eggs. I asked him how long and he said it started about 3 weeks ago.



One of numerous Starlink dishes in Guffey

“If I were a pet owner with one or two pets it would be dismissed but not when for 23 years we run a perfect pet sanctuary and all of a sudden many injuries, it is obvious something is wrong in the skies. We are off the grid, no cell phones and the router is turned off at night. We survived without cell phones and all of this high tech killing technology.”

Starlink is 5G phased array technology from the sky. When a Starlink dish is online, that means a satellite is aiming a narrow beam at it. But by the time the beam reaches Earth from a few hundred miles up in space, the beam can be 8 miles in diameter or more. The dish also aims a beam of radiation directly at the satellite, and scatters radiation around it. If there are a lot of dishes in a 10-mile radius, as there are in Guffey, radiation from Earth and space is scattered far and wide.

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Don't Irradiate the Birds! – How We Can Save the Kiwikiu of Maui

[Don't Irradiate the Birds!](#)

How We Can Save the Kiwikiu of Maui

by [Arthur Firstenberg](#), [Cellular Phone Task Force](#)

November 28, 2023

In mid-October 2019, the Maui Forest Bird Recovery Project (MFBRP), in cooperation with the U.S. Fish and Wildlife Service, the State of Hawai'i, The Nature Conservancy, the American Bird Conservancy, Pacific Bird Conservation, and San Diego Zoo Global, attached VHF radio transmitters to the legs of 10 kiwikiu before releasing them into the Nakula Natural Area Reserve, on the southern slope of Haleakalā volcano. Kiwikiu, a species of honeycreepers found only on Maui, are critically endangered. They are small, weighing less than an

ounce. Fewer than 150 of these intelligent, long-lived little birds remain.

The birds – some captive-raised and some wild – were released into the forest between October 27 and October 30, 2019. By November 16, every bird was dead except the three who had succeeded in removing or disabling their transmitter. The details are shocking.

Seven wild kiwīkiu were captured from the Hanawī Natural Area Reserve and transported to aviaries in the Nakula reserve on the morning of October 17 in preparation for release in the proposed new bird sanctuary. One of the birds, number WILD9, received his transmitter on October 29. He had been strong and healthy prior to that moment, but as soon as it was attached, he hopped onto the ground and stayed still on the floor. Half an hour later, he tucked his head under his wing. Bird Recovery staff then removed the transmitter, but he did not recover. He continued to sit quietly on his perch, and was found dead the next morning.

Another wild bird, number WILD10, received her transmitter on October 26. She attacked the harness holding it onto her ferociously, bit it apart, and removed it. It was found on the ground on October 28. Later on October 28, the Bird Recovery team put a new transmitter on her. On October 29, she was lethargic and not eating. On October 30, she was “fluffed and inactive.” She was found dead on the morning of October 31.

The other five wild-captured kiwīkiu were released into the Nakula reserve with their transmitters intact. WILD5 died on November 11. WILD8 died on November 5. WILD11 died on November 16. WILD1 succeeded in removing his transmitter the day after his release, and he was last observed, doing well, on November 24. WILD7 removed his transmitter on November 8, and he was last observed, doing well, on November 12.

Five captive-bred kiwīkiu were also part of the project. They

had all been raised in bird conservation breeding centers on Maui and Hawai'i, and were between 5 and 18 years old. Two of these birds died during the two-week preparation for release, although they had thrived for years in the bird conservation centers. Bird number MP022 received his transmitter on October 29. Like WILD9, he hopped onto the ground and stayed on the floor after his transmitter was attached, but unlike WILD9 he rolled onto his side and kept on attacking the transmitter with his beak until finally he got his mandible stuck in the harness. Staff removed the transmitter and released him into the Nakula reserve without it, but he did not recover and died on November 2. Bird number MP026 was released with his transmitter on October 29 and died on November 5. Bird number MP023 was released with his transmitter on October 28, and succeeded in removing his transmitter the following day after being observed "moving on a direct path out of Nakula NAR." Presumably he flew as far away from his captors as he could. Bird number MP027 also survived because he was not released with a transmitter. This bird had had a transmitter attached in a previous trial on April 8, and immediately lay on his back on the floor of his cage and did not move. Seeing this, staff removed his transmitter after only a few minutes. On October 23 they attached a transmitter to him again briefly but decided not to include him in the experiment and returned him to the Maui conservation center where he was still alive and well as of the date of publication of the [MFBRP report](#) on March 15, 2021.

The writers of the report attributed every kiwikiu death to malaria, despite the facts, stated in the report, that malaria had never before been found in birds in the conservation breeding centers or the Hanawā reserve where all the birds came from; that malaria had never been known to infect more than about 10 or 15 percent of any population of honeycreepers; that malaria does not kill all birds it infects and honeycreepers are known to develop resistance to it; that other parasites were also found in the birds; and that the

average time from first symptoms to death for the birds in this project was "1-2 days" which is not typical of malaria. Two "large, healthy male kiwiku" died within hours of their first signs of reduced activity. The authors of the study wrote:

"[I]t was not clear if these birds could have contracted the disease in Nakula NAR as these birds developed symptoms more rapidly than is typical and died more rapidly than has been reported for other honeycreepers."

They went on to speculate:

"The necropsies found parasites in multiple organ systems indicating a severe systemic infection that had moved out of the blood stream into other tissues. This could be the result of increased replication of the malaria parasite following some change in the immune system of the birds, such as in response to environmental stress."

The environmental stress that they did not consider was the radiation from the VHF transmitters that they attached to the birds.

A correspondent in Alberta wrote to me last year:

"Prior to me being aware of the dangers I had a tracking collar for my beagle as he was a little bit of an escape artist. Unfortunately after having worn it for a while (3 months or so) with it on only while he was outside he started to develop joint pains and was not walking right. The vet said he had a common beagle issue of his spine starting to compress and cause problems. Right around the same time I was learning of the dangers of all these wireless devices and got rid of his tracker. He was off pain killers and back to normal in under a month and the issue has never returned."

Nor did the Bird Recovery team consider the radiation from the giant antenna farm towering over the Nakula Natural Area Reserve atop Pu'u 'Ula'ula (Red Hill). There are 159 antennas on 20 telecommunication towers on top of that hill blasting

the Nakula reserve with cell phone, internet, radio, television, government, police, military and other signals. The Air Force Maui Optical and Supercomputing (AMOS) facility is there. The authors of the Bird Recovery report wondered why it is that the wild kiwīkiu choose to remain in the small 7,413-acre Hanawī Natural Area Reserve on the windward slope of the volcano and do not stray over the top to the leeward slope where they would be more sheltered from the elements. It is because in the Hanawī reserve the crest of the volcano above them blocks all the radiation from that antenna farm and cell phones do not even work where they live.

Since the failure of the relocation project, efforts to save the kiwīkiu from extinction have focused on releasing billions of bacteria-infected mosquitoes onto Maui in a misguided attempt to save the birds by eradicating avian malaria from the island. As of this writing, a lawsuit against the mosquito project, filed by Hawai'i Unites, is being heard by Hawai'i's Environmental Court. Not only will importing billions of mosquitoes, however altered, into the national park and nature reserves of eastern Maui only make the situation worse for the birds; not only could it backfire and further spread malaria instead of eradicating it; but no solution is possible for this or any other species of rare bird as long as we as a society continue in our denial about the radiation disaster that we are inflicting on our planet from every direction.

In 2017, Mark Broomhall wrote a 38-page [Report for the United Nations Educational Scientific and Cultural Organization](#) that shines a bright light on why the kiwīkiu have retreated to the high elevations of the northern slope of Haleakalā volcano in Maui, and what must be done to protect them. The following is from his summary of his years of observation of the birds and wildlife on Mount Nardi in the Nightcap National Park World Heritage Area in Australia. That mountain, on which he lived for 40 years, has telecommunication towers on its summit:

"It wasn't until the Analogue Era was drawing to a close, along with the advent of digital wireless technology in the years 2002 to 2004, that I began to notice a decline in insect diversity and population. This period was at the back-end of a prolonged nationwide drought and there was much talk of global warming.

"Initially, I attributed the insect decline to these events. I later learnt of 'mobile phone pulsed microwave technology' and understood from press reports that this was being installed on Mt. Nardi. This technology is named universally by the industry, the press, and the public at large, as '3G.' With this knowledge, I began to suspect that perhaps something else was happening on Mt. Nardi. At the same time, further additions included Wideband Code Division Multiple Access (WCDMA) technology.

"In the year 2009, enhanced 3G technology was installed and a further 150 pay television channels were added to the tower. Following these additions, I witnessed the exodus of 27 bird species from Mt. Nardi while simultaneously, insect volumes and species variety dropped dramatically.

"In late 2012 and early 2013, with the construction of a new tower in the complex and the introduction of a 600,000-watt generator, the system was upgraded to what became universally known as "4G." Immediately after, I witnessed the rapid exodus of a further 49 bird species. From this time, all locally known bat species became scarce, 4 common species of cicada almost disappeared, as well as the once enormous, varied population of moths & butterfly species. Frogs and tadpole populations were drastically reduced; the massive volumes and diverse species of ant populations became uncommon to rare."

Broomhall's observations are consistent with thousands of published reports in the scientific literature, as well as a constant stream of informal reports from my colleagues and subscribers that I have been receiving from all over the world for decades – from Spain, from Japan, from Norway, from the Netherlands, from Greece, from everywhere.

The essential difference between Mount Nardi and the kiwikiu's

current refuge is that an antenna farm irradiates all of Mount Nardi whereas cell phones do not even work in the Hanawī reserve. It is why the kiwī have retreated there. If the birds are simply left alone and not given radio transmitters, and if antennas for telecommunications, radar, WiFi, and any other purpose are prohibited on the volcano and in the nature reserves around it, as well as above it from drones as has been experimented with elsewhere in Hawai'i, the birds will thrive. If not, they will perish.

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[Connect with Arthur Firstenberg](#)

Cover image credit: [Zach Pezzillo](#), Maui Forest Bird Recovery Project

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[Arthur Firstenberg: Ecocide From Space](#)

[Arthur Firstenberg on Electrosmog: "The Ability to Use a Mobile Device Everywhere on Earth Means That Every Square Meter of the Earth Must Be Irradiated at All Times."](#)

Global Extent of Bird Armageddon: Avian Flu or Radiation?

[Global Extent of Bird Armageddon](#)

Avian Flu or Radiation?

by [Arthur Firstenberg](#), [Cellular Phone Taskforce](#)

October 17, 2023



Anders Brunstad alerted me to the installation of one of the most powerful radar stations in the world on the Varanger Peninsula in Finnmark, Norway just before tens of thousands of birds fell dead all over the peninsula. The southern and eastern coasts of the peninsula also have 4G+ and, increasingly, 5G service, added recently.

At Ekkerøy Nature Reserve, on the southern coast of the peninsula, at least 15,000 endangered kittiwakes died at the

end of July and beginning of August 2023. They nest there in the summer on high cliffs where they are directly in the line of fire of the radar, which is 50 kilometers away. The restaurant at Ekkerøy was forced to close for the summer because it was “raining down” dead birds. The total population of these seabirds in Norway was only about 50,000. Dead terns and other kinds of gulls have also been collected. Half of the cranes at Ekkerøy have died.



The radar, called Globus III, was built by the United States on the island of Vardøya in Vardø, the easternmost city in Norway, which is across a bay from northern Russia. It appears to be part of a civil defense network called the Space Fence.

Details about this site have been kept secret, but I found a [Request for Information](#) published on February 22, 2022 on the U.S. government's website, SAM.gov. It states:

“This system is a one-of-a kind design which will be fielded in 2023. The program is a bi-national, collaborative specialized collection system. The GLOBUS

program is a dual band ground-based radar system consisting of an S-band solid state phased array, an X-band dish antenna, an Integrated System Controller (ISC), and a Mission Communications Suite (MCS) hosted at an Outside Continental United States (OCONUS) location."



Other Space Fence radars are located on Kwajalein Island in the Marshall Islands, and in Western Australia. These S-band (2 GHz to 4GHz) phased array radars each have 36,000 transmitting antennas, a peak power of 2.7 MW and, when focused into a narrow beam that scans the sky in all directions, a peak effective radiated power of several billion watts.

The conflagration is not confined to Finnmark, or to Norway. Last summer I reported on mass deaths of nesting seabirds in locations near new antennas in the Netherlands and France ([Birds on Texel Island](#); [Sea Birds' Last Refuges](#)). This summer the situation is immensely worse. The continued proliferation around the world of 4G and 5G cell towers and antennas, as well as offshore wind farms, has killed millions of wild birds on five continents, [together with](#) foxes, skunks, raccoons,

fishers, badgers, martens, black bears, grizzly bears, bobcats, lynx, mountain lions, wild boar, otters, Virginia opossums, seals, penguins, and other animals.

Last year, 40% of the Dalmatian pelicans nesting in Greece died, along with 20% of those in Romania, and large numbers in Montenegro and Albania. By May 2023, more than 50,000 dead wild birds of all kinds had been reported in the United Kingdom, 40,000 in eastern Canada, and tens of thousands in the United States. By July 31, 2023, China was reporting 5,100 dead birds in Tibet. Reports of mortality have come from every state in the United States, across 129 species of birds. Huge numbers of bald eagles have died. Just in November and December 2022, more than 50,000 seabirds died along the coast of Peru, including 16,890 Peruvian pelicans and 4,324 brown boobies, both endangered in Peru. In Chile, as of January 1, 2023, perhaps 10,000 seabirds had died, including pelicans, kelp gulls, Belcher's gulls, grey gulls, guanay cormorants, Peruvian boobies, elegant terns, and turkey vultures.

On May 9, 2023, the Chilean government reported the deaths of 27,977 seabirds, and on July 21, 2023, the Peruvian government reported the deaths of 519,541 seabirds. These represented birds of 65 species. In addition, Chile reported the deaths of 2,517 Humboldt penguins, 460 Magellanic penguins, 16,856 sea lions, and smaller numbers of dolphins, porpoises, otters and other kinds of seals, while Peru reported the deaths of 9,314 sea lions and 100 other sea mammals. According to a [report by the OFFLU](#), a global network of expertise on animal influenza, Chile has lost at least 13% of its Humboldt penguins, Peru has lost at least 36% of its Peruvian pelicans, and Chile and Peru together have lost at least 9% of their sea lions.

Ornithologists are all blaming this catastrophe on avian influenza, in spite of the fact that most of the dead birds are testing negative for any influenza virus, and the ones that test positive have all different variants of the virus so could not be transmitting it to one another, let alone to

bears and penguins. For example, 233 dead birds [were examined for flu virus](#) by the Norwegian Veterinary Institute between August 14 and October 1, 2023. They found highly pathogenic H5N1 virus in 8 birds, highly pathogenic H5N5 in 2 birds, highly pathogenic H5Nx (other subtypes) in 2 birds, low pathogenic H5Nx in 6 birds, “other Influenza A virus” in 8 birds, and no virus at all in 207 birds.

Yet the [United States is already stockpiling a vaccine](#) against H5N1 in case it spreads to human beings and causes a pandemic.

The disappearance of bugs has also been in the news. Dr. Norman Leppla, a professor of entomology at the University of Florida, said that state’s lovebug infestation has completely vanished. They used to come in massive numbers in the spring and fall around May and September with a little variation depending on if you are in the northern or southern part of the state. “It’s not subtle, they’re really not here this season,” he said in an interview [published October 5, 2023](#). But no one is blaming that on “avian influenza.”

Wind farms are also devastating birds, as documented by German scientists in [an article](#) published in *Nature* on April 13, 2023. They found that populations of red-throated loons plummeted in the North Sea after five clusters of offshore wind farms were built there between 2010 and 2014. Their populations declined by an average of 94% within 1 kilometer of a wind farm and by 52% within 10 kilometers, with some population reduction at distances up to 24 kilometers.

Wind farms are also killing whales. At least 32 whales have washed up dead on the U.S. east coast in recent months, prompting a group of New Jersey legislators to [call for an immediate moratorium](#) on offshore wind farms in the area.

Communities that are waking up

Sanity has broken out in in Chhattisgarh’s Gariaband district, in the Indian village of Lachkera, home to 600 families. A

village resolution prohibits the installation of any cell towers in order to protect birds. “We have learnt that the transmission towers cause radiation that is harmful; we would rather prefer to live with weak network connectivity from the adjoining locations. It’s a delight to welcome Openbill storks with the onset of the monsoon. They nest in the trees of our village and no one in the village disturbs them. We don’t permit any mobile phone service provider to establish their tower despite the pressure and temptation from them,” said Uday Nishad, the elected head of the village government.

They learned this from [a field survey](#) by scientists at C.V. Raman University that was conducted in 2017 of birds in the vicinity of the 9 cell towers in Bijapur district. Reviewing 113 studies on the ecological effects of RF radiation, the authors wrote:

“When birds are exposed to weak electromagnetic fields, they disorient and fly in all directions, which harm their natural navigational abilities. A large number of birds like pigeons, sparrows, swans are getting lost due to interference from the ‘unseen enemy’, i.e. mobile tower. It has also been noted of late that animals used near mobile towers are prone to various dangers and threats to life including still births, spontaneous abortions, birth deformities, behavioral problems and general decline on overall health. Electromagnetic pollution is a possible cause for deformations and decline of some amphibian populations too. Apart from birds and animals, electromagnetic radiation emanating from cell towers can also affect vegetable, crop and plants in its vicinity.”

They visited the areas where each cell tower was located for 2 to 3 hours in the morning and 2 to 3 hours in the evening, every day for 6 months, and counted birds – peacocks, wild ducks, crows, parrots, cuckoos, sparrows, wild pigeons, eagles, and woodpeckers. There were far fewer of every kind of bird in 2017 than there had been in a survey conducted in 2006 before the towers were erected.

It bears repeating, yet again, that influenza, whether in

people, animals, or birds, is *not* caused by a virus and has never been demonstrated to be a contagious disease. In 1918, at the height of the Spanish influenza, attempts by medical teams in Boston and San Francisco to demonstrate the contagious nature of the flu met with complete and resounding failure. Such experiments in humans were published in the [*Journal of the American Medical Association*](#), the [*Boston Medical and Surgical Journal*](#), and [*Public Health Reports*](#). Such experiments in horses were published in [*Veterinary Journal*](#). Chapters 7, 8 and 9 of my book, [*The Invisible Rainbow: A History of Electricity and Life*](#), are devoted to a complete, detailed examination of the history and science of influenza. Chapter 16, the longest chapter in the book, is devoted in part to the effects of electromagnetic radiation on birds. Some diseases are caused by viruses, but influenza is not one of them. I suggest once again that all bird conservation organizations should acquire my book and read it carefully.

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Cover image credit: [AWeith](#)

Humans, Bees and Wildlife in 2023 – Smart Cities Are Killing All Life

[Humans, Bees and Wildlife in 2023 – Smart Cities Are](#)

Killing All Life



A correspondent in Gold Coast, the “smartest city in Australia”, reported in April that his city is devoid of almost all non-human life.

“Where I live in Australia,” wrote George, “we used to have many rain forest frogs, most famous is the green tree frog. The last time it rained I heard not one bleep. Even the Queensland cane toad has disappeared.

“After each rain the grass used to be covered with earthworms—not an earthworm on the grass anymore.

“We used to hear the cicadas chirping in the evening—I haven’t heard a chirp for over six years.

“All my fruit trees have no fruit.

“There are no insects, bees, spiders or even aphids on my roses.

“My area is well known as the smartest city in Australia and our close by bush are dead of any environmental life (bees, butterflies, moths, birds, flying bats, frogs and native animals)”.



Humans, Bees and Wildlife in 2023

by Arthur Firstenberg, Cellular Phone Taskforce

September 20, 2023

Babies Are Being Killed by Hospitals

A correspondent in North Carolina sent me this account a few days ago of a healthy newborn who was irradiated nearly to death by the hospital environment:

“I want to relate what happened to my Goddaughter’s baby brother at the Duke Medical Center earlier this spring. Baby Emiliano was born in excellent health, but when I returned 12 hours later, he had been moved to a different room and I became concerned because I myself developed dizziness, tremor, and headache within about 5 minutes of visiting his room.

“I knew to check my RF meter because these are microwave sickness symptoms which I get when the RF levels are high. The Cornet measurements hovered between 11 and 15 milliwatts per square meter! Personally I need the RF levels below about 0.006 milliwatts per square meter, so I can’t imagine what it was doing to an infant who was only **12 hours old**. When I opened the curtains I noticed there was a round 5G pole outside on the street; also straight out of his hospital window you could see a rooftop cell array that looked like several large white panels on top of another hospital building across a small green quad. You could see them clearly because the other building was shorter, which meant that the roof panels lined up horizontally nearer to the level of the baby’s window.

“By day 3, Emiliano had developed jaundice and soon was put in the Neonatal Intensive Care Unit, which also had very high radiation levels. While on that unit, his jaundice numbers continued to climb, and he developed a rash. I found it interesting because I developed a rash too. I developed a butterfly rash across my face and the baby had a full-body rash on one side of his body. I told the nurse that I had a 5G rash, just like the baby. She had no clue what I was talking about. She explained that lots of babies get this rash, but they don’t know what causes it.

“After several more days in the Duke Main NICU his condition continued to worsen. I was forcing myself to visit him in the hospital, despite my being horribly sick there, because I am very close with the family. My own rash would return along with the dizziness, tremor and headache every time I visited. These would go away within 12-24 hours of leaving the hospital and returning home. The baby had to stay in the radiation, though.

“After many more days in the NICU, being irradiated 24/7, the baby developed a staph infection near his tiny fingernail. The infection began spreading down his finger and they were talking about amputating his finger. By then, I had been working for days to persuade his mother to have him transferred to Duke Regional, a smaller hospital in the northern part of the city, and finally she asked to transfer him. My reason is that I knew that Regional had much lower RF levels based on her prior visit there during early contractions when she had stayed overnight and background radiation levels in the room were between 0.003 and 0.01. (Durham Regional is in a less affluent part of town, with lower-tech overall.) They transferred the baby by helicopter and the baby’s health improved immediately. Within 48 hours of being transferred away from the high radiation at Duke Medical, the rash improved dramatically, the jaundice scores declined, and the staph infection began to improve.

“The radiation levels at Regional were about a thousand times lower than at Duke Main. Also at Duke Regional there were no visible 5G poles or roof arrays outside the baby’s windows. The baby recovered fully there and is home now.”

– 2 –

Cancer in Young People Is Skyrocketing

A review of cancer statistics in young people in 44 countries has been published by an international team of scientists. The rate of cancer in people under 50, they found, has increased

dramatically in every one of those countries. The study, published in *Nature Reviews Clinical Oncology*, is titled "[Is early-onset cancer an emerging global epidemic?](#)" The authors speculate on various possible causes for this epidemic, including diet, lifestyle, obesity, the microbiome, and genetic susceptibilities, but are forced to conclude there is no evidence that any of these factors have caused the global increase. There is one mention of ionizing radiation in a single sentence, and no mention whatsoever of RF radiation.

Investigative journalist Felice Freyer interviewed two of the study's authors as well as six other cancer specialists from Harvard, Brigham and Women's Hospital, the Dana-Farber Cancer Institute, and Tufts University about the results of that study. I mailed her a copy of my book along with the following letter:

"I read with interest your article of July 22, 2023 in the *Boston Globe* titled "[Rise in cancer among younger people worries and puzzles doctors.](#)" I also read the *Nature Reviews* paper referred to in your article ('Is early-onset cancer an emerging global epidemic?').

"I too have been following the increase in certain cancers in young people, but in relation to a very specific environmental factor: radio frequency (RF) radiation from the cell phones younger people have been carrying much of their lives. There is extensive literature on this connection, including a plausible causative mechanism. I believe exposure to wireless technology, especially cell phones, is the cause of much if not most of the recent rise in cancer in young people.

"Supplementary Table 1 in the *Nature Reviews* study lists trends of 13 types of cancer in 44 countries. The types of cancer with a rising trend in at least 75% of those countries are cancers of precisely the organs most heavily irradiated by cell phones:

- breast
- colorectal
- thyroid
- prostate
- endometrial
- kidney

“During use, cell phones are held either right next to the thyroid gland or in front of the body near the breast. When not in use, but still on and radiating, cell phones are most often kept in a back or hip pocket, next to the kidney or near the colon and the prostate or uterus. The single most-exposed organ among the ones included in the study is the thyroid, which is the only type of cancer reviewed with an overall upward trend in every one of the 44 countries (except Thailand, where the numbers did not reach significance).

“I would also call attention to testicular cancer, which that team did not review. The testicles are also heavily irradiated by cell phones in pockets. And testicular cancer is not only on the rise in young people worldwide, but in 2020 was the most common cancer in men aged 15 to 44 in 62 countries worldwide. (Ariana Znaor et al., Global patterns in testicular cancer incidence and mortality in 2020, *International Journal of Cancer* 151(5): 692-698 (2022), <https://onlinelibrary.wiley.com/doi/abs/10.1002/ijc.33999>).

“And then, of course, there is brain cancer, which that team also did not review. The brain is even more irradiated by cell phones than the thyroid. Brain and central nervous system tumors are today the second most common type of cancer and the leading cause of cancer-related deaths in children and young-adults. (J.S. Bell et al., Global incidence of brain and spinal tumors by geographic region and income level based on cancer registry data, *Journal of Clinical Neuroscience* 66: 121-127 (2019), <https://www.sciencedirect.com/science/article/abs/pii>

[/S0967586818322252](#)).

“There is a plausible mechanism. Electromagnetic fields interfere with the movement of electrons, including the electrons in the electron transport chain in the mitochondria of every cell. This slows metabolism and causes oxygen deprivation, resulting in the spectacular increase in several diseases and disorders, about which the medical community has largely thrown up its hands in puzzlement, searching for a reason. I am referring to obesity, diabetes, heart disease and cancer. The decreased efficiency in digesting sugars and fats will result in obesity, diabetes, and heart disease, while cancer cells thrive in anaerobic conditions. And the Warburg hypothesis proposes that oxygen starvation not only selects for cancer but causes it.

“You may be interested in some of the following studies:

- John G. West et al., Multifocal Breast Cancer in Young Women with Prolonged Contact between Their Breasts and Their Cellular Phones, *Case Reports in Medicine*, Volume 2013, Article ID 354682,
<https://www.hindawi.com/journals/crim/2013/354682>
- Michael Carlberg et al., Is the Increasing Incidence of Thyroid Cancer in the Nordic Countries Caused by Use of Mobile Phones? *International Journal of Environmental Research and Public Health* 17, 9129 (2020),
<https://www.mdpi.com/1660-4601/17/23/9129>
- *Microwave News*, Colorectal Cancer Soaring in Young Adults; Are Smartphones in the Mix? Epidemiologist De-Kun Li Wants To Know, June 3, 2019,
<https://microwavenews.com/news-center/de-kun-li-crc>
- Yakymenko et al., Long-term exposure to microwave radiation provokes cancer growth: evidences from radars and mobile communication systems, *Experimental Oncology* 33(2): 62-70 (2011).

<https://pubmed.ncbi.nlm.nih.gov/21716201/>

- In Seok Moon et al., Association between vestibular schwannomas and mobile phone use, *Tumour Biology*. 35(1): 581–587 (2014),
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3907669/>
- Lennart Hardell and Michael Carlberg, Mobile phone and cordless phone use and the risk for glioma – Analysis of pooled case-control studies in Sweden, 1997-2003 and 2007-2009, *Pathophysiology* 22(1): 1-13 (2015), <https://www.sciencedirect.com/science/article/pii/S0928468014000649>
- Brière, Jean-Jacques, Paul Bénit, and Pierre Rustin. 2009. “The Electron Transport Chain and Carcinogenesis.” In: Shireesh P. Apte and Rangaprasad Sarangarajan, eds., *Cellular Respiration and Carcinogenesis* (New York: Humana), pp. 19-32.
- Thomas N. Seyfried and Laura M. Shelton, Cancer as a metabolic disease: implications for novel therapeutics, *Carcinogenesis* 35(3): 515–527 (2014),
<https://link.springer.com/article/10.1186/1743-7075-7-7>
- Thomas N. Seyfried., Cancer as a mitochondrial metabolic disease, *Frontiers in Cell and Developmental Biology*, Volume 3, Article 43 (2015), <https://www.frontiersin.org/articles/10.3389/fcell.2015.00043/full>

“The history and causation of cancer in relation to electromagnetic fields is reviewed in chapter 13 of my book, [*The Invisible Rainbow: A History of Electricity and Life*](#) (White River Junction, VT: Chelsea Green 2020), a copy of which accompanies this letter. The book has 137 pages of bibliography.

“I believe the universal use of cell phones, which began suddenly within the past 25 years, is responsible for the

simultaneous, extraordinary increase in certain cancers in young people during the same period of time, and should be a factor analyzed in every study of cancer incidence, prevalence and causation today.

“I look forward to any follow-up article you may write on this topic.”

I also sent a similar letter to each of the seven scientists she interviewed. Here are all their names and email addresses for those of you who want to write to them:

- Felice Freyer, Boston Globe <freyer@globe.com>
- Tomotaka Ugai, Brigham and Women's Hospital <tugai@bwh.harvard.edu>
- Andrew T. Chan, Massachusetts General Hospital <achan@mgh.harvard.edu>
- Brian Wolpin, Dana-Farber Cancer Institute <brian_wolpin@dfci.harvard.edu>
- Heather Eliassen, Brigham and Women's Hospital <nhahe@channing.harvard.edu>
- Timothy Rebbeck, Dana-Farber Cancer Institute <timothy_rebbeck@dfci.harvard.edu>
- Kimmie Ng, Dana-Farber Cancer Institute <Kimmie_Ng@dfci.harvard.edu>
- Joel B. Mason, Tufts University <joel.mason@tufts.edu>

– 3 –

Multiple Sclerosis Is Rising in Children

A team of scientists from the UK, France, Netherlands, Australia, Canada, and the United States compared rates of multiple sclerosis in 115 countries in 2013 with rates in 2020. They found that the prevalence of MS had increased dramatically in every region of the world in just seven years. It increased by 59% in Africa, 87% in the Americas, 38% in the Eastern Mediterranean, 32% in Europe, 58% in Southeast Asia, and 32% in the Western Pacific. Globally, 44 in every 100,000

people had MS in the year 2020. Multiple sclerosis is even starting to be tracked in children: in 2013, 7,000 cases of multiple sclerosis in people under 18 years of age were reported by 34 countries; in 2020, more than 30,000 cases in people under 18 were reported by 47 countries.

No one should be surprised. In 2015, a [team of Turkish scientists exposed](#) rats to cell phone-like radiation for one hour a day during their early and mid-adolescence, which for a rat is 21 to 46 days of age. The exposed rats' spinal cords had significant losses of myelin, similar to what occurs in multiple sclerosis.

– 4 –

Incredible Rise in Obesity and Heart Conditions

In April 2023, the British Heart Foundation [published statistics](#) revealing a shocking prevalence of obesity and heart disease. 64% of all adults 16 years of age and older in the UK today are overweight or obese. And 30% of all children aged 2-15 are overweight or obese.

The number of prescriptions used in the prevention and treatment of heart disease in England rose from 46,252 in 1981 to 332,575 in 2020. The sharpest rise occurred between 1996 (91,037 prescriptions) and 2006 (234,793 prescriptions), the years when most of the population acquired mobile phones.

The number of people suffering from atrial fibrillation, a conduction disorder of the heart, increased in the UK from 1.30% of the population in 2006/07 to 2.12% of the population in 2021/22. That is a 63% increase in 15 years.

– 5 –

Nearly Half of All U.S. Honey Bee Colonies Lost Last Year

The Bee Informed Partnership's [annual survey](#), published on June 22, 2023, revealed that 48.2% of all honey bee colonies

in the United States were lost in the period from April 1, 2022 to April 1, 2023. “Lost” means all bees in the colony died.

– 6 –

Smart Cities Are Killing All Life

A correspondent in Gold Coast, the “smartest city in Australia”, reported in April that his city is devoid of almost all non-human life. “Where I live in Australia,” wrote George, “we used to have many rain forest frogs, most famous is the green tree frog. The last time it rained I heard not one bleep. Even the Queensland cane toad has disappeared. After each rain the grass used to be covered with earthworms—not an earthworm on the grass anymore. We used to hear the cicadas chirping in the evening—I haven’t heard a chirp for over six years. All my fruit trees have no fruit. There are no insects, bees, spiders or even aphids on my roses. My area is well known as the smartest city in Australia and our close by bush are dead of any environmental life (bees, butterflies, moths, birds, flying bats, frogs and native animals)”.

Arthur Firstenberg

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Arthur Firstenberg on Electromog: “The Ability to Use a Mobile Device Everywhere on Earth Means That Every Square Meter of the Earth Must Be Irradiated at All Times.”

[Arthur Firstenberg on Electromog: “The Ability to Use a Mobile Device Everywhere on Earth Means That Every Square Meter of the Earth Must Be Irradiated at All Times.”](#)



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Electrosmog: A Policy Brief

Guidance to governments, legislators, environmental organizations, schools, and religious, political, and community leaders.

by [Arthur Firstenberg](#), [Cellular Phone Task Force](#)

July 26, 2023

Guidance to governments, legislators, environmental organizations, schools, and religious, political and community leaders.

If your organization wishes to join in supporting this brief, please [email us](#).

Key Points

1. The study of electricity should be restored to biology and medicine.
2. Personal wireless communication must be phased out because the radiation that carries all the messages is destroying life on earth.
3. Mobile phones must be replaced with landline phones, WiFi with ethernet cables, and other wireless consumer devices with devices connected by wires and cables.
4. Mobile phone antennas and masts must be phased out and removed.
5. Wireless technology must be removed from vehicles.
6. Smart meters must be replaced with analog meters.
7. Smart highways, smart cities, and the Internet of Things must cease being developed and deployed.
8. Radar stations must be limited in number, location and power.
9. Radar (microwave) ovens should not be used for heating food.
10. An international treaty on electrosmog, addressing radiation on land, in the oceans, and in space, must be

drafted.

Introduction

Electrosmog is the totality of the electric fields, magnetic fields, and electromagnetic radiation that bathes us 24/7 from all electrical and electronic devices, electric wires, power lines, and wireless devices and antennas. With wired communication, information is transmitted via the wires, and the electromagnetic fields (EMFs) and radiation are unintentional. Proper engineering can reduce these unwanted fields and radiation to a minimum.

By contrast, with wireless communication, the radiation is the product. Radiation substitutes for wires in transmitting information.

Wireless *means* radiation. The ability to use a mobile device everywhere on earth means that every square meter of the earth must be irradiated at all times. Mobile devices operate in the microwave spectrum, with the result that the entire planet is now swimming in a sea of microwave radiation that is millions to billions of times stronger than the radiation from the sun and stars with which life evolved (1).

Life is based not only on chemistry but more fundamentally on electricity (2, 3). The unimpeded flow of electrons is essential to the functioning of our nerves, heart, and metabolism (3). Interference with these electric currents causes neurological diseases, heart disease, metabolic diseases such as diabetes, and cancer (4). Organisms that have a very high metabolism, such as bees and other insects, are being wiped out (5, 6). Thousands of studies document the devastating effects of wireless radiation on mammals, birds, insects, amphibians, and forests (7).

Because EMFs are not a foreign substance to living beings, a toxicology model does not apply and there is not a dose response: reducing the power does not reduce the effect. Even

a signal that is almost immeasurably weak can interfere with normal biological functioning (8). "While the dose rate/SAR concept is adequate for description of acute thermal effects, it is not applicable for chronic exposures to N[on]T[hermal] M[icro]W[aves]." (9). Even at near-zero power levels, microwave radiation has been found to change the structure of DNA (10) and alter brain waves (11). Some studies have even found an *inverse* dose response. When the power of the radiation was reduced 1000-fold, damage to the blood-brain barrier *increased* (12). A review of 113 studies found that radiation with the *lowest* power tended to cause the *greatest* ecological damage (5). In another review of 108 experimental studies, a lower exposure level tended to have a *greater* biological effect, and the difference was highly significant ($p < 0.001$) (13).

The damage done to our health and our world by wireless devices and their infrastructure is caused not only by the microwave carrier frequencies, but also by the low-frequency modulation and pulsations that carry the transmitted information. "Thus modulation can be considered as information content embedded in the higher frequency carrier wave that may have health consequences beyond any effect from the carrier wave directly" (14). No matter what the carrier wave, the modulation is the same because it has to carry the same information. Therefore using light as the carrier wave, as is being done over short distances with LiFi, or using sound as the carrier wave, as is being done in the oceans, does not reduce the harm.

The finding that only a single two-hour exposure to a mobile phone during their lifetime, even when the power of the phone was reduced 100-fold, caused permanent brain damage in young rats (15) makes it likely that we are raising, and perhaps have already raised, a generation of children with brain damage. There is no question but that this must cease, and that cell phones are not safe at any power level, at any

distance from the head, and for any duration.

Purpose of This Document

This policy brief provides an overview of an immediate threat to life on earth—even more immediate than climate change—that has been allowed to get completely out of control because it has been completely ignored. The source of the threat is a technology to which everyone has become addicted, and which, during the past two and a half decades, has become firmly entrenched in every aspect of life. Although more scientific studies have been published on the health and environmental effects of EMFs than on almost any other pollutant except for mercury and tobacco smoke, the impact of all this research upon public policy to date has been zero. Average citizens still do not even know that a mobile device emits radiation. Much less do they suspect that it is causing them brain damage or threatening their life and their future on this planet. The purpose of this brief is to outline actions that are required to be taken by political leaders, religious leaders, environmental organizations, public schools, medical schools and doctors to educate the public and to begin to dismantle this existential threat to the earth.

Essential Actions Required by National and International Leaders and Organizations

I. An International Treaty or Convention on Electrosmog must be adopted by all nations

The number of antennas and their distance from people and wildlife must be strictly regulated. The elements of an international treaty should include the following:

A. Phasing out and eventual prohibition of personal wireless devices, including mobile devices and WiFi

At present there are about 15 billion mobile devices and 6 million mobile phone masts; the earth cannot survive this. Private individuals should not have the right to irradiate

their neighbors. Businesses should not have the right to irradiate their patrons.

B. Limiting antennas and devices that emit radiation to radio and television stations, emergency services such as police and fire departments, and radar for civil defense, aviation and shipping

C. Limiting the location, number, and power of civil defense radars

The present situation of unlimited power has allowed 3-billion-watt radars such as PAVE PAWS, which has irradiated millions of people on both coasts of the United States for more than four decades (16).

A five-year investigation into the health and environmental effects of a civil defense radar in Latvia after the end of the Cold War resulted in the decommissioning and removal of that radar. School children in the area—even children who lived 20 kilometers away—had impaired motor function, memory and attention, reduced lung capacity, and elevated white blood cell counts. The entire local population suffered from headaches, sleep disturbances and elevated white blood cells. Human reproduction was affected: 25 percent fewer boys than girls were born during the years the radar operated. Chromosome damage was found in local cows. Nest-boxes near the radar were occupied by extremely low numbers of birds. The average growth rings of trees during the years of the radar's operation were only half as wide as before the radars were constructed, and study of pine cones revealed the trees were aging prematurely. Seedlings in the area grew into deformed plants with reduced reproductive capacity (17, 18, 19, 20, 21, 22, 23, 24).

D. Phasing out weather radars, as they do more harm than good

There are an estimated 1,500 of these extremely powerful installations scattered throughout the world. Each of the 160 NEXRAD radars in the United States has an EIRP (Effective Isotropic Radiated Power) of 32 gigawatts (32 billion watts) (25). These radars are heavily irradiating people and wildlife, and are neither reliable nor essential to weather forecasting (26).

E. Prohibition of antennas inside national parks, wildlife preserves and protected nature areas

A 2015 report to UNESCO detailed the devastating impact of communication antennas inside a World Heritage Site in Australia. When a telecommunication tower atop Mount Nardi began to convert its antennas from analog (2G) to digital (3G) in 2002, a steady increase in species diversity suddenly reversed and became a steady *decrease* in species diversity. In 2002 insect populations and diversity began to decline. In 2009, enhanced 3G was installed, along with an additional 150 pay television channels. 27 bird species promptly left the mountain, and insect volumes and species dropped dramatically. In late 2012 and early 2013 4G was installed, and 49 more bird species promptly left the mountain.

“From this time, all locally known bat species became scarce, 4 common species of cicada almost disappeared, as well as the once enormous, varied population of moths & butterfly species. Frogs and tadpole populations were drastically reduced; the massive volumes and diverse species of ant populations became uncommon to rare... [F]rom 70 to 90 % of the wildlife has become rare or has disappeared from the Nightcap National Park within a 2-3 km radius of the Mt. Nardi tower complex” (27).

F. Prohibition of the manufacture of vehicles with wireless technology and radar

WiFi, Bluetooth, wireless ignitions, wireless CarPlay, wireless tire pressure monitors, and radar are just a few of the in-car systems that have turned the small, reflective metallic bodies of vehicles into intensely microwaved chambers. To these are being added in-car 5G hotspots that are turning many new vehicles into autonomous mobile devices, using vehicle-to-vehicle, vehicle-to-pedestrian, vehicle-to-network, and vehicle-to-highway communication.

G. Prohibition of smart meters, smart highways, smart cities, and the Internet of Things

Smart meters are being placed on every home and business in the world, and are turning all the wiring inside the walls of every home and business into a radiating antenna.

Microchips and antennas are being placed in every machine, every appliance, and almost every consumer product in the world as part of the Internet of Things, and there are predictions of as many as one trillion antennas communicating wirelessly with one another in the near future. These all irradiate the entire population at close range, including inside their homes and businesses, without any choice and without possibility of escape.

H. Halting the launch of satellites, and phasing out most private, public and military use of space

The functioning of all living organisms is regulated by their electromagnetic environment, including the magnetic field of the earth, the vertical electric field between earth and ionosphere, the global electric circuit, the Schumann resonances, etc. If the electromagnetic environment of the earth is altered, life on earth will not long survive.

Both the number of satellites in orbit and the radiation they emit are completely out of control. Some satellites

already have an effective radiated power of 83 million watts. Some are capable of emitting 5,000 individual beams. More than 8,000 satellites are already in orbit, and thousands more are being sent into space by near-daily rocket launches. Not only are they exposing every square meter of land and oceans to their radiation, but they are polluting the global electric circuit, which includes our bodies, with all of their pulsations and modulation patterns.

This is degrading all of life and causing pandemics, extinctions, and forest die-off, which cannot be successfully addressed without halting the radiation in and from space (4).

I. Prohibition of underwater wireless communication in the oceans

Along with national parks and nature preserves, the oceans should be absolutely protected from radiation.

Governmental, commercial and military interests have been collaborating to create Smart Oceans and build the Internet of Underwater Things. To do this they are building cell towers on the ocean floor, putting relay antennas in the depths of the ocean, and deploying smart ships, smart submarines, and underwater robots. The goal is to enable broadband wireless communication from any point on or in the oceans to anywhere else on the planet, up to and including "real-time video streaming from underwater" everywhere in every ocean (28).

RF radiation is being used in the oceans for short- to medium-range communication, and is destroying ocean life the same way it is destroying land-based life. Acoustic waves are being used for long-range communication, and are deafening fish and ocean mammals with sound as loud as 202 decibels.

The fishing industry is also using underwater radar to locate and capture fish with a precision and on a scale that is devastating to ocean life (29).

All underwater wireless communication and radar must be halted.

II. Churches and other religious buildings should remove antennas and WiFi networks from their premises

Churches have become a prime target by telecommunications companies for the installation of antennas, often hidden inside false chimneys or fake bell towers. These antennas earn a lot of money for churches but turn them into hazardous environments for their worshippers and visitors.

III. Schools must remove mobile phone masts and WiFi routers and prohibit mobile phones

Schools are among the most intensely irradiated environments in society today, consequently the worst and unhealthiest places for our children to spend their growing years. Every classroom has one or more WiFi routers in it, together with dozens of children sitting in close proximity to one another every day all day, all of them with cell phones and wireless computers, irradiating one another at all times. Like churches, schools are earning money renting their properties to telecommunications companies for the installation of mobile phone masts.

All masts and all WiFi antennas must be removed from all school properties, and children must be prohibited from bringing cell phones to school.

IV. Religious, political and community leaders should encourage congregations and constituencies to get rid of their cell phones and other wireless devices

Nothing is more important today in the stewardship of our

planet.

V. Medical schools should incorporate education on EMFs into curriculums, and classes in electromagnetic health should be required for continuing education

The books and studies are there by the tens of thousands. They sit on the shelves of medical school libraries gathering dust and being ignored. All that is required is to organize them into the curriculum and the base of knowledge required of every physician in order to earn a medical degree.

VI. Environmental organizations must form chapters on electrosmog, and must cease using wireless technology as a tool for monitoring and research

The rapid declines in biodiversity and species populations cannot be successfully addressed without reducing electromagnetic pollution which is causing half or more of the observed declines. As long as electrosmog is not addressed head-on, all of these problems will continue to be blamed on other things: climate change, land use, deforestation, pesticides, etc. Some of the means now being used to combat climate change, for example solar and wind energy, are worsening electrosmog and further decimating species. Some of the means to study these problems, for example GPS and radio tracking of wildlife, are diminishing wildlife instead.

All antennas must be removed from protected nature areas, wildlife preserves, and oceans. Radio tracking devices are deadly (30, 31, 32, 33, 34, 35, 36, 37). They must be removed from all wildlife and not put on any more animals, birds, insects, or fish.

VII. Non-ionising radiation must be regulated by national environmental agencies with no conflicts of interest

In many countries, radio frequency (RF) radiation from telecommunications facilities and devices is regulated by the

same agency that is charged with promoting those facilities and devices. This is an obvious conflict of interest.

Most governments defer to guidance from the International Commission on Non-Ionizing Radiation Protection (ICNIRP) or the World Health Organization, which also defers to the ICNIRP. The ICNIRP is not an environmental agency. It is a self-appointed private organization with 14 members answerable to no one (38). Its exposure guidelines are based on heating only, as though there were no other effects. In the United States, the agency that both regulates and promotes the telecommunications industry is the Federal Communications Commission (FCC). Like the ICNIRP, the FCC bases its exposure guidelines for humans on heating effects only, and completely ignores the effects on the environment.

RF radiation should be regulated transparently within each nation by their own environmental agencies based on the totality of science. It should be addressed within the UN not by the World Health Organization, but by the United Nations Environment Programme, which presently does not address it at all. And it should be subject to an international treaty and a convention on Electrosmog, as per point 1.

Conclusions

The policy considerations presented in this brief have their basis in science, and in the protection of human rights, human health and the environment. They were developed in response to an emergency situation in which the irradiation of the earth is accelerating at such a rapid rate that it has become the single most urgent threat to life on earth today. The recommended actions by political leaders, religious leaders, organizations, schools, and government agencies provide a path to health and survival.

References

1. Aleksandr S. Presman. *Electromagnetic Fields and*

Life (NY: Plenum Press 1970), p. 31, Figure 11.

2. Robert O. Becker. *The Body Electric* (NY: Morrow 1985).
3. Sulman, Felix Gad. *The effect of air ionization, electric fields, atmospherics and other electric phenomena on man and animal*. American Lecture Series, Publ. no. 1029 (Charles C. Thomas Publisher, Springfield IL, 1980; 398 pp.).
4. Arthur Firstenberg (2020). *The Invisible Rainbow: A History of Electricity and Life* (White River Junction, VT: Chelsea Green 2020, 560 pp.).
5. Cucurachi et al. A review of the ecological effects of radiofrequency electromagnetic fields (RF-EMF). *Environment International* 51: 116-140 (2013). <https://www.sciencedirect.com/science/article/pii/S0160412012002334/pdf?isDTMRedir=true&download=true>
6. Alain Thill. Biologische Wirkungen elektromagnetischer Felder auf Insekten. *Umwelt Medizin Gesellschaft* 33(3) Suppl: 1-27 (2020). https://kompetenzinitiative.com/wp-content/uploads/2020/09/Thill_2020_Review_Insekten.pdf
7. Blake Levitt, Henry C. Lai and Albert M. Manville II. Effects of non-ionizing electromagnetic fields on flora and fauna, Part 2 impacts: how species interact with natural and man-made EMF. *Reviews on Environmental Health* 37(3): 327-406 and Supplements 1-4 (2021). <https://doi.org/10.1515/reveh-2021-0050>
8. Allan H. Frey. Is a toxicology model appropriate as a guide for biological research with electromagnetic fields? *Journal of Bioelectricity* 9(2): 233-234 (1990). <https://www.tandfonline.com/doi/pdf/10.3109/15368379009119811>
9. Igor Belyaev. Duration of Exposure and Dose in Assessing Nonthermal Biological Effects of Microwaves. In *Dosimetry in Bioelectromagnetics* (CRC Press 2017), pp. 171-184.
10. Y. Belyaev et al. Resonance effect of millimeter waves

in the power range from 10^{-19} to 3×10^{-3} W/cm² on *Escherichia coli* cells at different concentrations. *Bioelectromagnetics* 17: 312-321 (1996). [https://onlinelibrary.wiley.com/doi/abs/10.1002/\(SICI\)1521-186X\(1996\)17:4%3C312::AID-BEM7%3E3.0.CO;2-6](https://onlinelibrary.wiley.com/doi/abs/10.1002/(SICI)1521-186X(1996)17:4%3C312::AID-BEM7%3E3.0.CO;2-6)

11. William Bise. Low power radio-frequency and microwave effects on human electroencephalogram and behavior. *Physiological Chemistry and Physics* 10(5): 387-398. <https://pubmed.ncbi.nlm.nih.gov/751078/>
12. Bertil R. R. Persson et al. Blood-brain barrier permeability in rats exposed to electromagnetic fields used in wireless communication. *Wireless Networks* 3: 455-461 (1997). <https://link.springer.com/content/pdf/10.1023/a:1019150510840.pdf>
13. Andrew Wood, Rohan Mate and Ken Karipidis. Meta-analysis of in vitro and in vivo studies of the biological effects of low-level millimetre waves. *Journal of Exposure Science & Environmental Epidemiology* 31: 606–613 (2021). <https://www.nature.com/articles/s41370-021-00307-7.pdf>
14. Carl F. Blackman. Evidence for disruption by the modulating signal. *BioInitiative Report*, Section 15, July 2007. https://bioinitiative.org/wp-content/uploads/pdfs/sec15_2007_Modulation_Blackman.pdf
15. Leif G. Salford et al. Nerve cell damage in mammalian brain after exposure to microwaves from GSM mobile phones. *Environmental Health Perspectives* 111(7): 881-83 (2003). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1241519/pdf/eh>
16. Paul Brodeur. *The Zapping of America* (NY: W.W. Norton 1977).
17. Guntis Brūmelis, Valdis Balodis, and Zanda Balode. Radio-frequency electromagnetic fields: The Skrunda

Radio Location Station case. *Science of the Total Environment* 180: 49-50 (1996). <https://www.sciencedirect.com/science/article/abs/pii/0048969795049134>

18. Anton Kolodynski and Valda Kolodynska. Motor and psychological functions of school children living in the area of the Skrunda Radio Location Station in Latvia. *Science of the Total Environment* 180: 87-93 (1996). <https://wifiinschools.com/uploads/3/0/4/2/3042232/kolodynski.pdf>
19. Zanda Balode. Assessment of radio-frequency radiation by the micronucleus test in bovine peripheral erythrocytes. *Science of the Total Environment* 180: 81-85 (1996). <https://www.sciencedirect.com/science/article/abs/pii/0048969795049231>
20. Liepa and Valdis Balodis. Monitoring of bird breeding near a powerful radar station. *The Ring* 16(1-2): 100. Abstract (1994).
21. Valdis Balodis et al. Does the Skrunda Radio Location Station diminish the radial growth of pine trees? *Science of the Total Environment* 180: 57-64 (1996). <https://www.sciencedirect.com/science/article/abs/pii/0048969795049207>
22. Tūrs Selga and Maija Selga. Response of *Pinus sylvestris* L. needles to electromagnetic fields: cytological and ultrastructural aspects. *Science of the Total Environment* 180: 65-73 (1996). <https://www.sciencedirect.com/science/article/pii/0048969795049215>
23. Magone. The effect of electromagnetic radiation from the Skrunda Radio Location Station on *Spirodela polyrhiza* (L.) cultures. *Science of the Total Environment* 180: 75-80 (1996). <https://www.sciencedirect.com/science/article/pii/0048969795049223>
24. *Microwave News*. Latvia's Russian radar may yield clues to RF health risks. September/October, pp. 12-13

- (1994). <https://www.microwavenews.com/sites/default/files/sites/default/files/backissues/s-o94issue.pdf>
25. National Telecommunications and Information Administration. NTIA Spectrum Compendium, 2700-2900 MHz, 1 September 2014. https://www.ntia.doc.gov/files/ntia/publications/compendium/2700.00-2900.00_01SEP14.pdf
26. Advantages and disadvantages of weather radar. <https://lidarradar.com/info/advantages-and-disadvantages-of-weather-radar>
27. Mark Broomhall. *Report for the United Nations Educational Scientific and Cultural Organization (UNESCO) and International Union for Conservation of Nature (IUCN)* (2017). <https://ehtrust.org/wp-content/uploads/Mt-Nardi-Wildlife-Report-to-UNESCO-FINAL.pdf>
28. Arthur Firstenberg. Cell towers on the ocean floor. 12 January 2022. <https://cellphonetaskforce.org/wp-content/uploads/2022/01/Cell-towers-on-the-ocean-floor.pdf>
29. Lindy Weilgart. *The Impact of Ocean Noise Pollution on Fish and Invertebrates*. OceanCare and Dalhousie University. 1 May 2018. <https://thegreentimes.co.za/wp-content/uploads/2022/01/impact-of-ocean-noise-pollution-on-fish-and-invertebrates.pdf>
30. Jason D. Godfrey and David M. Bryant. Effects of radio transmitters: review of recent radio-tracking studies. In: M. Williams, ed., *Conservation Applications of Measuring Energy Expenditure of New Zealand Birds: Assessing Habitat Quality and Costs of Carrying Radio Transmitters* (Wellington, New Zealand: Dept. of Conservation), pp. 83-95 (2003).
31. David Mech and Shannon M. Barber. *A Critique of Wildlife Radio-Tracking and Its Use in National Parks*. Jamestown, ND: U.S. Geological Survey, Northern Prairie Wildlife Research Center

(2002). https://eplanning.blm.gov/public_projects/nepa/51689/167135/203600/E2._A_CRITIQUE_OF_WILDLIFE_RADIO-TRACKING.pdf

32. John C. Withey et al. Effects of tagging and location error in wildlife radiotelemetry studies. In: Joshua J. Millspaugh and John M. Marzluff, eds., *Radio Tracking and Animal Populations* (San Diego: Academic), pp. 43-75 (2001).
33. Roger Burrows, Heribert Hofer, and Marion L. East. Demography, extinction and intervention in a small population: the case of the Serengeti wild dogs. *Proceedings of the Royal Society of London B* 256: 281-92 (1994). <https://royalsocietypublishing.org/doi/epdf/10.1098/rspb.1994.0082>
34. Roger Burrows. Population dynamics, intervention and survival in African wild dogs (*Lycaon pictus*). *Proceedings of the Royal Society of London B* 262: 235-45 (1995). <https://royalsocietypublishing.org/doi/abs/10.1098/rspb.1995.0201>
35. Jon E. Swenson et al. Effects of ear-tagging with radiotransmitters on survival of moose calves. *Journal of Wildlife Management* 63(1): 354-58 (1999).
36. Moorhouse, Tom P. and David W. Macdonald. Indirect negative impacts of radio-collaring: Sex ratio variation in water voles. *Journal of Applied Ecology* 42: 91-98 (2005). http://bearproject.info/old/uploads/publications/A20%201999%20Effects%20of%20ear%20tagging_moose%20.pdf
37. *Reader's Digest*. The Snow Tiger's Last Stand. November 1998.
38. Buchner K, Rivasi M. The International Commission on Non-Ionizing Radiation Protection: Conflicts of interest, corporate capture and the push for 5G. European Parliament report. Brussels June 2020. <https://ehtrust.org/the-international-commission-on-non-ionizing-radiation-protection-conflicts-of->

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After Being Fitted With Cell Phones, Horses at Churchill Downs Began to Die During Races

[After Being Fitted With Cell Phones, Horses at Churchill Downs Began to Die During Races](#)



Horse named Lost in Limbo dies at Churchill Downs

Racehorses at Churchill Downs

by [Arthur Firstenberg](#), [Cellular Phone Taskforce](#)

June 8, 2023

Racehorses are among the most finely tuned, exquisitely sensitive creatures on earth. So what happens when you give them all cell phones to wear during a race? They start dropping like... well, horses.

That is exactly what started happening this spring at Churchill Downs in Louisville, home of the world-famous Kentucky Derby. Churchill Downs hosts three “meets” every year during which there are horse races four to five days a week – a spring meet lasting all of May and June; a September meet; and a fall meet throughout November. The spring meet this year at the Downs began on April 29 and was to continue until July 3. And beginning on April 29, and in every race on every day

thereafter, every horse was fitted with a device they had never worn before. It is a wireless device, shaped like an iPhone, that fits into the cloth underneath the saddle on the horse's back. Horses also began wearing these devices this spring during morning workouts.



This STRIDESafe device monitors the horse's movements 2,400 times per second throughout the race, sending 2,400 pulses of radio frequency (RF) radiation every second through the body of the horse. It also contains a GPS component that communicates with global positioning satellites. It also communicates with the RFID chip implanted in the left side of every horse's neck, ensuring that the chip also emits radiation throughout the

race. And because every racehorse wears horseshoes made of aluminum, which is one of the best conductors, the frequencies that are conducted from both the STRIDESafe device and the RFID chip throughout the horse's body are absorbed and reradiated by its four shoes. Each horse, then, carries not one but six continuously radiating antennas throughout each race at Churchill Downs. So with 14 horses normally competing in each race, there are 84 antennas among animals in close proximity to one another running around the track.



And on April 29, 2023, horses racing at Churchill Downs began to die during races or suffer such severe injuries during races that they were euthanized. So many horses have died this spring that on June 2 it was announced that the spring meet at the Downs would be suspended as of June 10. Officials at Churchill Downs are panicked because horses racing there have died in much larger numbers this spring than ever before. In 2022, nationwide, about 1.25 deaths occurred for every 1,000 horses starting at the gate. But since April 29, 2023, 12 deaths have occurred among just 1,600 starts at Churchill Downs, a sudden and unprecedented 8-fold increase in racehorse mortality.

Officials have carefully inspected the track and every part of the racing grounds and have found no change in any part of it from previous meets, and no reason for horses to be more prone to injury or collapse. But they have the same blind spot as the rest of society: they treat wireless devices, and the radiation they emit, as if they do not exist.

The horse named Parents Pride simply collapsed and died for no apparent reason during a race on April 29. No drugs were found in her system, and no poisons. She was running normally before

the race. No abnormalities were found in her heart, brain or lungs.

Code of Kings “flipped” and broke his neck in the paddock just prior to a race and was euthanized, also on April 29. The paddock, also called the parade ring, is where horses are paraded before a race so the racegoers can get a good look at them.

Take Charge Briana suffered catastrophic damage to her right foreleg during a race on May 2 and was euthanized.

Chasing Artie completed his race on May 2 and then collapsed and died on his way to the unsaddling area, for no apparent reason.

Chloe’s Dream suffered a “catastrophic injury” to his right knee during a race on Derby Day, May 6, and was euthanized.

Freezing Point fractured his left forelimb during a race on Derby Day, May 6, and was euthanized. His jockey said that he was not bumped during the race and that the track was in good condition.

Bosque Redondo finished his race on May 13 but was taken away in a horse ambulance and was euthanized due to unspecified injuries.

Rio Moon was at the finish line of a race on May 14 when he suffered a “catastrophic injury” to his left foreleg and then was euthanized.

Swanson Lake finished his race on May 20 but was immediately taken to a veterinarian where he was euthanized because of a “significant injury” to his left hind leg.

Lost in Limbo, the horse pictured at the top of this newsletter, was removed from the track near the finish of a race on May 26. He had crashed nose-first on the track and lay heaving in the dirt. He was so jittery even before the race

that he threw his jockey before it started and bolted. After the race a veterinarian found a "significant injury" to his left front leg and he was euthanized.

Kimberley Dream ruptured a ligament in her left front leg during a race on May 27 and was euthanized.

And two days before the spring meet began, while training on the racetrack on April 27, Wild on Ice broke his left hind leg and was euthanized.

We have known for decades that horses' lives are shattered by radio waves. Hearings were held in Christchurch, New Zealand, and racehorse trainer Penny Hargreaves spoke out [in an interview](#) published in 1998. An FM radio tower in Ouruhia had had such devastating effects on her 90 horses that she was forced to relocate them to a different part of Canterbury. All her horses were affected, some more than others, and two died.

"They were very nervous and jumpy," she said. "They all seemed to have sore feet. Horses who had travelled by trailer for years were losing balance while travelling. We have several hot spots around our yard where the horses become very volatile and hurt themselves and us.

"Our very valuable colt had serious health problems and walked as if his feet hurt. He could not bear to be shod. We had many vets look at him to try and solve his problems, but without any satisfactory answers. We finally turned him out in a paddock which has a large hay barn and trees between him and the tower. Within a month he had no problems at all. Back in his old yard, the problem returned.

"The blacksmith gave evidence at our hearing on the effect of the radio waves on our horses' feet. The aluminum conducts electricity and their feet had changed shape, had huge cracks where the nails went and were very sensitive inside.

"We had weekly problems with infections we have never had

before, our vet bills were horrendous.”

Nervous and jumpy racehorses with sore feet and lack of coordination. Exactly what has been happening at Churchill Downs during the spring meet this year.

When I learned what was happening at Churchill Downs this spring I sent an email to Dr. Jennifer Durenberger, suggesting to her that the STRIDESafe devices, which have been deployed at Churchill Downs for the safety of the horses, are instead killing them. She has not responded. Dr. Durenberger, a veterinarian, is the Director of Equine Safety & Welfare at the Horseracing Integrity and Safety Authority (HISA). She has been leading a review of the records of the horses that died.

If you are a veterinarian or have experience with horses and would like to help, please send me an email to arthur@cellphonetaskforce.org. This is an opportunity, if we can get Churchill Downs, HISA, and the owners of the racehorses that run in the Kentucky Derby to acknowledge what is happening and get rid of these new wireless devices – an opportunity to educate the rest of the world as well and catalyze a change of direction for us all.

Arthur Firstenberg

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Amphibians in the Mine: “The Frogs and Salamanders Are Telling Us...It Is a Matter of Their Survival and Ours.”

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“Salamanders, toads and frogs have more vitality than other forms of life. The density of their strings – their meridians – that connect them to earth and sky is greater. It is why they rarely (and salamanders never) get cancer: both their external and internal communication systems are too strong for their cells to escape control. It is why frogs can partially regenerate lost limbs, and salamanders can regenerate them completely. It is why salamanders can even regenerate their heart – and do it within hours – if half of it is cut out – an astounding fact discovered by Dr. Robert O. Becker and written about in chapter 10 of his classic book, The Body Electric.

It is also why amphibians are dying out. Animals with such a strong connection to Earth’s orchestra – who are so attuned to it that they have survived for 365 million years – cannot withstand the chaos that we have superimposed on it during the past half century and more – the chaos that we have injected into the living circuitry with our radio and TV stations, our radar facilities, our cell phones and

cell towers, and our satellites. “

[...]

“It is why wireless technology, which has placed a source of lethal radiation into the hands of almost every man, woman and child on earth, is such an emergency and must come rapidly to an end if we are to save our planet and the millions of other species who are still trying to share it with us. The frogs and salamanders are telling us that it is not a matter of choice, and it is not a matter of how far from our heads we hold our phones. It is a matter of their survival and ours.”

Amphibians in the Mine

by Arthur Firstenberg, Cellular Phone Task Force

March 29, 2023



Communication towers inside Monteverde Cloud Forest Biological Preserve

“Amphibians were here when the dinosaurs were here, and they survived the age of mammals. If they’re checking out now, I think it is significant.”

– David Wake, Director of the Museum of Vertebrate Zoology, University of California, Berkeley, 1990

They are ancient animals with abilities to survive beyond belief. They live both in water and on land. They can breathe through their skin. They can regenerate limbs and organs. They don’t get cancer. They have been around for 365 million years, and have survived four mass extinctions during the history of life on Earth. Yet today, they are disappearing more rapidly than any other class of animals. By their death, they are screaming: *Turn off your cell phones! Now, before it is too late!*

Even before cell phones, the proliferation of radio and TV towers, radar stations, and communication antennas in the 1960s, 1970s and 1980s began killing off these most hardy, well-adapted, and important forms of life.

- The northern leopard frog, *Rana pipiens* – the North American green frog that croaked from every marsh, pond and creek when I was growing up – was already extremely rare by the end of the 1980s.
- In the Colorado and Wyoming Rocky Mountains, boreal toads used to be so numerous that, in the words of Paul Corn of the United States Fish and Wildlife Service, “You had to kick them out of the way as you were walking down the trail.” By 1990 they were difficult to find at all.
- Boreal chorus frogs on the shores of Lake Superior, once innumerable, were extremely rare by 1990.
- In the 1970s David Wake could turn up eighty or more

salamanders under the bark of a single log in a pine forest near Oaxaca, Mexico. In the early 1980s he returned and was able to find maybe one or two after searching the forest all day.

- Until 1979 frogs were abundant and diverse at the University of São Paulo's field station at Boracea, Brazil, according to Stanley Rand of the Smithsonian Tropical Research Institute. But when he returned in 1982, of thirty common frog species, six had disappeared entirely and seven had decreased in number drastically.
- In 1974 Michael Tyler of Adelaide, Australia discovered a new frog species that brooded its young in its stomach. It lived in a 100-square-kilometer area in the Conondale Ranges, 60 kilometers north of Brisbane, and was so common that he could collect a hundred in a single night. By 1980 it was extinct.
- The golden toad lived only in a 320-acre stunted forest in Costa Rica's supposedly pristine, protected Monteverde Cloud Forest Preserve. In the early 1980s Marc Hayes of the University of Miami typically counted 500 to 700 males at one of the species' breeding sites. After 1984 that site never had more than a dozen males. At another site Martha Crump observed a thousand males in 1987, but only one in 1988 and another single male frog in 1989. Today the species is extinct.

In 1990, when I began researching this magical class of vertebrates, there were not many amphibians left in all of Europe. Out of more than five thousand known species worldwide, about a dozen were doing well.

By the time I wrote *Microwaving Our Planet* in 1996, every species of frog and toad in Yosemite National Park had become scarce. Seventy-five species of the colorful harlequin frogs that once lived near streams in the tropics of the Western Hemisphere from Costa Rica to Bolivia had not been seen in a

decade. Of the 50 species of frogs that once inhabited the Monteverde Cloud Forest Preserve, 20 were already extinct.

Similar population crashes were occurring in North, Central and South America, Europe, and Australia. Only in Africa and Asia, when I wrote that book, were amphibians doing well. That has since changed. On March 15, 2023, a team of 19 American scientists published a paper titled "Continent-wide recent emergence of a global pathogen in African amphibians." Amphibians, say the authors, were doing fine on the dark continent until about the year 2000 – which coincidentally is when telecommunications companies began lighting up that continent with cell phone signals in earnest.

A couple of years earlier, in December 1997, I had published an article titled "The Informationization of the Third World." I quoted President Clinton, who had lamented that "More than half the world's people are a two days' walk from a telephone." I highlighted Bangladesh, where there were plans to bring cell phones to 40,000 of the country's 68,000 villages over the next four years. In Africa, where several countries still had less than one conventional phone per one thousand people, some two dozen countries were introducing cellular systems. The debate, in the world's press, was about what this would do to the traditional village, and whether this was a desirable thing from a cultural point of view. I took a broader view:

"An even more important question is what will happen to nature? Can nature survive at all in a distanceless world? I think the answer, if ecologists and environmentalists brought their knowledge to bear, would be a resounding no. Biodiversity depends on distance. What is not often acknowledged is that cultural diversity also depends on distance, and that culture is nature-based. Local dialects, and local handicrafts, and local dress, and local economies, and local varieties of crops, and local varieties of plants and animals – i.e. local ecosystems – depend on the village's

being a two days' walk from a telephone. The most basic reason for the disappearance of species is that very few of them can withstand the global exploitation that must come when there is instantaneous transportation and communication."

And then there is the radiation. The effects of microwave radiation in Africa, as cell towers began serving larger numbers of its residents, are now apparent: amphibians have been disappearing all over the continent. This has been blamed on a type of fungus called *Batrachochytrium dendrobatidis* (Bd), rare in Africa prior to the year 2000. But whether it is the fungus that is killing frogs, toads and salamanders, or whether it is the radiation that is killing them, and that is allowing a fungus to grow in their devitalized bodies, is a question no one is asking. For example, why, in Cameroon, where 83 percent of the population own mobile phones, and four cell phone providers cover a lot of the country, is the fungus found in 17 percent of all amphibians collected – while in neighboring Equatorial Guinea, where only 40 percent of the population own mobile phones and there are no cell towers except in the coastal city of Bata, there is zero fungus? Why, in South Africa, where 90 percent of the population own mobile phones, and coverage is good in most of the country, is the fungus found in 23 percent of amphibians collected – while in neighboring Mozambique, where only 43 percent of the population has a mobile phone, zero fungus has been found among the amphibians collected? Could it be because cell phones are still useless in much of northern Mozambique, and that is where all the amphibians in that country have been collected: Mount Mabu, Mount Namuli, Mount Ribáuè, and Balama?

Most of the suggested explanations for the global die-off make little sense. Climate change is being widely blamed, yet scientists looking for an association of population crashes with temperature or other weather factors have found none. Why, worldwide, are amphibians declining faster at high

altitudes than at lower elevations where the climate is warmer? Could it be because the higher elevations receive more radiation, and because many antennas are found on mountains? Scientists have found no evidence that fish or non-native amphibians have caused native amphibians to go extinct. Land use change does not explain sudden population crashes in pristine protected areas. Pesticide use does not correlate with the population declines.

These inconsistencies seem to be escaping the scientists who are looking for answers. They are escaping them because they have a terrific blind spot: they do not see the radiation at all, it does not exist for them.

The single most rapid and catastrophic crash in amphibian populations occurred in the year 1988 in the Monteverde Cloud Forest Biological Preserve in Costa Rica, a location that has long puzzled scientists because it is strictly protected and supposedly untouched and pristine. This is what I thought as well until I began to do research for this article. I just found out, to my astonishment, that right in the middle of this two-square-mile preserve, on top of a hill called Cerro Amigos ("Friends Hill"), is an antenna farm called Las Torres ("The Towers"). A photo of the top of that hill is at the top of this article. As of 2012, there were 17 radio, TV, cell phone, and other types of communication towers on that hill, a few of them dating from the 1970s and 1980s. I am making inquiries to try to pin down what was added in 1988. If you live in Costa Rica and know some of this history, please contact me.

More Connected Means More Vulnerable

"Is It a Hazard to Be Healthy?" asked Dr. D. B. Armstrong in the *Boston Medical and Surgical Journal* in 1918. If you were undernourished, physically handicapped, anemic, or tuberculous, you were much less likely to get influenza and much less likely to die from it if you did. The vast majority

of people who died from the Spanish influenza were pregnant women and healthy young adults. Doctors were seriously discussing whether they were actually giving their patients a death sentence by advising them to keep fit!

Amphibians are dying for the same reason. What is completely neglected in the sciences of biology, medicine and ecology, is our electrical connection to earth and sky. As I discuss in chapter 9 of my book, *The Invisible Rainbow*, we are all part of the global electrical circuit that courses through the sky above us, flows down to earth on atmospheric ions and raindrops, enters the tops of our heads into our bodies, flows through our meridians, exits into the earth through the soles of our feet, travels along the surface of the earth, and flows back up to the sky on lightning bolts during thunderstorms. Those of us who are most vital and have the strongest connection to earth and sky – healthy, vigorous young adults and pregnant women – died in the largest numbers in the 1918 flu, which was caused not by a virus but by the use of enormously powerful VLF radio stations by the United States when it entered the First World War. The same thing happened in 1889 (introduction of AC electricity), 1957 (first construction of civil defense radars), and 1968 (first constellation of military satellites).

“In each case—in 1889, 1918, 1957, and 1968—the electrical envelope of the earth, to which we are all attached by invisible strings, was suddenly and profoundly disturbed. Those for whom this attachment was strongest, whose roots were most vital, whose life’s rhythms were tuned most closely to the accustomed pulsations of our planet – in other words, vigorous, healthy young adults, and pregnant women – those were the individuals who most suffered and died. Like an orchestra whose conductor has suddenly gone mad, their organs, their living instruments, no longer knew how to play.”

Salamanders, toads and frogs have more vitality than other forms of life. The density of their strings – their meridians

– that connect them to earth and sky is greater. It is why they rarely (and salamanders never) get cancer: both their external and internal communication systems are too strong for their cells to escape control. It is why frogs can partially regenerate lost limbs, and salamanders can regenerate them completely. It is why salamanders can even regenerate their heart – and do it within hours – if half of it is cut out – an astounding fact discovered by Dr. Robert O. Becker and written about in chapter 10 of his classic book, *The Body Electric*.

It is also why amphibians are dying out. Animals with such a strong connection to Earth's orchestra – who are so attuned to it that they have survived for 365 million years – cannot withstand the chaos that we have superimposed on it during the past half century and more – the chaos that we have injected into the living circuitry with our radio and TV stations, our radar facilities, our cell phones and cell towers, and our satellites.

It is why, in 1996, when parades of cell towers were marching from coast to coast in the United States, and sprouting at tourist destinations, mutant frogs were turning up by the thousands in pristine lakes, streams and forests in at least 32 states. Their deformed legs, extra legs, missing legs, missing eyes, misplaced eyes, misshapen tails, and whole body deformities frightened school children out on field trips.

It is why developing frog embryos and tadpoles exposed by researchers in Moscow in the late 1990s to a (wired) personal computer developed severe malformations including anencephaly (absence of a brain), absence of a heart, lack of limbs, and other deformities that are incompatible with life.

It is why, when tadpoles were kept for two months in a tank on an apartment's terrace in Valladolid, Spain, 140 meters from a cell tower, 90 percent of them died, versus only 4 percent mortality in an identical tank that was shielded from radio waves.

It is why wireless technology, which has placed a source of lethal radiation into the hands of almost every man, woman and child on earth, is such an emergency and must come rapidly to an end if we are to save our planet and the millions of other species who are still trying to share it with us. The frogs and salamanders are telling us that it is not a matter of choice, and it is not a matter of how far from our heads we hold our phones. It is a matter of their survival and ours.

Selected Bibliography

Balmori, Alfonso. The incidence of electromagnetic pollution on the amphibian decline: Is this an important piece of the puzzle? *Toxicological & Environmental Chemistry* 88(2): 287-299 (2006).

Balmori, Alfonso. Mobile phone mast effects on common frog (*Rana temporaria*) tadpole: The city turned into a laboratory. *Electromagnetic Biology and Medicine* 29: 31-35 (2010).

Becker, Robert O. and Gary Selden. *The Body Electric* (NY: William Morrow 1985).

Berger, Lee, Rick Speare, Peter Daszak, et al. Chytridiomycosis causes amphibian mortality associated with population declines in the rain forests of Australia and Central America. *Proceedings of the National Academy of Sciences* 95: 9-31-9036 (1998).

Berger, Lee, Alexandra A. Roberts, Jamie Voyles, et al. History and recent progress on chytridiomycosis in amphibians. *Fungal Ecology* 19: 89-99 (2016).

Bittek, Jason. Half of all amphibian species at risk of extinction. *National Geographic*, May 8, 2019.

Blaustein, Andrew R. and Pieter TJ Johnson. The complexity of

deformed amphibians. *Frontiers in Ecology and the Environment* 1(2): 87-94 (2003).

Collins, James P. Amphibian decline and extinction: What we know and what we need to learn. *Diseases of Aquatic Organisms* 92: 93-99 (2010).

Drost, Charles A. and Gary M. Fellers. Collapse of a regional frog fauna in the Yosemite area of the California Sierra Nevada, USA. *Conservation Biology* 10(2): 414-425 (1996).

Firstenberg, Arthur. The Informationization of the Third World. *No Place To Hide* 1(3): 1-2 (Dec. 1997).

Firstenberg, Arthur. *Microwaving Our Planet: The Environmental Impact of the Wireless Revolution* (NY: Cellular Phone Task Force 1996, 1997).

Firstenberg, Arthur. *The Invisible Rainbow: A History of Electricity and Life* (White River Junction, VT: Chelsea Green 2020, 560 pages).

Ghose, Sonia L., Tiffany A. Yap, Allison Q. Byrne, et al. Continent-wide recent emergence of a global pathogen in African amphibians. *Frontiers in Conservation Science* 4: 1069490 (2023).

González-del-Pliego, Pamela, Robert P. Freckleton, David P. Edwards, et al. Phylogenetic and trait-based prediction of extinction risk for data-deficient amphibians. *Current Biology* 29: 1557-1563 (2019).

Hoperskaya, O.A., L.A. Belkova, M.E. Bogdanov, and S.G. Denisov. The action of the "Gamma-7N" device on biological objects exposed to radiation from personal computers. In *Electromagnetic Fields and Human Health: Proceedings of the Second International Conference*, Moscow, Sept. 20-24, 1999, pp. 354-355, Abstract.

Houlahan, Jeff E., C. Scott Findlay et al. Quantitative

- evidence for global amphibian population declines. *Nature* 404: 752-755 (2000).
- Laurance, William F. Global warming and amphibian extinctions in eastern Australia. *Australian Ecology* 33: 1-9 (2008).
- Lips, Karen R., Patricia A. Burrowes, Joseph R. Mendelson III, and Gabriela Parra-Olea. Amphibian declines in Latin America: Widespread population declines, extinctions, and impacts. *Biotropica* 37(2): 163-165 (2005).
- McCallum, Malcolm L. Amphibian decline or extinction? Current declines dwarf background extinction rate. *Journal of Herpetology* 41(3): 483-491 (2007).
- Norris, Scott. Ghosts in our midst: Coming to terms with amphibian extinctions. *BioScience* 57(4): 311-316 (2007).
- Pound, J. Alan and Martha I. Crump. Amphibian declines and climate disturbance: The case of the golden toad and the harlequin frog. *Conservation Biology* 8(1): 72-85 (1994).
- Rose, S. Meryl. *Regeneration* (NY: Appleton-Century-Crofts 1970).
- Souder, William. An amphibian horror story. *New York Newsday*, Oct. 15, 1996, p. B19+.
- Souder, William. Deformed frogs show rift among scientists. *Houston Chronicle*, Nov. 5, 1997, p. 4A.
- Stuart, Simon N., Janice S. Chanson, Neil A. Cox, et al. Status and trends of amphibian declines and extinctions worldwide. *Sciencexpress*, October 14, 2004 (5 pages).
- Toledo, Luís Felipe, Sergio Potsch de Carvalho-e-Silva, Ana Maria Paulino Telles de Carvalho-e-Silva, et al. A retrospective overview of amphibian declines in Brazil's Atlantic forest. *Biological Conservation* 277: 109845 (2023).

Vogt, Amanda. Mutant frogs spark a mega mystery scientists worry could be an early warning of environmental danger. *Chicago Tribune*, August 4, 1998, sec. 4, p. 3.

Vredenburg, Vance T., Ronald A. Knapp, Tate S. Tunstaff and Cheryl J. Briggs. Dynamics of an emerging disease drive large-scale amphibian population extinctions. *Proceedings of the National Academy of Sciences* 107(21): 9689-9694 (2010).

Wake, David B. and Vance T. Vredenburg. Are we in the midst of the sixth mass extinction? A view from the world of amphibians. *Proceedings of the National Academy of Sciences* 105(Suppl. 1): 11466-11473 (2008).

Watson, Traci. Frogs falling silent across USA. *USA Today*, August 12, 1998, p. 3A.

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