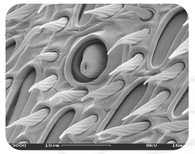
ARE WE DOING MORE DAMAGE TO AN ALREADY FRAGILE ENVIRONMENT -- MORE QUICKLY THAN RESEARCHERS CAN STUDY, LET ALONE POLICY-MAKERS REVERSE?

The effects of non-ionizing electromagnetic fields on our natural environment is not being adequately researched. Some species are "convenient" for laboratory testing and, of course, there are clusters and epidemiological studies in humans. Many species are not studied. Those effects which have been noted have not led to appropriate policy shifts per the "precautionary principle." Individual plants and animals, vulnerable species, ecosystems and hotspots are becoming "collateral damage" as the density of artificial frequencies and fields increases.

Biodiversity is already under threat from a number of interacting factors; EMF is just one more. The deleterious effects of the combination of threats appears to be cumulative and increasing. Whereas life evolved in very specific windows of frequencies of non-ionizing (and ionizing) electromagnetic fields over millennia, this current onslaught of technologically-produced frequencies has radically changed the energy environment in which nature must attempt to survive.

This map offers links to some presentations on some of the known and suspected effects, as well as studies, related maps (with links) and several books. Because of the serious species extinctions occurring at present, we will probably never know what is really happening to our ecosystems and biodiversity. This map does not emphasize effects on humans, which are presented elsewhere.



Insect (above) and plant (right) "antennae", ideally shaped for tuning in to nature -- Callahan

A FEW OF THE REPORTED ENVIRONMENTAL EFFECTS

Plants
Treetop browning, root damage
Pollination decreases
Changes in germination timing
Ion movement changes
Enzyme changes

Animals
Migration and navigation disruption
Habitat abandonment
Behavior and mood changes
Interaction with tissue magnetite
Free radical damage, tissue changes
Genetic function/structure changes
Fertility and development changes
Tower strikes by birds

Combined
Destabilization of biofilms
Cascade of biodiversity loss
Interactions of EMF and pollution

Artificial EMF and the Environment: Learning from B. Blake Levitt, Ulrich Warnke, Philip S. Callahan, and others

www.oscillatorium.com

Articles

- Fall of a Sparrow
- Microwaving Our Planet
- Sparrows and phone masts
- Stray voltage harms livestock
- How cell phones are killing birds
- Continue to Care for the Sparrow
- Green Facts: Environment and EMF
- Disappearing Bees and EMF timeline
- Massive destruction of nature by EMF
- Panel to study EMF effect on birds, bees
- Birds, Bees and the Destruction of Nature
- Possible HAARP connection with bee homing
- Blake Levitt: Review of environmental effects
- Dr. Andrew Goldsworthy discusses cryptochrome

Related maps

- Magnetite
- Nonlinearity
- Cryptochrome
- Toxic Interactions
- Free Radical Activity
- Cellular Effects (series)
- BioEffects Overview (series)
- Biodiversity and Human Health (series)

- Tuning in to Nature
- The Magnetic Life of Agriculture
- *Philip S. Callahan books*

Tracking Devices

- Endangering wildlife
- Chip implants linked to animal tumors

Impact of Communication Towers on Wildlife, Birds, Bees

The Monster Footprint of Digital Technology

Newer

- Animal health alert
- Ocean-power, salmon
- Wave-power, marine life
- And what of the animals?
- Endangering Nature's GPS
- Towers disorient homer pigeons
- Ground currents, cows and others
- Potential danger of EMF to environment

Special Articles

- *New "Poison"*
- *The Dying Forest*
- *Masts and Wildlife*
- *Microwaves and Wildlife*
- *Insects, Frogs, and Birds*
- *Aspen seedlings and radiowaves*
- *EMF and Nature: h.e.s.e. project*
- *White nose syndrome, bats, ower map*
- *David Rothscum: The Death of Humanity*

EMF Studies

- Rabbits, fertility rate
- Rats, male infertility
- Mice, testicle damage
- Rats, behavior changes
- Mouse (transgenic), ALS
- Swine, fertilization outcome
- Rats, brain oxidative effects
- Tree frog tadpoles, mortality
- Rats, autoimmune disorders
- H. pylori, destabilizes biofilm
- Bats avoid radar installations
- Mice, spatial memory affected
- Worms, fertility, mobile phones
- Rats, stress, psychopathology
- Tadpoles, metamorphosis delay
- Rat, estrogen receptor changes
- Grain beetle, behavior changes
- Cress, calcium ion concentration
- Rats, expression of mRNA altered
- Wheat and bean, germination effects
- Sunflower, seedling enzyme changes
- Mouse, macrophage RedOx changes
- Chicken, embryo membrane disruption
- Collection of published studies on birds
- Marine species, bibliography of studies
- Rats, circadian rhythms, blood changes
- Cockroach, disrupted magnetoreception
- Rats, growth, pubertal development effects
- Tree frog tadpoles, mobile phones, city as laboratory
- Fresh water flea, deteriorated production characteristics

"...the loss of biodiversity is the only truly irreversible consequence of environmental degradation."

Stuart Pimm et al
Sustaining Life

Two migrating, navigating species