

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.

A FEW 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

- EMF/BIRDS ON SEPARATE MAP
EMF/PLANTS ON SEPARATE MAP
EMF/BEES ON SEPARATE MAP
EMF/MARINE LIFE ON SEPARATE MAP

BIRDS, BEES AND THE DESTRUCTION OF NATURE

BIRD AND WILDLIFE IMPACTS OF EMF

EMR AND ANIMALS

INDEX OF ALL MAPS RELATED TO EMF AND THE ENVIRONMENT (PDF)

IMPACT OF COMMUNICATION TOWERS ON WILDLIFE, BIRDS, BEES

NAVY'S EM WEAPONS WILL CAUSE INJURY TO LIVING BEINGS

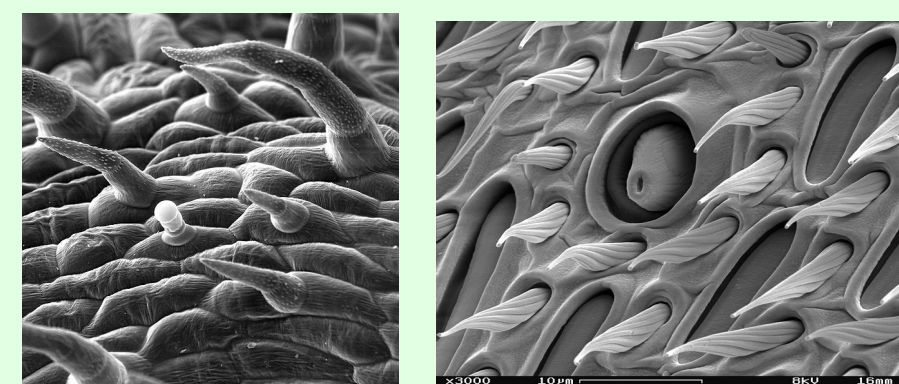
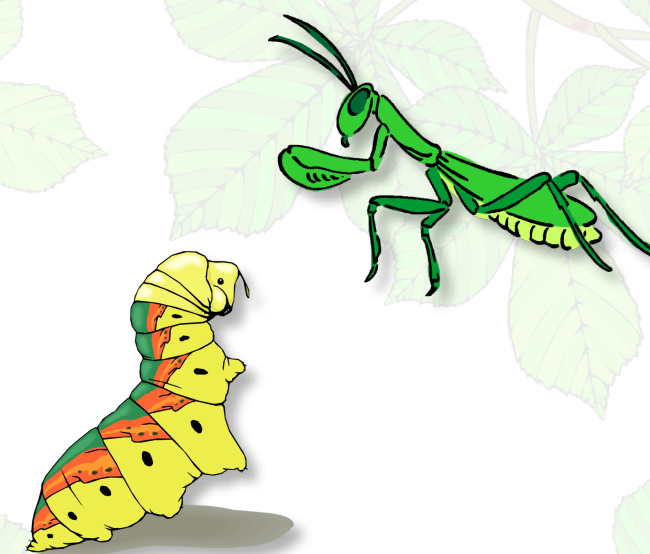
"...the loss of biodiversity is the only truly irreversible consequence of environmental degradation." Stuart Pimm et al

GLOBAL WARMING

NTP STUDY

RESONANCE

MAGNETITE, CRYPTOCHROME, MELANIN, BEES, BIRDS, EMF



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

SEE MAP LIVING ANTENNAS

PHILIP S. CALLAHAN BOOKS

- Tuning in to Nature
The Magnetic Life of Agriculture

ELECTROPATHIC STRESS IN ANIMALS AND MAN

BEES, BUTTERFLIES, WILDLIFE, EMF

MASSIVE ANIMAL STUDY: CANCER

RF-EMF: ANIMALS, BIRDS, INSECTS, TREES

MICROWAVE NEWS: NTP STUDY

ANIMALS SENSE EMF

EM SENSITIVITY, PLANT AND ANIMAL

Articles

- Who Knew? Calves' cataracts
RF, animal cancer
iPads for Cats?
Pest Busters, EMF
NIEHS study article
Birds, Bees, and Us
Sheep as WiFi routers
Wi-Fi in National Parks?
EMF and cancer in dogs
EMR in our environment
And what of the animals?
SM barn fire kills 12 horses
Endangering Nature's GPS
Can EMF shorten dog's life?
Last wild areas on earth at risk
Stray voltage harms livestock
What price your smartphone?
Physicians for the Environment
Sheep and reindeer as hotspots
Cell towers killing bees, birds, 1
Cell towers killing bees, birds, 2
Stray voltage lawsuit dairy victory
Green Facts: Environment and EMF
Mt. Ranier slated for cell coverage
Melatonin reduced in humans, animals
Antenna Towers make it a dog's Life
Panel to study EMF effect on birds, bees
Sense of smell and sight in ants perturbed
Stray voltage: guide for dairy farmers, vets
Possible HAARP connection with bee homing
Behavior of dairy herd near transmitting antenna

ARTIFICIAL EMF AND THE ENVIRONMENT



Home: Oscillatorium
Newest version this map
Date of this update: 08-24-17

TRACKING DEVICES

- Endangering wildlife
Radiotelemetry, wildlife
Microchipping your dog, cat
Microchips linked to cancer
Animal wearable devices popular
Chip implants linked to animal tumors
Chipped pets develop fast growing tumors



ELECTROSMOG HURTING WILDLIFE? 149 REFERENCES

EMF, WILDLIFE: 153 STUDIES

- Rats, male infertility
Rabbits, fertility rate
Bats averse to radar
Mice, testicle damage
Earthworm, genotoxic
Rats, behavior changes
MW, ciliary function, rats
Mouse (transgenic), ALS
Swine, fertilization outcome
Rats, brain oxidative effects
Rats, autoimmune disorders
H. pylori, destabilizes biofilm
Wildlife, phone mast effects
Mice, memory problems, ELF
Ant colony deterioration, EMF
Mice, spatial memory affected
Rats, stress, psychopathology
Rats, loss of GI interstitial cells
Worms, fertility, mobile phones
EF, adverse effects on fruit flies
Rat, estrogen receptor changes
Grain beetle, behavior changes
RF fields, emerging wildlife threat
Rats, expression of mRNA altered
Ants food memory disruption RF/MW
Monitoring ground current, dairy farm
Mouse, macrophage RedOx changes
Planaria, protozoa, response to MF
Chicken, embryo membrane disruption
Collection of published studies on birds
Rats, circadian rhythms, blood changes
Cockroach, disrupted magnetoreception
RF emerging threat to wildlife orientation
EMF, base stations, redox proteins, cows
Ants association with food, sites, inhibited
Locusts, EMF, behavior, and physiology
Rats, growth, pubertal development effects
Electric fields, adverse effects, wheat aphids
Power quality and dairy herd milk production
Earthworms, oxidation, DNA damage, MW/RF
5 species, problems due to non-linearity, more
Monarch butterfly migrates via magnetic compass
Rabbits, cellphones, lymphocyte enzyme changes
Radiotelemetry may introduce negative RF effects
Anthropogenic EM noise disrupts migratory compass
Tragedy of Commons, High Tech Risk of Wireless World



EMF Studies

- EM, Volkrodt
New "Poison"
The Dying Forest
Microwaves and Wildlife
Impact of towers, wildlife
Impact of towers, avians
Pets and the Environment
Electronic Silent Spring Book
Katie Singer: Ecosystem
How do animals see power lines?
EMF, cancer, massive animal study
Radiation from Space: GUARDS
Environ. Effects of EM Exposures
Ground current affects people, cows
Disappearing Bees and EMF timeline
Massive destruction of nature by EMF
A. Firstenberg: Silent Wireless Spring
Quality of electrical power, quality of milk
Blake Levitt: Enviro. effects of cell towers