

Our Vanishing World: Insects

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Theme: [Environment](#)

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About 12,000 years ago, late stone age humans precipitated the neolithic (agricultural) revolution that marked the start of the steady rise to civilization. Coincidentally, this occurred at the same time as the beginning of what is now known as the Holocene Epoch, the geological epoch in which humans still live.

However, since the industrial revolution commencing in about 1750, just 270 years ago, humans have been destroying Earth's biosphere with such tremendous ferocity that the Earth we inherited at the beginning of the Holocene Epoch is vanishing before our eyes. And life is vanishing with it.

While this catastrophe first gained significant public attention with the publication of Rachel Carson's book [Silent Spring](#) in 1962, efforts in response to her effort to raise the alarm, credited with inspiring the modern environmental movement, have paled in comparison to the ongoing human effort to silence Spring.

In fact, we are destroying the biosphere with such ruthless efficiency that the global extinction rate is now 200 species per day, with another million species 'under threat'. Moreover, according to the recent [Global Assessment Report on Biodiversity and Ecosystem Services](#) researched and published by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) – the scientific body which assesses the state of biodiversity and the ecosystem services this provides to society – 'Nature is declining globally at rates unprecedented in human history.'

So severe is the crisis through which we are now living that the normally sober tone of scientific papers is vanishing too, with words such as 'biological annihilation', a 'frightening assault on the foundations of human civilisation' and the 'sixth mass extinction' event in Earth's history are being used with increasing frequency. See, for example, ['Biological annihilation via the ongoing sixth mass extinction signaled by vertebrate population losses and declines'](#).

So how extreme is the threat?



Well, despite the number of elite-controlled

intergovernmental processes and corporate scientists paid to promulgate delusion about our timeframe, an increasing number of scientists are now warning that existing and accumulating evidence indicates that human extinction is likely to occur by 2026 (assuming that we can prevent nuclear war and prevent the deployment of 5G in the meantime). Unfortunately, too, the full extent of this unfolding catastrophe is readily masked if the many interrelated factors – emotional, political, economic, social, climatic, environmental, military, nuclear, geoengineering and electromagnetic – synergistically shaping this outcome are not each and all considered. See [‘Human Extinction by 2026? A Last Ditch Strategy to Fight for Human Survival’](#).

For example, it is poor science to measure climate impacts in isolation from the cascading impacts they generate ‘downstream’ (such as the adverse impact of temperature increases on insect populations in rainforests and what this means for the rainforest habitats they occupy) and to predict outcomes for humanity based on the climate impacts alone. If enough insects are gone – whether through destruction of habitat, extensive pesticide use, 5G electromagnetic radiation, climate impacts... or a combination of these and other factors – before we reach the critical climate ‘tipping point’, then human food chains will collapse rapidly followed by the human population whatever the state of the climate at the time.

However, rather than reiterate the comprehensive evidence in relation to the synergistic threats to human survival here, let me instead present the evidence only in relation to the decimation of the global insect population – variously given such labels as ‘insectageddon’ and ‘insect apocalypse’ in an attempt to convey the gravity of the crisis – including what is driving it and what it means.

The Importance of Insects

So how important are insects? According to one recent study conducted by Caspar A. Hallmann and eleven associates, insects are vital to ecosystem functioning:

‘Insects play a central role in a variety of processes, including pollination, herbivory and detritivory [an organism, such as a bacterium, fungus or insect, that feeds on dead plant or animal matter], nutrient cycling and providing a food source for higher trophic levels such as birds, mammals and amphibians. For example, 80% of wild plants are estimated to depend on insects for pollination, while 60% of birds rely on insects as a food source. The ecosystem services provided by wild insects have been estimated at \$57 billion annually in the USA. Clearly, preserving insect abundance and diversity should constitute a prime conservation priority.’ See [‘More than 75 percent decline over 27 years in total flying insect biomass in protected areas’](#).

To underscore the importance of insects, in their study Bradford C. Lister & Andres Garcia simply note that ‘arthropods comprise over two-thirds of terrestrial species’. See [‘Climate-driven declines in arthropod abundance restructure a rainforest food web’](#). And, as Robert Hunziker observes: without insects ‘burrowing, forming new soil, aerating soil, pollinating food crops...’ and providing food for many bird species, the biosphere simply collapses. See [‘Insect Decimation Upstages Global Warming’](#).

However, despite their crucial role in maintaining the habitable biosphere, insects have been in decline for several decades. And the decline is accelerating.

The Decline of Insects



Any study of insect populations readily confirms their rapid decline. For example, in the recent study by Lister and Garcia, they note that 'Arthropods, invertebrates including insects that have external skeletons, are declining at an alarming rate. While the tropics harbor the majority of arthropod species, little is known about trends in their abundance.' Hence they compared arthropod biomass in Puerto Rico's Luquillo rainforest with data taken by Lister back in 1976. They found that 'biomass had fallen 10 to 60 times' and their analyses revealed 'synchronous declines in the lizards, frogs, and birds that eat arthropods'. Moreover, they noted, over the past 30 years forest temperatures have risen 2.0 °C and their study indicated that 'climate warming is the driving force behind the collapse of the forest's food web'. Ominously, they observe: 'A number of studies indicate that tropical arthropods should be particularly vulnerable to climate warming. If these predictions are realized, climate warming may have a more profound impact on the functioning and diversity of tropical forests than currently anticipated.' See ['Climate-driven declines in arthropod abundance restructure a rainforest food web'](#) and ['Insect collapse: "We are destroying our life support systems"'](#).

Why? Well although climate warming is disrupting the entire biosphere at an accelerating pace, the rate is generally slower in tropical habitats. Nevertheless, the evidence still clearly suggests that tropical ectotherms (organisms reliant on environmental heat sources) may be particularly vulnerable to the warming climate. Citing an earlier report based on research by Daniel H. Janzen – see ['Why Mountain Passes are Higher in the Tropics'](#) – Lister and Garcia note that tropical species that evolved in comparatively aseasonal environments have 'narrower thermal niches, reduced acclimation to temperature fluctuations, and exist at or near their thermal optima. Consequently, even small increments in temperature can precipitate sharp decreases in fitness and abundance. These predictions have been verified in a variety of tropical reptiles, amphibians, and invertebrates.' See ['Climate-driven declines in arthropod abundance restructure a rainforest food web'](#).

In another recent report ['Worldwide decline of the entomofauna: A review of its drivers'](#), Francisco Sánchez-Bayo and Kris A.G. Wyckhuys present 'a comprehensive review of 73 historical reports of insect declines from across the globe, and systematically assess the underlying drivers'. In essence, their research reveals 'dramatic rates of decline' with the main drivers being i) habitat loss and conversion to intensive agriculture and urbanization; ii) pollution, mainly by synthetic pesticides (glyphosate, neonicotinoids and others) and fertilisers; iii) biological factors, including pathogens and introduced species; and iv) the climate catastrophe. 'The latter factor is particularly important in tropical regions, but only affects a minority of species in colder climes and mountain settings of temperate zones.'

Moreover, they note, the general studies of insect declines are 'in line with previous reports on population declines among numerous insect taxa (i.e. butterflies, ground beetles, ladybirds, dragonflies, stoneflies and wild bees) in Europe and North America over the past decades. It appears that insect declines are substantially greater than those observed in birds or plants over the same time periods and this could trigger wide-ranging cascading effects within several of the world's ecosystems.'

But perhaps the most alarming report is the one written following research conducted by Caspar A. Hallmann and his associates. Noting widespread concern about insect loss, they observe that ‘Loss of insect diversity and abundance is expected to provoke cascading effects on food webs and to jeopardize ecosystem services.’ Employing a standardized protocol to measure total insect biomass using Malaise traps, deployed over 27 years in 63 nature protection areas in Germany (with 96 unique location-year combinations) their analysis estimated ‘a seasonal decline of 76%, and mid-summer decline of 82% in flying insect biomass over the 27 years of study’. Moreover, the decline was apparent regardless of habitat type. ‘This yet unrecognized loss of insect biomass must be taken into account in evaluating declines in abundance of species depending on insects as a food source, and ecosystem functioning in the European landscape.’ See [‘More than 75 percent decline over 27 years in total flying insect biomass in protected areas’](#).

Just one cascading impact of the rapid decline of insects in Germany is the ‘decimation’ of the bird population. See [“‘Decimated’’: Germany’s birds disappear as insect abundance plummets 76%’](#).

In summary, from the study by Sánchez-Bayo and Wyckhuys: More than 40 percent of the world’s insect species are on the fast track to extinction. See [‘Worldwide decline of the entomofauna: A review of its drivers’](#).

Why are insects declining?

In essence, apart from the causes of insect decline noted above, such as destruction of habitat, poisoning (using glyphosate, neonicotinoids and other pesticides) – see, for example, [‘Trump EPA OKs “Emergency” to Dump Bee-killing Pesticide on 16 Million Acres’](#) – and the climate catastrophe, insects are also adversely impacted by light – see [‘Light pollution a reason for insect decline’](#) – ingestion of plastic – see [‘Microplastic ingestion by riverine macroinvertebrates’](#) – wars, nuclear contamination – see, for example, [‘Fukushima butterflies highlight heavy cost of nuclear disaster’](#) – and will be further and horrifically impacted, along with all life on Earth, if 5G is deployed. For an earlier study identifying the existing problem of electromagnetic radiation on life, see [‘Bees, Birds and Mankind: Destroying Nature by “Electrosmog”](#)’, but for recent updates on the extraordinary hazards of 5G to all life, see [‘5G and the Wireless Revolution: When Progress Becomes a Death Sentence’](#) and [‘Western Insanity and 5G Electromagnetic Radiation’](#).

In essence, without sufficient diversity and density of insects the existing biosphere will collapse and homo sapiens will join the fossil record. And we are rapidly approaching that particular tipping point.

Part of the problem is that far too much attention is being directed at the climate catastrophe while ignoring the vast evidence from other disciplines offering highly instructive research not only in relation to climate impacts but to other human behaviours that are negatively impacting ecosystem functioning.

This has a range of negative impacts, including that it deludes people into seeking outcomes that are hopelessly inadequate if we are to address the full extent of the crisis in our biosphere.

Has anything being done?

Not much. The elite's corporations have enormous political power so have little trouble resisting efforts to contain their destruction of the biosphere, including of insect populations.

Hence, while scientists routinely offer fine suggestions, such as the following one, they are also routinely ignored.

'A rethinking of current agricultural practices, in particular a serious reduction in pesticide usage and its substitution with more sustainable, ecologically-based practices, is urgently needed to slow or reverse current trends, allow the recovery of declining insect populations and safeguard the vital ecosystem services they provide. In addition, effective remediation technologies should be applied to clean polluted waters in both agricultural and urban environments.' See ['Worldwide decline of the entomofauna: A review of its drivers'](#).

But, to reiterate, it is corporations that have political power and that also control the media narrative; not scientists.

So what can we do?

Given that the insect apocalypse is deeply connected to other issues of critical importance to human survival, as always it is vital that this issue is addressed strategically from a holistic perspective. For that reason, we must approach the issue by addressing fundamental drivers but also several vital symptoms that arise from those drivers. Let me explain what I mean.

The fundamental question is this: Why are humans behaving in a way that destroys Earth's biosphere? Surely, this is neither sensible nor even sane. And anyone capable of emotional engagement and rational thinking who seriously considers this behaviour must realize this. So why is it happening?

Fundamentally it is because our parenting and education models fail utterly to produce people of conscience, people who are emotionally functional and capable of critical analysis, people who care and who can plan and respond strategically.

Given the preoccupation of modern society with producing submissively obedient students, workers, soldiers, citizens (that is, taxpayers and voters) and consumers, the last thing society wants is powerful individuals who are each capable of searching their conscience, feeling their emotional response to events, thinking critically and behaving strategically in response. Hence our parenting and education models use a ruthless combination of visible, 'invisible' and 'utterly invisible' violence to ensure that our children become terrified, self-hating and powerless individuals like virtually all of the adults around them.

This multifaceted violence ensures that the adult who emerges from childhood and adolescence is suppressing awareness of an enormous amount of fear, pain and anger (among many other feelings) and must live in delusion to remain unaware of these suppressed feelings. This ensures that, as part of their delusion, people develop a strong sense that what they are doing already is functional and working (no matter how dysfunctional and ineffective it may actually be) while unconsciously suppressing awareness of any evidence that contradicts their delusion. See ['Why Violence?'](#), ['Fearless Psychology and Fearful Psychology: Principles and Practice'](#), ['Do We Want School or Education?'](#) and ['Love Denied: The Psychology of Materialism, Violence and War'](#).

So if we are going to address the fundamental driver of both the insect apocalypse and destruction of the biosphere generally, we must address this cause. For those adults powerful enough to do this, there is an explanation in [‘Putting Feelings First’](#). And for those adults committed to facilitating children’s efforts to realize their potential and become self-aware (rather than delusional), see [‘My Promise to Children’](#).

Beyond this cause, however, we must also resist, strategically, the insane elite corporations that are a key symptom of this crisis by manufacturing and marketing a vast range of insect (and life)-destroying products ranging from weapons (conventional and nuclear) and fossil fuels to products made by the destruction of habitat (including rainforests) and the poisoning of agricultural land (to grow the food that most people eat) while now planning the imminent worldwide deployment of 5G. See [Nonviolent Campaign Strategy](#).

But we can also undermine this destruction, for example, by refusing to buy the products provided by the elite’s corporations (with the complicity of governments) that fight wars (to enrich weapons corporations) to steal fossil fuels (to enrich energy, aircraft and vehicle-manufacturing corporations) or those corporations that make profits by destroying rainforests or producing poisoned food, for example. We can do this by systematically reducing and altering our consumption pattern and becoming more locally self-reliant as outlined in [‘The Flame Tree Project to Save Life on Earth’](#) or, even more simply, by committing to The Earth Pledge (below). In a nutshell, for example, if we do not buy and eat poisoned food, corporations will stop poisoning our food and this will save vast numbers of insects (and many other life forms besides).

You can also consider joining those working to end violence in all contexts by signing the online pledge of [‘The People’s Charter to Create a Nonviolent World’](#).

The Earth Pledge

Out of love for the Earth and all of its creatures, and my respect for their needs, from this day onwards I pledge that:

1. *I will listen deeply to children(see explanation above)*
2. *I will not travel by plane*
3. *I will not travel by car*
4. *I will not eat meat and fish*
5. *I will only eat organically/biodynamically grown food*
6. *I will minimize the amount of fresh water I use, including by minimizing my ownership and use of electronic devices*
7. *I will not buy rainforest timber*
8. *I will not buy or use single-use plastic, such as bags, bottles, containers, cups and straws*
9. *I will not use banks, superannuation (pension) funds or insurance companies that provide any service to corporations involved in fossil fuels, nuclear power and/or weapons*
10. *I will not accept employment from, or invest in, any organization that supports or participates in the exploitation of fellow human beings or profits from killing and/or destruction of the biosphere*
11. *I will not get news from the corporate media (mainstream newspapers, television, radio, Google, Facebook, Twitter...)*
12. *I will make the effort to learn a skill, such as food gardening or sewing, that*

makes me more self-reliant

13. *I will gently encourage my family and friends to consider signing this pledge.*

Conclusion

In response to a range of synergistically impacting behaviours, homo sapiens is on the fast track to extinction. Just one critical and largely ignored variable in this rush to extinction is our decimation of the world insect population denying us an ever-expanding range of ecological services.

On this count alone, we have already crossed a dangerous tipping point that will cause increasing problems over time. Whether we can stop short of the ultimate tipping point depends on what you decide.

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