

We Are Destroying Our Life Support System



Water vapor and smoke rise from the chimneys and cooling towers of the Laziska coal-fired power station, as a snowman melts on a hill in the foreground in Laziska Gorne near Katowice, Poland, on December 12, 2018. Monika Skolimowska / picture alliance via Getty Images

By Dahr Jamail, Truthout Published January 28, 2019

The warming of planet Earth continues apace, and the ramifications become ever more stunning with each passing month. While no single meteorological event or phenomenon can be attributed solely to human-caused climate disruption, this is now nearly always the leading cause of the event, or at the very least a major contributing factor.

Recent data from the World Meteorological office showed that 2018 was the <u>fourth warmest on record</u>, making the last four years the <u>hottest four years</u> in Earth's recorded history.

On that note, it is worth remembering that the single worst mass extinction event in Earth's history, the "Great Dying" that happened 252 million years ago

and took out as much as 96 percent of all marine species and two-thirds of terrestrial life, occurred <u>due</u> to rapid planetary warming.

Another feedback loop has been discovered in the Arctic, this time in Greenland, where it was recently reported that melting glaciers are yet <u>another source</u> of methane.

It was also <u>recently revealed</u> that Greenland saw an "unprecedented" loss of ice over the last two decades. Another study by a <u>US research team</u> had shown that the decade of 2004-13 experienced more sustained and intense melting there than during any other 10-year period in the 350-year record. This means that Greenland is contributing <u>more to sea level rise</u> than



previously understood, adding more than at any other time that record keeping has existed. Melt water runoff there has increased <u>50 percent</u> since the industrial revolution began.

Also recently, and even more shocking, ice loss from the Antarctic has sextupled since just the 1970's, according to another study. This means ice loss has accelerated 480 percent in the last four decades. The study underscored how the gigantic East Antarctic ice sheet is already a giant contributor to sea level rise. This is alarming, given that this region was previously expected to be the last area that would succumb to melting. Eric Rignot from the University of California, Irvine, the lead author of the study, told CNN, "Antarctica is melting away."

Dear readers, take a deep breath, and keep reading. We must be aware of the reality of this crisis, if we are to behave accordingly.

Earth

A scientist returning to the Puerto Rican rainforest recently found that 98 percent of all the ground insects had disappeared since he was there 35 years ago. The scientist, Brad Lister, told The Guardian: "We are essentially destroying the very life support systems that allow us to sustain our existence on the planet, along with all the other life on the planet. It is just horrifying to watch us decimate the natural world like this."

His findings come on the heels of other disturbing studies that have revealed crashing insect populations in other places around the world. Lister <u>has warned</u> of an "ecological Armageddon" from these crashes.

Meanwhile, increasing temperatures alone are already threatening to decimate US crop yields. Farmer's livelihoods are at risk as warmer temperatures, drought and floods combine to disrupt agricultural productivity. In addition to farmers struggling to make a living, food prices will, of course, escalate.

Another climate change impact with obvious consequences for humans is increasing heat waves. A study published late last year showed that more people globally are vulnerable to heat exposure, which means they will be at greater risk of heat stress, heart and kidney disease, and other heat-related issues that can kill. The study estimated that between 2030-

50, climate change could also kill an additional quarter million people each year "due to malnutrition, diarrhea, malaria and heat stress."

Another <u>study</u> showed that almost one-third of all of the bird species in Wales are now "declining significantly," with some already having disappeared entirely.

A <u>recent report</u> about the state of the Arctic showed that the number of Arctic reindeer has crashed by 58 percent in the last two decades alone, largely due to climate change.

Two scientists warned recently that the planet's extinction toll may be far worse than previously understood. Climate change, overpopulation of humans, exploitation of resources and habitat destruction are combining to cause cascades of extinctions. The scientists warned that today's rates, which are already 1,000 times the normal background extinction rate, could be a staggering 10 times worse.

In the US, another wave of US citizens have become climate change refugees. In the wake of Hurricane Florence in North Carolina last fall, many people of the New Bern community in the eastern part of the state have had their homes and lives destroyed. Already a largely old, poor and disabled community, these people cannot afford to stay where they are, and those who try to stay are beset with the psychological tolls and environmental toxins that are ravaging the area.

Even the corporate media are <u>now reporting</u> on "climate grief" — what happens to us when the experiences of extreme weather events and dire climate reports, such as this one, continue to intensify. Alongside them, the mental health impacts of depression and resignation about a grim future on the planet are striking more people than ever before. Even just last year, the American Psychological Association published a <u>report</u> on this subject, openly discussing trauma from living through extreme weather events, but also noting how "gradual, long-term changes in climate can also surface a number of different emotions, including fear, anger, feelings of powerlessness, or exhaustion."

Water

In addition to the aforementioned dramatic news of the melting ice sheets and glaciers of Greenland and



Antarctica, <u>another study</u> has revealed that glaciers in the Arctic are melting so dramatically they are pouring 14,000 tons of water every second into the ocean.

This means they are contributing more to sea level rise than even current melting in Antarctica, and that the Arctic region has thus contributed nearly one full inch to sea levels since just 1971.

The National Oceanic and Atmospheric Administration's 2018 Arctic Report Card survey showed that sea ice had reached its second-lowest extent ever recorded as the Arctic experienced its second-warmest year on record. The report warns that this leaves the wildlife and communities across that region under great pressure as climate and ecosystems are undergoing dramatic changes.

Meanwhile, the melting of ice around the world continues apace.

In the Himalayas, a photo essay by the <u>Nepali Times</u> shows and describes the dramatic changes there, where the world's highest glaciers are melting and receding at a shocking pace.

In Canada, a <u>recent report warned</u> that a stunning 80 percent of mountain glaciers in Alberta, British Columbia, and the Yukon will disappear within just 50 years from now.

Meanwhile, in the realm of the privileged, Miami's affluent, many of whom are referring to themselves as "climate refugees," are also abandoning their high-dollar oceanfront residences and moving to higher ground because of impending sea level rise. This is causing gentrification and suffering of the less privileged who happen to already be living in the areas where the rich are moving and driving up the costs of living for everyone.

Last November, the extremely well researched and comprehensive National Climate Assessment warned that, among many other things, increasingly warmer temperatures across the US threaten national water security. The report warned of physical alterations in the nation's water supplies, including rising seas driving saltwater further inland underground, which threatens major water sources for cities such as Miami. Mountainous regions are seeing more precipitation falling as rain rather than snow, endangering water supplies that rely heavily on

snowpack. Meanwhile, in lakes, rivers and estuaries, warmer temperatures mean an increase in algal blooms like those which occurred in Florida last summer and fall, causing massive fish kills and disruption to life and tourism.

Before the heat wave that is now scorching Australia, <u>flash flooding</u> in Sydney caused chaos and two deaths when the heaviest November rainfall in decades struck the city.

Also on the sea level rise front, Venice made the news again recently with a tax on day tourists in hopes of raising money to address the crisis, while local residents and businesses deal with the chaos of a <u>city struggling to survive</u> against sea rise and constant flooding.

On the other end of the water spectrum, a <u>recent study</u> showed that "anthropogenic climate forcing has doubled the joint probability of years that are both warm and dry in the same location" since 1931, posing a very serious threat to agriculture on a planetary scale. The study also found that the frequency of simultaneous hot/dry conditions will keep increasing, and will reach about 20 percent over the next 30 years without dramatic reductions of fossil fuel emissions.

Farmers in the US Midwest are already <u>sounding the alarm</u> about the "radical" changes they describe as far as the dramatic impacts of drought and higher temperatures on their farms. They are already spending more money and time than ever in trying to figure out how to grow crops amidst ever-changing harsher conditions.

Worryingly, several studies already exist that show the dramatic decline in nutrients of food due primarily to increasingly warm temperatures, some by as much as up to 30 percent.

Meanwhile, the oceans continue to warm apace.

Off the coast of Northwestern Alaska, the cod population is now at the <u>lowest level</u> it has ever been, and state officials have declared disasters after multiple salmon fisheries have failed. Meanwhile, further to the north, salmon runs are <u>dramatically increasing</u> due to warmer temperatures, reflecting the disruptive, chaotic and unpredictable nature of our warming planet.



On that note, oceans are continuing to heat far faster than previously expected, and 2018 set <u>yet another</u> heat record for the warming oceans, a trend which further threatens marine life.

Fire

The Guardian recently reported how several studies have shown how the US is woefully prepared for extreme weather events to come, including the dramatic increase of wildfires that have been predicted as climate disruption continues to advance. Last year, the wildfires in California alone destroyed thousands of structures and left 85 people dead.

Meanwhile, in January, <u>wildfires scorched</u> many parts of Australia, as large swaths of that country continued to bake under record-breaking high temperatures.

Air

Temperature records around the world continue to soar, as do projections. In the UK, a <u>recent report by the Met Office</u> warned that summers there could be more than 5 degrees Celsius (5°C) warmer by 2070.

Very disturbing news came from a Japanese satellite that has spotted signs of methane gas bubbling up from beneath lakes that are forming in the tundra as Arctic permafrost continues to thaw. It is important to remember that methane is a far, far more potent greenhouse gas than CO2.

Another troubling bit of news on this topic came in the form of a <u>study</u> indicating that the upper reaches of the Himalayas, the highest mountain range on Earth, are already likely to be warmer than previously understood.

Denial and Reality

The Trump administration's climate change denialism has, as usual, been off the charts since the last dispatch.

Their response to the National Climate Assessment, an intensely comprehensive study detailing the impacts of climate change across the US, including impacts that will cost the US hundreds of billions, if not trillions of dollars of damage in the coming decades, was to dismiss the findings of the federal report.

Then, in the wake of that move and unable to bury its own National Climate Assessment, since it was a government generated report, the Trump administration and its denialist colleagues launched a full-scale assault against the science in the report.

After releasing the report on Black Friday afternoon in an attempt to bury it, Trump <u>simply said</u> of the catastrophic findings, "I don't believe it." Following that, EPA Acting Administrator Andrew Wheeler and then-head of the Department of Interior Ryan Zinke, carried forward the assault on the report, along with other climate change denialists, <u>calling the report</u> "alarmist" and extreme.

Furthermore, Wheeler went on to say that the Trump administration may even <u>intervene</u> in the next climate study.

Meanwhile, back in reality, a <u>poll</u> released in late November showed that nearly two-thirds of Republicans and the majority of all Americans acknowledge that climate change is real. I understand that reporting this is akin to congratulating people for acknowledging the reality of gravity, but it has, indeed, come to this in the United States.

Another poll also showed that seven in 10 Americans believe climate change is happening, a 10-point increase over four years ago.

This is good, as the impacts of climate change are only going to intensify, and then some, given the International Energy Agency's recent announcement that carbon dioxide emissions from the world's richer countries were set to increase through the end of 2018, a trend that broke a five-year decline.

More bad news came from another report in early December 2018 which showed that global carbon emissions, not just in richer countries, were on track to jump to an all-time high through 2018, increasing by 2.7 percent.

Meanwhile, at the time of this writing, atmospheric CO2 had already set three daily records for January, with an all-time high of 413.86 parts per million (ppm) on January 22.

The year 2018 saw three daily records set for the entire year, 2017 and 2016 saw two daily records each, and 2015 saw one.



Writing these climate dispatches has become increasingly difficult over the last five years. Each new report of the melting of glaciers and ice fields that is accelerating yet again, each new source of methane that is now speeding the warming of the already overburdened atmosphere, each new bird species listed as "declining significantly," each new atmospheric CO2 level reached, and every round of temperature records across the planet leads to yet more grief, anguish, rage, anxiety, sadness — and finally, acceptance.

Yet, doing this research and collating it into this report each month is akin to watching, very closely, the slow-motion death of someone I love dearly.

At the same time, this work has brought some of the most magnificent people I've ever known into my life. Hence, the tragic drama of this Great New Era of Loss we have entered with Earth would not be complete without, of course, love.

One of these people in my life is author, teacher, healer and elder of Cherokee descent, Stan Rushworth. His writing and wisdom touched me so deeply at the exact moment in my life when I needed it more than I even knew. His presence in my life enabled me to conclude my recently published book properly.

Stan and I talk pretty regularly. He wrote me shortly after finishing my book, before it was published, as I had asked for his feedback.

Like me, Stan is burdened by the gravity of loss upon us now, and by us, I mean the big Us ... all life on Earth. But here is what he wrote me, in part, as a response to this seemingly bottomless and unfathomable loss (Stan doesn't use capital letters):

i read the other day that elephants are now being born without developing tusks, in areas where poachers have been killing them for the ivory, years ago in northern california, i heard a story about a place where lots of rattlesnakes lived, and the people there went on a series of extermination hunts, killing all they could find. the next generation of rattlers there carried no rattles, a quick adaptation to madness made by nature, by snake. it makes me wonder if earth has something in mind for her survival, or if human aberration has the power to change even nature's mind. so many creatures and beings are now dying needlessly, that i wonder what's going through her. i looked at big seas rolling in today, a storm coming, and though the surface was smooth and glassy, the waves huge, the roar was strong and carried far inland. i can open the door and listen from here.

why so many people have chosen to forget so much is completely beyond me.

with love and thanks.

stan

Stan reminds me to see the beauty and the mystery, even in the loss. And in so doing, to also remember to go touch the Earth, in homage and respect, while so much continues to live today.

It is clear that runaway climate disruption is upon us, and I wonder if humans' ability to adapt to this increasingly harsh new world will be as dramatic as that of the <u>elephants</u> and the <u>rattlesnakes</u> when faced with their annihilation.

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