The Week That Was: 2020-04-26 (April 25, 2020)
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The Science and Environmental Policy Project

Quote of the Week: “So, first of all, let me assert my firm belief that the only thing we have to fear is...fear itself — nameless, unreasoning, unjustified terror which paralyzes needed efforts to convert retreat into advance.” – Franklin Delano Roosevelt – First Inaugural Address (March 4, 1933)

Number of the Week: 3, 4, & 5

**THIS WEEK:**
By Ken Haapala, President, Science and Environmental Policy Project (SEPP)

**Politics Not Science:** The Competitive Enterprise Institute (CEI) published a report by Patrick Michaels and Kevin Dayaratna discussing the critical thinking, or lack thereof, that went into the 2009 EPA finding that carbon dioxide and other greenhouse gases endanger public health and welfare – the Endangerment Finding. The finding is largely based on the first and second US national climate assessments produced by what is now called the U.S. Global Change Research Program (USGCRP). According to its web site, the legal mandate of the USGCRP is:

“USGCRP was established by Presidential Initiative in 1989 and mandated by Congress in the Global Change Research Act (GCRA) of 1990 to develop and coordinate ‘a comprehensive and integrated United States research program which will assist the Nation and the world to understand, assess, predict, and respond to human-induced and natural processes of global change.’” [Boldface added]

The USGCRP has largely ignored the natural processes of global change and assigned virtually all change as human induced. This action is questionable, because geologic history shows that the climate has changed even before humanity existed. Further, the USGCRP largely ignores over thirty years of satellite observations showing the earth is greening – the environment is becoming more robust.

The executive summary of the report by Michaels and Dayaratna gives an excellent review of the failings of USGCRP and its reports. In part, it states:

“The extant Assessments [by USGCRP] at the time of the Endangerment Finding suffered from serious flaws. We document that using the climate models for the first Assessment, from 2000, provided less quantitative guidance than tables of random numbers—and that the chief scientist for that work knew of this problem.

“All prospective climate impacts in the Endangerment Finding are generated by computer models that, with one exception, made systematic and dramatic errors over the climatically critical tropics. Best scientific practice would be to emphasize the working model, which has less warming in it than all of the others. Instead, the EPA relied upon a community of wrong models.
“New research compares what has been observed to what is forecast and finds that warming in this century will be modest—near the lowest extreme of the prospective range given by the United Nations. The previous administration justified its policy choices by calculating the Social Cost of Carbon [dioxide]. We interfaced their model with climate forecasts consistent with the observed history and enhanced the “fertilization” effect of increasing atmospheric concentrations of CO2. We find that making the warming and the vegetation response more consistent with real-world observations yields a negative cost under almost all modeled circumstances.

“This constellation of unreliable models, poor scientific practice, and exaggerated estimates of the Social Cost of Carbon argue consistently and cogently for the EPA to reopen and then vacate its endangerment finding from carbon dioxide and other greenhouse gases.”

In short, using models that are consistent with the physical evidence, Michaels and Dayaratna find that any warming caused by CO2 will be modest and adding CO2 to the atmosphere is a net benefit. The Endangerment Finding is a product of groupthink, or herd behavior. See links under Challenging the Orthodoxy and https://www.globalchange.gov/about.

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**Major Source of CO2 Emissions?** Writing in ICECAP, Joe Bastardi of WeatherBELL Analytics brings up a vexing issue. What percentage of the increase in atmospheric CO2 is from human emissions and what percentage is from outgassing from warming oceans? As of now, the lockdowns of economies around the world have not resulted in a slowdown in CO2 concentrations at Mauna Loa observatory. Yet, as discussed in last week’s TWTW, satellite measurements show a slowdown of nitrogen dioxide (NO2), ground-level ozone, carbon monoxide, particulate matter (microscopic specks of solid or liquid material in the air) and sulfur dioxide. For example, photos of China before and during the lockdown show great reductions in NO2.

There is no doubt that oceans are the largest reservoir of CO2. Antarctic ice core borings show that ice ages begin during periods of relatively high CO2 concentrations, which fail to keep the earth warm, followed with CO2 falling centuries later as cooling oceans absorb more CO2. Warming periods ending ice ages begin during periods of low CO2 concentrations, with CO2 rising as warming oceans release more CO2. These support the Milankovitch cycles for changing climate. [Al Gore’s version has no explanation for varying CO2 concentrations.]

The large, annual variation of measured CO2 concentrations at Mauna Loa may cloud the source of the long-term CO2 trends. Bastardi asserts that oceans have not come to equilibrium from the little Ice Age and may be the major source of increasing CO2. If so, this will throw climate modeling further from reality and dispense with the foolish notion humans can stop climate change by stopping CO2 emissions. See links under Challenging the Orthodoxy.

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**Hockey-Stick Sea Levels:** One of the outrageous tricks uncovered in Climategate was the practice of eliminating data that was inconsistent with the main issue IPCC and others were trying to make. As Richard Feynman said when discussing scientific integrity, it was the responsibility of a scientist to present all the data available, whether or not it agreed with the point being made.

Unfortunately, sections of NOAA have demonstrated they lack the integrity of responsible scientists. Repeatedly, NOAA has produced studies splicing a second set of data onto the first set of data and clipping the first set at that point of splice, giving the illusion of an inflection point, a change. For example, NOAA sea level reports often splice sea level estimates from satellites onto
sea level estimates from tidal gauges, and remove the data showing that tidal gauge measurements have continued but show a lower rate of sea level rise than the NOAA report indicates.

Retired NASA meteorologist Thomas Wysmuller is preparing a paper on sea level rise. He referenced a study of a century of measurements taken in Newlyn, Southwest England, which is geodetically quite stable. Newlyn is in Cornwall, which experiences significant daily tidal change. For example, the range from high to low tide for Penzance (Newlyn) on April 26 is estimated to be 4.1 meters (13.5 feet), for St Ives Harbour, 4.8 meters (15.7 feet). Visitors can see fishing boats in the St Ives Harbour floating on the water, then few hours later see them lying on the wet sand, with no water in the harbor.

The Newlyn study scrupulously discusses how different instruments and different time frames give totally different trends. Figure 8 shows these trends and the text states:

“The record of monthly MSL [Mean Sea Level] at Newlyn during the past century. The average rates of change of MSL for the complete record and for the recent period 1993–2014 are 1.8 [tidal gauge] and 3.8 mm/year [satellites] respectively and are shown by the black lines.

“However, the observed rate of sea level change at Newlyn over 1993–2014 has been much larger at 3.8 mm/year (we use 1993 somewhat arbitrarily for the start of the modern era in sea level monitoring as that was when precise altimeter information from space became available). This highest rate in the record may represent the start of a long-term acceleration in sea level due to climate change (Church et al. 2014), or simply be a feature of the decadal variability in MSL that has been evident throughout the Newlyn record (and indeed in all tide gauge records). Figure 8 shows that high rates were observed in previous 22-year periods, including those centered on approximately 1926, 1950, and 1980 (with rates of approximately 3 mm/year), with the lowest rates centered on 1934 and 1968 (approximately 0 mm/year), with such accelerations and decelerations in the record similar to those seen in other parts of the world (Woodworth et al. 2009b). The variability and long-term trend in the Newlyn MSL record are similar to those at Brest (Wöppelmann et al. 2006), although some differences become apparent in a detailed comparison (Douglas 2008), and at other stations in the North Sea area (Wahl et al. 2013)”

It is unfortunate that NOAA does not demonstrate such scientific integrity. TWTW looks forward to Wysmuller finishing his paper, which, no doubt, will be controversial for alarmists. See links under Challenging the Orthodoxy and https://www.cornwalls.co.uk/weather/tide_times.htm.

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An Alarming Flick: Filmmaker Michael Moore has won awards for films opposing fossil fuels, gun ownership, globalization, and other political issues. Now he has produced a film, “Planet of the Humans,” exposing industrial wind farms, solar farms, etc. It appears that proponents of these sources of electricity generation, mislabeled as clean or green energy, and proponents of the Green New Deal are not pleased. See links under Questioning the Orthodoxy, Communicating Better to the Public – Go Personal, Communicating Better to the Public – Use Propaganda, and Alternative, Green (“Clean”) Solar and Wind.

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A Different View: Julian Simon became famous for demonstrating that predictions of increased scarcity, starvation, and environmental destruction were great exaggerations. His books, “The Ultimate Resource” and “The Ultimate Resource 2”, challenged conventional beliefs. Simon argued that the ultimate resource is the human imagination coupled to the human spirit. The creation of new ideas and knowledge can overcome whatever short-term obstacles may arise.
On her blog, Jennifer Marohasy brings up another book with a similar theme with a somewhat different view:

“... ‘The Future and Its Enemies’ written by Virgina Postrel and published in 1999 puts more context around the notion of innovation. Interestingly Postrel explains why government regulation may only be a problem when it limits innovation. Further, Postrel suggests notions of ‘left’ and ‘right’ in politics are somewhat meaningless. She suggests the more significant battles will be between the values of a type of person she refers to as the ‘dynamists’ versus the ‘statists. Quoting from an interview some time ago:

“‘In the book, I talk about the sort of core values of dynamists versus statists. The core values of dynamists are – it’s really about learning. It’s about discovery. The idea is we don’t really know the best way of doing whatever, and that requires a lot of experimentation, trial and error learning, competition, criticism. It’s a messy process, but it’s the process through which we discover better ways of doing things, whether that’s in business, technology, or the way we live our everyday lives.

“‘On the stasis side, there’s sort of two competing or two complementary ideas rather. One is the ideal of stability – that the good society is the society that doesn’t change. And the other, which I associate with sort of technocratic stasis, is the idea of control – that someone needs to be in charge to set us on the right path and to decide centrally what that will be.’”

See links under Challenging the Orthodoxy.

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Irresponsible Government: On April 1, the Governor of Virginia, Democrat Ralph Northam, locked down the state until June 10, one day after the Republican primary. It may be pure coincidence. What is not coincidence is that on April 12, the governor signed the Virginia version of the Green New Deal. According to the governor’s web site, the legislation accomplishes the following broad goals:

“Establishes renewable portfolio standards. The Act requires Dominion Energy Virginia to be 100 percent carbon-free by 2045 and Appalachian Power to be 100 percent carbon-free by 2050. It requires nearly all coal-fired plants to close by the end of 2024.

“Establishes energy efficiency standards. The Act declares energy efficiency pilot programs to be ‘in the public interest.’ It creates a new program to reduce the energy burden for low-income customers, and it requires the Department of Social Services and the Department of Housing and Community Development to convene stakeholders to develop recommendations to implement this program. The Act sets an energy efficiency resource standard, requiring third party review of whether energy companies meet savings goals.

“Advances offshore wind. The Act provides that 5,200 megawatts of offshore wind generation is ‘in the public interest.’ It requires Dominion Energy Virginia to prioritize hiring local workers from historically disadvantaged communities, to work with the Commonwealth to advance apprenticeship and job training, and to include an environmental and fisheries mitigation plan.

“Advances solar and distributed generation. The Act establishes that 16,100 megawatts of solar and onshore wind is ‘in the public interest.’ The law expands ‘net metering,’ making it easier for
rooftop solar to advance across Virginia. The new law requires Virginia’s largest energy companies to construct or acquire more than 3,100 megawatts of energy storage capacity.”

There is no major economy with 100 percent carbon-free electricity generation. El Hierro in the Canary Islands and King Island, off Tasmania, tried wind power with pumped hydro storage, the only storage system that has succeeded commercially. They failed because wind fails for long periods of time, and thus requires extremely large reservoirs for water storage. (Discussed in previous TWTWs.)

The politicians in Virginia dream of far-offshore wind, 25 miles off the coast. According to Table 1b “Estimated levelized cost of electricity (LCOE, unweighted) for new generation resources entering service in 2025 (2019 dollars per megawatthour)” in the February 2020 EIA “Levelized Cost and Levelized Avoided Cost of New Generation Resources in the Annual Energy Outlook 2020” report, the estimated capacity factor for offshore wind is 44% with an estimated total system LCOE of $122.25 (2019 dollars per megawatthour). These estimates do not include the costs of installing and maintaining electrical lines in 25 miles in sea water.

By contrast, the EIA estimates the combined cycle natural gas, now banned in Virginia, has a capacity factor of 87% with an estimated Total system LCOE of $38.07/MWh. Doing rough calculations (not considering the very erratic nature of wind power) it would take two offshore wind plants costing $245/MWh to generate the same real capacity of one combined cycle plant costing $38/MWh. The offshore wind costs more than six times as much. This is not to mention that occasionally a hurricane or a nor’easter goes up the Atlantic seaboard. No wonder the ideologically driven legislators and governor removed the State Corporation Commission from the responsibility of evaluating the fiscal soundness of new sources of power.

Part of the justification for the Governor’s economic lockdown of Virginia is to prevent overburdening medical facilities. Amazingly, Governor Ralph Northam is a pediatric neurologist and was an officer in the U.S. Army Medical Corps from 1984 to 1992. One would think that a Medical Corps physician would understand that Army field hospitals, emergency rooms, intensive care units, indeed, all modern medical facilities need reliable electricity to function properly. Using wind and solar generation without fossil fuel backup will result in extremely poor survival rates for those needing emergency or intensive care. Apparently, the government of Virginia is so infatuated with its Green New Deal, they cannot realize their lack of critical thinking and demonstrate a herd mentality.

In a way, this is similar to the lack of recognition of what is happening when the Plains Indians drove herds of buffalo over cliffs to their slaughter. There are a number of sites in North America. The interpretive center and museum of Head-Smashed-In Buffalo Jump in Alberta gives an excellent description of the process. See Energy Issues – US, https://www.governor.virginia.gov/newsroom/all-releases/2020/april/headline-856056-en.html, and https://www.eia.gov/outlooks/aeo/pdf/electricity_generation.pdf

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Air Toxins: Consistent with the concepts of a herd mentality, Food and Water Watch and other groups petitioned the EPA to declare CO2 is an air toxin under Hazardous Air Pollutants (HAP). Should the government ban all such “toxins” from entering our food supply? Including carbon?

The Center for the Study of Carbon Dioxide and Global Change has petitioned the EPA to dismiss the previous petition by Food and Water Watch, et al. According to its IRS 990 filings the Food
and Water Watch is a Washington DC based $17 million a year operation. Has it ever heard of photosynthesis for which CO2 is necessary? The second petition states:

“EPA formally refers to HAPs as Air Toxics, so we have the proposition that an agency of the United States is being asked by the environmental community to find that CO2, a benign gas required for all life on earth, is in fact an Air Toxic to be eliminated under the laws of the United States.”

See links under Litigation Issues

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Errors and Corrections: TWTW discovered an error in the listing of those awarded the coveted lump of coal, The Jackson. After checking the actual voting, and past announcements, it was determined that John Holdren was actually a runner-up to the winner of the 2016 award, Michael Mann and Gena McCarthy did not win later, as erroneously reported. We regret any inconvenience this may cause.

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SEPP’S APRIL FOOLS AWARD
THE JACKSON

Since 2012, SEPP conducted an annual vote for the recipient of the coveted trophy, The Jackson, a lump of coal. Readers are asked to nominate and vote for who they think is most deserving, following these criteria:

- The nominee has advanced, or proposes to advance, significant expansion of governmental power, regulation, or control over the public or significant sections of the general economy.
- The nominee does so by declaring such measures are necessary to protect public health, welfare, or the environment.
- The nominee declares that physical science supports such measures.
- The physical science supporting the measures is flimsy at best, and possibly non-existent.

The eight past recipients, Lisa Jackson (12), Barrack Obama (13), John Kerry (14), Ernest Moniz (15), Michael Mann (16), Christiana Figueres (17), Jerry Brown (18), and AOC (19) are not eligible. Generally, the committee that makes the selection prefers a candidate with a national or international presence. The voting will close on June 30. Please send your nominee and a brief reason why the person is qualified for the honor to Ken@SEPP.org. Thank you.

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Number of the Week: 3, 4, & 5. According to the web site, worldometers, for midnight GMT on April 25, the world-wide deaths per million for COVID-19 stood at 35.4.

For USA it was 158, for Spain 482, for Italy 430, for France 341, for Belgium 597, Netherlands, 257, UK 287, Sweden 213, Switzerland, 184.

At the same time, the counts for China was 3, Cuba 4, and Russia 5.

The propagandist could say these numbers demonstrate the superiority of the health care in authoritarian countries. The skeptic could say these numbers demonstrate the superiority of suppressing adverse information in authoritarian countries.
By contrast, the number for Haiti, the Western Hemisphere’s most economically depressed country was 0.5; the number for Venezuela, with a collapsing economy well before COVID-19, was 0.4; and the number for Syria with years of brutal civil war was 0.2. Perhaps these numbers do not reflect the quality of health care. See https://www.worldometers.info/coronavirus/#countries but the numbers change daily.

**NEWS YOU CAN USE:**

**Challenging the Orthodoxy -- NIPCC**

*Climate Change Reconsidered II: Physical Science*
Idso, Carter, and Singer, Lead Authors/Editors, Nongovernmental International Panel on Climate Change (NIPCC), 2013
[https://www.heartland.org/media-library/pdfs/CCR-II/CCR-II-Full.pdf](https://www.heartland.org/media-library/pdfs/CCR-II/CCR-II-Full.pdf)
*Summary:* [https://www.heartland.org/_template-assets/documents/CCR/CCR-II/Summary-for-Policymakers.pdf](https://www.heartland.org/_template-assets/documents/CCR/CCR-II/Summary-for-Policymakers.pdf)

*Climate Change Reconsidered II: Biological Impacts*
Idso, Idso, Carter, and Singer, Lead Authors/Editors, Nongovernmental International Panel on Climate Change (NIPCC), 2014
*Summary:* [https://www.heartland.org/media-library/pdfs/CCR-IIb/Summary-for-Policymakers.pdf](https://www.heartland.org/media-library/pdfs/CCR-IIb/Summary-for-Policymakers.pdf)

*Climate Change Reconsidered II: Fossil Fuels*
By Multiple Authors, Bezdek, Idso, Legates, and Singer eds., Nongovernmental International Panel on Climate Change, April 2019
[http://store.heartland.org/shop/CCR-II-Fossil-Fuels/](http://store.heartland.org/shop/CCR-II-Fossil-Fuels/)
Download with no charge:

*Why Scientists Disagree About Global Warming*
The NIPCC Report on the Scientific Consensus
By Craig D. Idso, Robert M. Carter, and S. Fred Singer, Nongovernmental International Panel on Climate Change (NIPCC), Nov 23, 2015
Download with no charge:

*Nature, Not Human Activity, Rules the Climate*
S. Fred Singer, Editor, NIPCC, 2008

*Global Sea-Level Rise: An Evaluation of the Data*
By Craig D. Idso, David Legates, and S. Fred Singer, Heartland Policy Brief, May 20, 2019
[https://www.heartland.org/_template-assets/documents/publications/SeaLevelRiseCCRII.pdf](https://www.heartland.org/_template-assets/documents/publications/SeaLevelRiseCCRII.pdf)

**Challenging the Orthodoxy**
The Scientific Case for Vacating the EPA's Carbon Dioxide Endangerment Finding
By Patrick J. Michaels, CEI, Apr 21, 2020
https://cei.org/content/scientific-case-vacating-epas-carbon-dioxide-endangerment-finding
Link to paper: The Scientific Case for Vacating the EPA’s Carbon Dioxide Endangerment Finding: The Hazard of Unreliable Models Guiding Policy
By Patrick Michaels and Kevin Dayaratna, CEI, April 2020
https://cei.org/sites/default/files/Patrick_Michaels_and_Kevin_Dayaratna_-_The_Scientific_Case_for_Vacating_the_EPAs_Endangerment_Finding.pdf

CO2 fails to respond to economic shutdown, proof we are not the source
By Joe Bastardi, ICECAP, Apr 23, 2020
http://icecap.us/index.php/go/new-and-cool/co2_fails_to_respond_to_economic_shutdown_proof_we_are_not_the_source/

A Century of Sea Level Measurements at Newlyn, Southwest England
By E. Bradshaw, Journal of Marine Geodesy, Mar 18, 2020
https://www.tandfonline.com/doi/full/10.1080/01490419.2015.1121175

Systemic Misuse of Scenarios in Climate Research and Assessment
By Roger Pielke University of Colorado Boulder, Justin Ritchie, University of British Columbia, April 21, 2020 [H/t WUWT]
“Climate science research and assessments have misused scenarios for more than a decade. Symptoms of this misuse include the treatment of an unrealistic, extreme scenario as the world’s most likely future in the absence of climate policy and the illogical comparison of climate projections across inconsistent global development trajectories.”

Alarmists, Media Falsely Link Coronavirus to Climate
By H. Sterling Burnett, Climate Change Weekly, Apr 24, 2020

Bryce’s “A Question of Power”
By Bill Peacock, Master Resource, Apr 21, 2020
https://www.masterresource.org/bryce-robert/bryces-a-question-of-power/

“Happy Earth Day” (Julian Simon’s 25th anniversary essay speaks to us on the 50th)
By Robert Bradley Jr., Master Resource, Apr 22, 2020
https://www.masterresource.org/earth-day/happy-earth-day-simon-25th/

Not Running Out of Oil, or Sunshine
By Jennifer Marohasy, Her Blog, Apr 23, 2020
https://jennifermarohasy.com/2020/04/not-running-out-of-oil-or-sunshine/

Defending the Orthodoxy
Continued CO2 Emissions Will Impair Cognition
Rising CO2 causes more than a climate crisis—it may directly harm our ability to think
By Kristopher Karnauskas, et al. CIRES, Cooperative Institute for Research in Environmental Sciences at the University of Colorado Boulder, Apr 20, 2020 [H/t WUWT]
Fossil fuel combustion is driving indoor CO2 toward levels harmful to human cognition

By Karnauskas, Miller, and Schapiro, GeoHealth, Apr 20, 2020

Link to paper: Fossil fuel combustion is driving indoor CO2 toward levels harmful to human cognition

“CIRES is a partnership of NOAA and CU Boulder.”

“They [the authors] found that if the outdoor CO2 concentrations do rise to 930 ppm, that would nudge the indoor concentrations to a harmful level of 1400 ppm.

“In fact, at 1400 ppm, CO2 concentrations may cut our basic decision-making ability by 25 percent, and complex strategic thinking by around 50 percent, the authors found.”

[SEPP Comment: Is it physically possible to more than double CO2 to 930 ppm?]

United Nations: The Covid-19 Lockdown CO2 Emissions Fall is “unfortunately (only) short-term good news”

By Eric Worrall, WUWT, Apr 23, 2020

UN climate change fund calls coronavirus an 'opportunity' to re-shape the world

By Jack Houghton, Sky News, AU, Apr 20, 1010

UK citizens' assembly calls coronavirus a 'test run' for greener lifestyles

By Laurie Goering, Thomson Reuters Foundation, Apr 19, 2020

Questioning the Orthodoxy

New Studies Show Cloud Cover Changes Have Driven Greenland Warming And Ice Melt Trends Since The 1990s

By Kenneth Richard, No Tricks Zone, Apr 20, 2020

Earth Day at 50
"The paradox of environmentalism is that it is one of the most successful social movements in modern history that is nevertheless self-limited by its repellent fanaticism. Measured by the immense improvements in environmental quality in the U.S., the burst of environmental policy and action since the first Earth Day constitute arguably the most effective domestic policy initiative of our time."

The moment greens realize they’ve been used by Big Money Renewables — the Michael Moore documentary:
By Jo Nova, Her Blog, Apr 23, 2020

#EarthDay at 50: None Of The Eco-Doomsday Predictions Have Come True
By Ron Stein, WUWT, Apr 22, 2020

Zeroing In: Free Market Approaches to the 2050 Target with Dr Jamie Whyte [New Zealand]
Institute of Economic Affairs, Via GWPF, Apr 21, 2020

Video

Earth Day’s 50th Anniversary Showed We Have Much to Celebrate
By H. Sterling Burnett, Climate Realism, April 23, 2020
https://climaterealism.com/2020/04/earth-days-50th-anniversary-showed-we-have-much-to-celebrate/

Earth Day Turns 50
Half a century later, a look back at the forecasters who got the future wrong—and one who got it right
By Ronald Bailey, Reason, May 2020
https://reason.com/2020/04/22/earth-day-turns-50/

An Inconvenient Truth: We’re Winning the Battle Against Water Scarcity
By Matthew Kandrach, Real Clear Energy, April 20, 2020
https://www.realclearenergy.org/articles/2020/04/20/an_inconvenient_truth_were_winning_the_battle_against_water_scarcity_489563.html

Congress Must Investigate Chinese WHO Murky Mystery
By Larry Bell, Newsmax, Apr 20, 2020

COVID-19 Could Help Solve Climate Riddles
Pollution declines from pandemic shutdowns may aid in answering long-standing questions about how aerosols influence climate
By Adam Levy, Scientific American, Apr 17, 2020 [H/t GWPF]

**After Paris!**
Christian Figueres: Course Set In The 2015 Paris Agreement Is “In Serious Danger”
By P Gosselin, No Tricks Zone, Apr 21, 2020

[SEPP Comment: The winner of the 2018 April Fools award recognizes something?]

China relaxes restrictions on coal power expansion for third year running
By Gao Baiyu, China Dialogue, Apr 17, 2020 [H/t GWPF]

**Problems in the Orthodoxy**
The puzzle of China’s missing solar and wind finance along the Belt and Road (Part 1)
New paper sheds light on reasons behind the lack of renewable energy lending from China’s policy banks
By Tom Baxter, Panda Paw Dragon Claw, Apr 19, 2020 [H/t GWPF]

From 2000-2018 China’s two policy banks, the China Development Bank (CDB) and China Export Import Bank (CHEXIM), loaned over USD 251.3 billion to overseas energy sector projects. Of that finance, traditional energy sources such as coal and hydro dominated, occupying 45.2% and 33.7% of the total financing respectively. Just 2.3% went to wind and solar projects.

France’s citizens’ climate convention has come back to bite Macron
By Melanie McDonagh, The Spectator, Apr 18, 2020
https://www.spectator.co.uk/article/The-disastrous-French-climate-convention

“The thing about normal democracy is that it’s a way for us to choose people to make difficult decisions about policy and then implement them in law. In exceptional cases, the true direct democracy of a referendum can be used. Delegating these choices to a collection of unelected individuals is passing the buck.”

[SEPP Comment: Did Macron expect a Revolutionary Tribunal, established in 1792, following the 1789 French Revolution?]

**Seeking a Common Ground**
The contenders – and challenges – in the race to cure Covid
There are reasons to be optimistic about the therapies being tested
By Matt Ridley, His Blog, Apr 25, 2020
http://www.rationaloptimist.com/blog/race-to-cure-covid/

COVID discussion thread IV
By Judith Curry, Climate Etc. Apr 23, 2020
https://judithcurry.com/2020/04/23/covid-discussion-thread-iv/#more-26003

“My latest roundup of articles”

50th Earth Day: Compassionate concern for humans and their habitat
A measured response to COVID-19 must balance health and economic needs  

Climate change may push some species to higher elevations -- and out of harm's way  
Upslope movements may push species away from human pressure, which could reduce extinction risk for many mountain-dwelling species  
Press Release, Wildlife Conservation Society, Apr 24, 2020  
Link to paper: Topography and human pressure in mountain ranges alter expected species responses to climate change  
By Elsen, Monahan, & Merenlender, Nature, Communications, Apr 24, 2020  
https://www.nature.com/articles/s41467-020-15881-x

Commentary: An Earth Day unlike any other  
By Nicolas Loris, Baltimore Sun, Apr 21, 2020  

Science, Policy, and Evidence  
We Can't Allow Distancing From Our Sovereign Rights  
By Larry Bell, Newsmax, Apr 24, 2020  
https://www.newsmax.com/larrybell/civil-disobedience-liberties/2020/04/24/id/964490/

Signing off on This Year's Scapegoat  
By Roger Underwood, Quadrant, Apr 18, 2020  
On the bushfires: “They will fall back on the ‘Ministerials Formula’: (i) admit no errors; (ii) make no commitments; and (iii) find a scapegoat.”

Saving Economic Recovery from the Greens  
By John O'Sullivan, The Pipeline, Apr 20, 2020  
https://the-pipeline.org/saving-economic-recovery-from-the-greens/

The Pandemic: Cardinal Numbers No One Talks About  
By Vinay Kolhatkar, Savvy Street, Apr 20, 2020 [H/t WUWT]  

The world watches Australia and NZ tracking to zero — can we extinguish Coronavirus?  
By Jo Nova, Her Blog, Apr 25, 2020  

How many die of the Chinese virus, and how many die with it? #coronavirus  
By Christopher Monckton of Brenchley, WUWT, Apr 23, 2020  
Civil Liberties, the Economy & Typhoid Mary
By Donna Laframboise, Her Blog, Apr 20, 2020
https://nofrakkingconsensus.com/2020/04/20/civil-liberties-the-economy-typhoid-mary/

Releasing America Means Restoring Our Lives
By Larry Bell, Newsmax, Apr 22, 2020

Scientists criticise UK government's 'following the science' claim
Ministers accused of abdicating political duty to narrow field of opaque expertise on Covid-19
By Hannah Devlin and Sarah Boseley, The Guardian, Apr 23, 2020
https://www.theguardian.com/world/2020/apr/23/scientists-criticise-uk-government-over-following-the-science

Sweden says no-lockdown coronavirus response working
'We might be through this ... while you have it ahead of you'
By Staff, World Net Daily, Apr 24, 2020 [H/t Bernie Kepshire]

Why Outside Air is Safe and Park Closures Should End
By Cliff Mass, Weather Blog, Apr 18, 2020
“PSS: There are reasonable measures that could be done in parks, like closing active playgrounds and perhaps the bathrooms. Places where many people are physically touching the same objects.”

Review of Recent Scientific Articles by CO2 Science
CO2 Improvements in Maize Xylem Anatomy and Hydraulic Properties
http://www.co2science.org/articles/V23/apr/a11.php

Three Decades of Mangrove Forest Biomass Change in NSW, Australia
http://www.co2science.org/articles/V23/apr/a10.php
“The above findings represent incredible growth benefits reaped by mangrove forest ecosystems during a time of rising atmospheric CO2 and rising temperature, which findings are pretty much the opposite of the doom and gloom predictions offered by climate alarmists.”

The Combined Influence of CO2 and Temperature on St. John's Wort
Model Issues
Modelling Catastrophe In A Climate Of Fear
By Jaime Jessop, Climate Scepticism, Apr 19, 2020

Lessons From an Artist About Climate Models (Guest: Charles Battig)
Audio, Heartland, No Date

Stanford and Yale health experts: Reopen America!
'Astronomical error' in models used to justify shutting down economy
By Staff, WND, Apr 21, 2020 [H/t Bernie Keepshire]

Measurement Issues -- Surface
State of the climate: First quarter of 2020 is second warmest on record
By Zeke Hausfather, Carbon Brief, Apr 20, 2020

Hotter than the hottest thing... yawn
By John Robson, Climate Discussion Nexus, Apr 22, 2020
https://climatediscussionnexus.com/2020/04/22/hotter-than-the-hottest-thing-yawn/
“…claim that ‘The average temperature across land and ocean surfaces last month was 2.09 degrees Fahrenheit (1.16 degrees Celsius) warmer than the 20th century average.’ Seriously? You measured the temperature across the entire 500 million square kilometres of the Earth’s land and sea surface to two decimal places? How? Even at the more sophisticated monitoring stations in Canada or the United States, you’re lucky to get it to one decimal place. In rural Africa or the mid-Pacific, phooey.”

1919 or 2019? Welland Ontario Edition
By John Robson, Climate Discussion Nexus, Apr 22, 2020

Measurement Issues -- Atmosphere
When it comes to water, you have to think global
By Aries Keck for GSFC News, Greenbelt MD (SPX), Apr 21, 2020
https://www.terradaily.com/reports/When_it_comes_to_water_you_have_to_think_global_999.html

NASA Reports Arctic Stratospheric Ozone Depletion Hit Record Low in March
By Ellen Gray for GSFC News, Greenbelt MD (SPX), Apr 17, 2020
Are Droughts The Future Of Central Europe? German Data Show There’s Been No Trend
By Kirye and Pierre Gosselin, No Tricks Zone, Apr 23, 2020

A drought of common sense
By John Robson, Climate Discussion Nexus, Apr 22, 2020
https://climatediscussionnexus.com/2020/04/22/a-drought-of-common-sense/

Victoria Falls Back To Normal
By Paul Homewood, Not a Lot of People Know That, Apr 23, 2020

April 24, 1908 – Five Hundred Dead In Tornadoes
By Tony Heller, His Blog, Apr 24, 2020
[SEPP Comment: Other estimates of deaths from the 1908 Dixie tornado outbreak start at about 325 and go up.]

Guardian Notices City Beachside Homeowners are Wealthy Enough to Ignore Sea Level Rise
By Eric Worrall, WUWT, Apr 21, 2020

Bill Gates: $43M beachfront estate: Proof he’s a WUWT fan?
By David Middleton, WUWT, Apr 24, 2020

Ocean biodiversity has not increased substantially for hundreds of millions of years - new study
By Staff Writers, Birmingham UK (SPX), Apr 24, 2020
https://www.terradaily.com/reports/Ocean_biodiversity_has_not_increased_substantially_for_hundreds_of_millions_of_years__new_study_999.html

The ice that wouldn't melt
By John Robson, Climate Discussion Nexus, Apr 22, 2020
https://climatediscussionnexus.com/2020/04/22/the-ice-that-wouldnt-melt/
“We’ve only been measuring ice in a lot of these places since satellite coverage began in 1979. But we know that ice had been growing since the balmy 1940s when the RCMP sail-diesel schooner St. Roch did the Northwest Passage both ways. (And by the way, Amundsen himself had already traversed the Northwest Passage in a cockleshell fishing boat with a crew of six and a 13
horsepower paraffin engine to back up its sails in 1903, so yes, the Arctic will be navigable in a short period of time, provided you go backward.)”

*Agriculture Issues & Fear of Famine*

The Man Who Fed the World, And the Film that Condemned Him for It
By Gregory Conko, CEI, Apr 22, 2020

*Un-Science or Non-Science?*

Aquaculture at the crossroads of global warming and antimicrobial resistance
By Staff Writers, Montpellier, France (SPX), Apr 22, 2020
[https://www.terradaily.com/reports/Aquaculture_at_the_crossroads_of_global_warming_and_anti
microbial_resistance_999.html](https://www.terradaily.com/reports/Aquaculture_at_the_crossroads_of_global_warming_and_anti
microbial_resistance_999.html)
Link to paper: Aquaculture at the crossroads of global warming and antimicrobial resistance
By Miriam Reverter, Nature, Communications, Apr 20, 2020
[https://www.nature.com/articles/s41467-020-15735-6](https://www.nature.com/articles/s41467-020-15735-6)
From the abstract: “Countries most vulnerable to climate change will probably face the highest AMR (Multi-Antibiotic Resistance) risks, impacting human health beyond the aquaculture sector, highlighting the need for urgent action.”

*North pole will be ice-free in summer*

Study shows that if CO2 emissions are reduced rapidly, ice-free years may only occur occasionally
News Release, McGill U. Apr 21, 2020
Link to paper: Arctic Sea Ice in CMIP6
By Dirk Notz, Geophysical Research Letters, Apr 17, 2020
From the abstract: “We examine CMIP6 simulations of Arctic sea‐ice area and volume. “We find that CMIP6 models produce a wide spread of mean Arctic sea‐ice area, capturing the observational estimate within the multi‐model ensemble spread. The CMIP6 multi‐model ensemble mean provides a more realistic estimate of the sensitivity of September Arctic sea‐ice area to a given amount of anthropogenic CO2 emissions and to a given amount of global warming, compared with earlier CMIP experiments.”
[See links under Below the Bottom Line.]

*Lowering Standards:*

Journalistic Integrity Slows To Less Than A Trickle
By Tony Heller, His Blog, Apr 23, 2020
[https://realclimatescience.com/2020/04/journalistic-integrity-slows-to-less-than-a-trickle/](https://realclimatescience.com/2020/04/journalistic-integrity-slows-to-less-than-a-trickle/)

Enough with that topic already?
By John Robson, Climate Discussion Nexus, Apr 22, 2020
[https://climatediscussionnexus.com/2020/04/22/enough-with-that-topic-already/](https://climatediscussionnexus.com/2020/04/22/enough-with-that-topic-already/)
“In a high-octane screed in the Columbia Journalism Review, Hertsgaard writes with self-important relativism that ‘Collectively, the media exercises perhaps the greatest power there is in politics: the power to define reality, to say what is—and what is not—important at any given time.’ Normally this sort of vision of what one might call manufacturing consent comes from
paranoid postmoderns who think the media are against them and serve the powerful. But Hertsgaard is treating it as a feature not a bug.”

It came from outer space and entered politics
By John Robson, Climate Discussion Nexus, Apr 22, 2020

Communicating Better to the Public – Exaggerate, or be Vague?
2020 on track to be Earth's warmest year on record, NOAA says
By J. Edward Moreno, The Hill, Apr 21, 2020
Link to: Global Climate Report - March 2020
Global Annual Temperature Rankings Outlook
https://www.ncdc.noaa.gov/sotc/global/202003/supplemental/page-2

Estuaries are warming at twice the rate of oceans and atmosphere
By Staff Writers, Sydney, Australia (SPX), Apr 16, 2020
https://www.spacedaily.com/reports/Estuaries_are_warming_at_twice_the_rate_of_oceans_and_atmosphere_999.html
Link to paper: Climate change rapidly warms and acidifies Australian estuaries
By Elliot Scanes, Peter R. Scanes & Pauline M. Ross, Nature Communications, Apr 14, 2020
https://www.nature.com/articles/s41467-020-15550-z
“Estuary temperatures increased by 2.16 °C on average over 12 years, at a rate of 0.2 °C year−1, with waters acidifying at a rate of 0.09 pH units and freshening at 0.086 PSU year−1.”
[SEPP Comment: What is causing the “climate change?” It is not atmospheric gases.]

Communicating Better to the Public – Make things up.
Four Twenty Seven’s Error Strewn Report
By Paul Homewood, Not a Lot of People Know That, Apr 24, 2020
“For a supposedly professional company, part of the ratings organisation Moody’s, to publish such a shoddy, amateurish report as this, full of errors and naive assumptions, hardly does Four Twenty Seven’s reputation any good. Nor Moody’s for that matter.”

Meanwhile in the world of make-believe
By John Robson, Climate Discussion Nexus, Apr 22, 2020
“Specifically, CHN reports, ‘the Himalayan mountain kingdom of Bhutan is in the lead – it says that its forests and reliance on hydropower make it carbon negative already.’”

Communicating Better to the Public – Go Personal.
Delingpole : Michael Moore Is Now the Green New Deal’s Worst Enemy
By Paul Homewood, Not a Lot of People Know That, Apr 24, 2020

Communicating Better to the Public – Use Propaganda
German Review Of Moore Film: “About Selling Out Green Ideas”…Sustainability – In The Cayman Islands”
“Whenever I came across green energy, it wasn’t green energy”
By Die kalte Sonne, (Text translated by P. Gosselin), No Tricks Zone, Apr 24, 2020

Never Waste A Crisis
Climate Alarmism Surf’s Coronavirus
By Steve Milloy, Climate Realism, Apr 7, 2020

Expanding the Orthodoxy
A movement led by and for middle-class white people': On Earth Day, the fresh challenges for environmental campaigners
Analysis: Earth Day inspired landmark environmental legislation but activists now want everyone to have a seat at the table
By Louise Boyle, Independent, Apr 22, 2020
https://www.independent.co.uk/environment/earth-day-2020-climate-change-trump-environment-activists-a9477326.html

Guest post: Why coal phaseout is a ‘no-regret’ plan for tackling climate change
By Sebastian Rauner, Carbon Brief, Apr 21, 2020

On Earth Day, calls grow to treat shock of coronavirus with ‘green recovery’
By Staff, DNYUZ, Apr 22, 2020

Questioning European Green
Coronavirus Is Killing The Climate Agenda
By Staff Daily Telegraph, Via GWPF, Apr 21, 2020
https://www.thegwpf.com/coronavirus-is-killing-the-climate-agenda/

Questioning Green Elsewhere
For most of the world, it's impossible to 'eat local'
By Brooks Hays, Washington DC (UPI), Apr 17, 2020
https://www.seeddaily.com/reports/For_most_of_the_world_its_impossible_to_eat_local_999.html
“Researchers determined 100 kilometers, or 62 miles, was the maximum radius in which a sustainable local food system could exist -- a so-called foodshed.”

Checklist of Green Deal cost elements
By David Wojick, WUWT, Apr 18, 2020
Coronavirus reality check means Australian Green tape is on the chopping block
Now is the perfect time to get rid of pointless green burdens on our economy
By Jo Nova, Her Blog, Apr 24, 2020

**Funding Issues**

**Contest For The Most Brazen Attempt To Grab Federal "Stimulus" Money**
By Francis Menton, Manhattan Contrarian, Apr 23, 2020
https://www.manhattancontrarian.com/blog/2020-4-23-contest-for-the-most-brazen-attempt-to-grab-federal-stimulus-money

**Financiers of poverty, malnutrition and death – Part 2**
Private ‘philanthropic’ foundations keep African families destitute, malnourished, dying early
By Paul Driessen, WUWT, Apr 23, 2020

**Litigation Issues**

**Petition for Summary Dismissal of Petition for Listing and Rule-making Under Section 112 of the Clean Air Act to Establish CO2 as Hazard Air Pollutant and to Set National Emission Standards for CO2**
By Fred Palmer and Frank Clemente, Center for the Study of Carbon Dioxide and Global Change, Apr 22, 2020

**Courts again side with scientists after EPA blocked grantees from serving on its boards**
By Rebecca Beitsch, The Hill, Apr 21, 2020
“The report also found EPA did not follow the process for selecting the ’best qualified and most appropriate candidates’ for two committees that advise on environmental regulations and also ‘did not ensure that all appointees met ethics requirements.’” [Boldface Added]

**Legal Bid Launched To Stop U.K. Government’s £29 Billion Road Building Plans**
By Carlton Reid, Forbes, Apr 21, 2020

**Subsidies and Mandates Forever**

**Stimulating Clean Infrastructure Through NEPA Reform**
By Devin Hartman, Real Clear Energy, April 22, 2020
https://www.realclearenergy.org/articles/2020/04/22/stimulating_clean_infrastructure_through_nepa_reform_489766.html
“The private sector has amassed an immense appetite for clean energy, and it’s only growing hungrier. For example, wind and solar comprise 95% of the power generation projects seeking to come online in New England. Clean energy dominates new project queues in the Midwest, Great Plains, Texas and on the West Coast as well. But a variety of red tape hold these projects up, not to mention the transmission projects necessary to get energy to population centers.”
[SEPP Comment: If the subsidies and mandates are removed, how much “clean energy” would be built?]

Energy Issues -- US
Virginia Governor raises cost of energy… when Virginians can least afford it
By David Middleton, WUWT, Apr 23, 2020

For Energy, Affordability, Reliability, and Balance Matter More Now Than Ever
By Conor Bernstein, Real Clear Energy, Apr 24, 2020
https://www.realclearenergy.org/articles/2020/04/24/for_energy_affordability_reliability_and_balance_matter_more_now_than_ever_489969.html

Oil and Natural Gas – the Future or the Past?
Will crashing oil prices put American energy in its coffin?
By Simon Henderson, The Hill, Apr 21, 2020

The world can thank President Trump for the oil deal
By Merrill Matthews, The Hill, Apr 20, 2020
https://thehill.com/opinion/energy-environment/493614-the-world-can-thank-president-trump-for-the-oil-deal

Alternative, Green (“Clean”) Solar and Wind
New Michael Moore-Backed Documentary On YouTube Reveals Massive Ecological Impacts Of Renewables
By Michael Shallenberger, Forbes, Apr 21, 2020
Link to Planet of the Humans: https://www.youtube.com/watch?v=Zk11vI-7czE

Energy & Environmental Newsletter: April 20, 2020
By John Droz, Jr, Master Resource, Apr 20, 2020
https://www.masterresource.org/alliance-for-wise-energy-decisions/energy-environmental-newsletter-april-20-2020/

Alternative, Green (“Clean”) Vehicles
Lock Down Exposes Diesel Ban Folly As Air Quality Fails To Improve …Other Factors In Play
By P Gosselin, No Tricks Zone, Apr 19, 2020

Daimler ends hydrogen car development because it’s too costly
By Bradley Berman, Electrek, Apr. 22, 2020
Health, Energy, and Climate
Does climate change facilitate the spread and transmission of dengue?
By Staff, Healio: Infectious Diseases in Children, March 2020 [H/t WUWT]

Environmental Industry
Michael Moore Film May Splinter Green Movement, Calls Green Energies “A Delusion”, Billionaire Bonanza
By P Gosselin,, No Tricks Zone, Apr 22, 2020

Other News that May Be of Interest
Simulating early ocean vents shows life's building blocks form under pressure
By Staff Writers, Pasadena CA (JPL), Apr 16, 2020
https://www.spacedaily.com/reports/Simulating_early_ocean_vents_shows_lifes_building_blocks_form_under_pressure_999.html
Link to: Astrobiology at NASA
https://astrobiology.nasa.gov/

BELOW THE BOTTOM LINE:

Scientists Are Stuck on an Ice-Locked Ship in the Arctic Due to Coronavirus
Organizers of the MOSAiC expedition are determining the best way to bring a relief crew to the ship without spreading the virus, which could leave roughly 100 scientists and crew on board for an extra six weeks.
By Maddle Stone, Vice, Mar 27, 2020 [H/t Tony Heller]

Arctic To Be Ice-Free, Again
By Tony Heller, His Blog, Apr 24, 2020
https://realclimatescience.com/2020/04/arctic-to-be-ice-free-again/

Finally! “North Pole soon to be ice free in summer” – Why did it take so long?
By David Middleton, WUWT, Apr 21, 2020

Global Warming Empties Maldives’ Beaches
Just as the experts predicted 30 years ago.
By Tony Heller, His Blog, Apr 24, 2020
“Just as the experts predicted 30 years ago.”
The Bearer of Good Coronavirus News
Stanford scientist John Ioannidis finds himself under attack for questioning the prevailing wisdom about lockdowns.
By Allysia Finley, WSJ, Apr 24, 2020

TWTW Summary: The member of the WSJ editorial board states:

“Defenders of coronavirus lockdown mandates keep talking about science. ‘We are going to do the right thing, not judge by politics, not judge by protests, but by science,’ California’s Gov. Gavin Newsom said this week. Michigan Gov. Gretchen Whitmer defended an order that, among other things, banned the sale of paint and vegetable seeds but not liquor or lottery tickets. ‘Each action has been informed by the best science and epidemiology counsel there is,’ she wrote in an op-ed.

“But scientists are almost never unanimous, and many appeals to ‘science’ are transparently political or ideological. Consider the story of John Ioannidis, a professor at Stanford’s School of Medicine. His expertise is wide-ranging—he juggles appointments in statistics, biomedical data, prevention research and health research and policy. Google Scholar ranks him among the world’s 100 most-cited scientists. He has published more than 1,000 papers, many of them meta-analyses—reviews of other studies. Yet he’s now found himself pilloried because he dissents from the theories behind the lockdowns—because he’s looked at the data and found good news.

“In a March article for Stat News, Dr. Ioannidis argued that Covid-19 is far less deadly than modelers were assuming. He considered the experience of the Diamond Princess cruise ship, which was quarantined Feb. 4 in Japan. Nine of 700 infected passengers and crew died. Based on the demographics of the ship’s population, Dr. Ioannidis estimated that the U.S. fatality rate could be as low as 0.025% to 0.625% and put the upper bound at 0.05% to 1%—comparable to that of seasonal flu.

“If that is the true rate,’ he wrote, ‘locking down the world with potentially tremendous social and financial consequences may be totally irrational. It’s like an elephant being attacked by a house cat. Frustrated and trying to avoid the cat, the elephant accidentally jumps off a cliff and dies.’

After some background on Ioannidis, the journalist writes:

“Scientific studies are often infected by biases. ‘Several years ago, along with one of my colleagues, we had mapped 235 biases across science. And maybe the biggest cluster is biases that are trying to generate significant, spectacular, fascinating, extraordinary results,’ he says. ‘Early results tend to be inflated. Claims for significance tend to be exaggerated.’

“An example is a 2012 meta-analysis on nutritional research, in which he randomly selected 50 common cooking ingredients, such as sugar, flour and milk. Eighty percent of them had been studied for links to cancer, and 72% of the studies linked an ingredient to a higher or lower risk. Yet three-quarters of the findings were weak or statistically insignificant.
“Dr. Ioannidis calls the coronavirus pandemic ‘the perfect storm of that quest for very urgent, spectacular, exciting, apocalyptic results. And as you see, apparently our early estimates seem to have been tremendously exaggerated in many fronts.’

‘Chief among them was a study by modelers at Imperial College London, which predicted more than 2.2 million coronavirus deaths in the U.S. absent ‘any control measures or spontaneous changes in individual behaviour.’ The study was published March 16—the same day the Trump administration released its ‘15 Days to Slow the Spread’ initiative, which included strict social-distancing guidelines.

‘Dr. Ioannidis says the Imperial projection now appears to be a gross overestimate. ‘They used inputs that were completely off in some of their calculation,’ he says. ‘If data are limited or flawed, their errors are being propagated through the model. . . . So if you have a small error, and you exponentiate that error, the magnitude of the final error in the prediction or whatever can be astronomical.’

‘I love models,’ he adds. ‘I do a lot of mathematical modeling myself. But I think we need to recognize that they’re very, very low in terms of how much weight we can place on them and how much we can trust them. . . . They can give you a very first kind of mathematical justification to a gut feeling, but beyond that point, depending on models for evidence, I think it’s a very bad recipe.’

‘Modelers sometimes refuse to disclose their assumptions or data, so their errors go undetected. Los Angeles County predicted last week that 95.6% of its population would be infected by August if social distancing orders were relaxed. (Confirmed cases were 0.17% of the population as of Thursday.) But the basis for this projection is unclear. ‘At a minimum, we need openness and transparency in order to be able to say anything,’ Dr. Ioannidis says.

‘Most important, ‘what we need is data. We need real data. We need data on how many people are infected so far, how many people are actively infected, what is really the death rate, how many beds do we have to spare, how has this changed.’

‘That will require more testing. Dr. Ioannidis and colleagues at Stanford last week published a study on the prevalence of coronavirus antibodies in Santa Clara County. Based on blood tests of 3,300 volunteers in the county—which includes San Jose, California’s third-largest city—during the first week of April, they estimated that between 2.49% and 4.16% of the county population had been infected. That’s 50 to 85 times the number of confirmed cases and implies a fatality rate between 0.12% and 0.2%, consistent with that of the Diamond Princess.

‘The study immediately came under attack. Some statisticians questioned its methods. Critics noted the study sample was not randomly selected, and white women under 64 were disproportionately represented. The Stanford team adjusted for the sampling bias by weighting the results by sex, race and ZIP Code, but the study acknowledges that ‘other biases, such as bias favoring individuals in good health capable of attending our testing sites, or bias favoring those with prior Covid-like illnesses seeking antibody confirmation are also possible. The overall effect of such biases is hard to ascertain.’
“Dr. Ioannidis admits his study isn’t ‘bulletproof’ and says he welcomes scrutiny. But he’s confident the findings will hold up, and he says antibody studies from around the world will yield more data. A study published this week by the University of Southern California and the Los Angeles County Department of Public Health estimated that the virus is 28 to 55 times as prevalent in that county as confirmed cases are. A New York study released Thursday estimated that 13.9% of the state and 21.2% of the city had been infected, more than 10 times the confirmed cases.

‘Yet most criticism of the Stanford study has been aimed at defending the lockdown mandates against the implication that they’re an overreaction. ‘There’s some sort of mob mentality here operating that they just insist that this has to be the end of the world, and it has to be that the sky is falling. It’s attacking studies with data based on speculation and science fiction,’ he says. ‘But dismissing real data in favor of mathematical speculation is mind-boggling.’

‘In part he blames the media: ‘We have some evidence that bad news, negative news [stories], are more attractive than positive news—they lead to more clicks, they lead to people being more engaged. And of course we know that fake news travels faster than true news. So in the current environment, unfortunately, we have generated a very heavily panic-driven, horror-driven, death-reality-show type of situation.’

“The news is filled with stories of healthy young people who die of coronavirus. But Dr. Ioannidis recently published a paper with his wife, Despina Contopoulos-Ioannidis, an infectious-disease specialist at Stanford, that showed this to be a classic man-bites-dog story. The couple found that people under 65 without underlying conditions accounted for only 0.7% of coronavirus deaths in Italy and 1.8% in New York City.

‘Compared to almost any other cause of disease that I can think of, it’s really sparing young people. I’m not saying that the lives of 80-year-olds do not have value—they do,’ he says. ‘But there’s far, far, far more . . . young people who commit suicide.’ If the panic and attendant disruption continue, he says, ‘we will see many young people committing suicide . . . just because we are spreading horror stories with Covid-19. There’s far, far more young people who get cancer and will not be treated, because again, they will not go to the hospital to get treated because of Covid-19. There’s far, far more people whose mental health will collapse.’

‘He argues that public officials need to weigh these factors when making public-health decisions, and more hard data from antibody and other studies will help. ‘I think that we should just take everything that we know, put it on the table, and try to see, OK, what’s the next step, and see what happens when we take the next step. I think this sort of data-driven feedback will be the best. So you start opening, you start opening your schools. You can see what happens,’ he says. ‘We need to be open minded, we need to just be calm, allow for some error, it’s unavoidable. We started knowing nothing. We know a lot now, but we still don’t know everything.’

‘He cautions against drawing broad conclusions about the efficacy of lockdowns based on national infection and fatality rates. ‘It’s not that we have randomized 10 countries to go into lockdown and another 10 countries to remain relatively open and see what happens, and do that randomly. Different prime ministers, different presidents, different task forces make decisions, they implement them in different sequences, at different times, in different phases of the epidemic. And then people start looking at this data and they say, ‘Oh look at that, this place did very well. Why? Oh, because of this measure.’ This is completely, completely opinion-based.’
‘People are making ‘big statements about ‘lockdowns save the world.’ I think that they’re immature. **They’re tremendously immature.** They may have worked in some cases, they may have had no effect in others, and they may have been damaging still in others.’

“Most disagreements among scientists, he notes, reflect differences in perspective, not facts. Some find the Stanford study worrisome because it suggests the virus is more easily transmitted, while others are hopeful because it suggests the virus is far less lethal. ‘It’s basically an issue of whether you’re an optimist or a pessimist. Even scientists can be optimists and pessimists. Probably usually I’m a pessimist, but in this case, I’m probably an optimist.’ [Boldface added]