



the weekly anthropocene

dispatches from the wild, weird world of humanity and its biosphere



By Sam Matey, March 18, 2020

COVID-19. This week, the COVID-19 pandemic and the rise of “social distancing measures” is dominating the world news, and most peoples’ thoughts. Besides the obvious tragedy of those affected and the importance of following WHO and CDC recommendations to prevent the spread of the virus, the ongoing story of the novel coronavirus holds important lessons about the Earth system in the Anthropocene. This is a zoonotic disease, directly attributable to the practice of eating wildlife meat-and the outbreak has led China to ban that practice. The effects of the disease are harming the fight against climate change: supply chains for wind turbines and solar panels have been substantially disrupted by Chinese factory closures, and preliminary talks for the critical UN Climate Conference in November have been canceled for fear of spreading the disease. However, this crisis also offers opportunities to change our societal habits for the better. If working from home and virtual meetings become the norm due to COVID-19, emissions from commutes and air travel would be reduced. Furthermore, the changes wrought by the coronavirus have shown us just how deadly “business-as-usual” really is. Stanford University Earth Systems Professor Michael Burke calculated the lives saved by the two months of heavily reduced air pollution in China while it was under coronavirus-induced lockdown. Even with the most conservative estimates, the reduced air pollution has saved over 53,000 people, while COVID-19 has killed less than 4,000 people in China. (For more, see tinyurl.com/ChinaCOVID19Pollution). Stay safe.

Tierra del Fuego. Off the island of Tierra del Fuego, the southernmost point in the Americas, the seas are home to rich and diverse kelp forests. They were scientifically surveyed in 1973 and weren’t revisited for decades...until a 2018 expedition, the results of which have just been published. Impressively, they found that the kelp forests were still essentially pristine, with the same relative abundance of vital species like kelp, sea urchins, and sea stars. Dr. Alan Friedlander, lead author of the new paper, said "The kelp forest of the extreme tip of South America

are some of the most pristine on earth and have not changed substantially since the early 1970s, when they were first surveyed...re-examination of this remote region is incredibly valuable in this age of climate change and gives us a better understanding of how these ecosystems function in the absence of direct human impacts." In short, this is an encouraging sign that if protected from human exploitation, ecosystems can stay strong in the face of the changes of the Anthropocene. Good news! For more, see tinyurl.com/qsrhnbq. For the full study, see tinyurl.com/FullKelpStudy.





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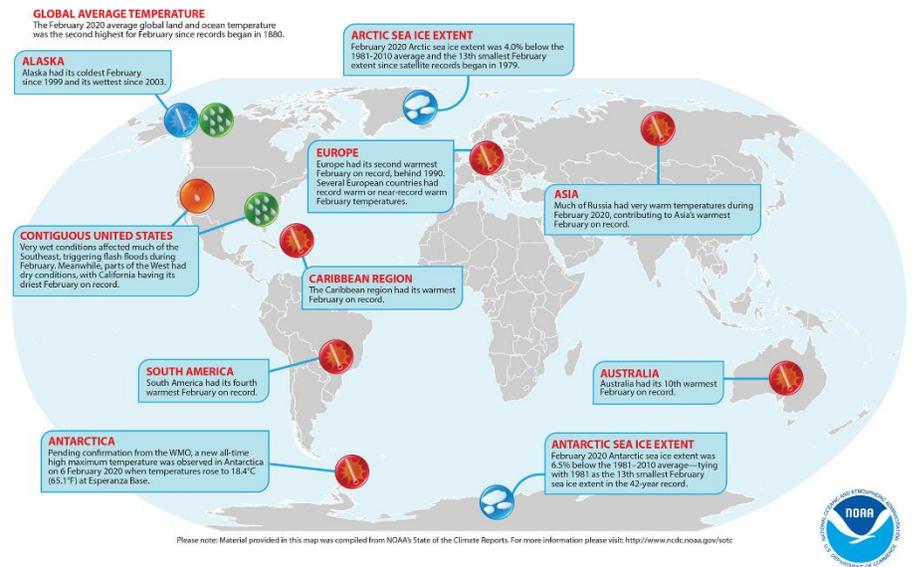


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Earth. According to NOAA, Earth just had its second-hottest February on record. February 2020 alone, the December 2019-February 2020 period, and the January-February 2020 period were all the second-hottest since 1880 (see map). Climate change continues. For more, see tinyurl.com/2ndHottestFeb.

Selected Significant Climate Anomalies and Events: February 2020



Virginia. In 2019, Democrats took both houses of Virginia's legislature for the

first time in years. Now, the Virginia Legislature has passed the epic Virginia Clean Economy Act. It's now headed to Governor Ralph Northam's desk, and he is all but certain to sign it. This is a big deal, and really good news. The VCEA creates a Virginian carbon cap-and-trade program and has the state join the Regional Greenhouse Gas Initiative, an alliance of northeastern states pursuing market-based emissions-reduction strategies. It also commits Virginia to reaching 100% renewable energy by 2050, with specific interim targets including 58% renewables by 2030, 73% by 2035, and 88% by 2040. It bans the issuance of permits for new fossil fuel power plants until a study on how to reach 100% is completed-and then allows the state to issue longer-term fossil fuel permit bans at will. It also gives the state's two major utilities, Dominion and ApCo, marching orders to construct specific quantities (or more) of energy storage capacity, offshore wind, and rooftop solar, raises the amount consumers can be paid for selling rooftop solar to the grid, and shuts down almost all of Virginia's coal plants by 2030. (As part of the political horse-trading to get the bill passed, a few coal plants in key districts were allowed to remain open until 2045). Finally, an economic analysis of the new law estimated that it would create approximately 101,400 jobs in Virginia, mostly in the field of energy efficiency.

This is, quite simply, awesome. It's what every state and nation should be doing, and puts Virginia in the illustrious company of California, Hawaii, Nevada, New Mexico, New York, Washington, and Maine, the other states committed to 100% carbon-free energy. What's perhaps even more impressive is that before this, Virginia, like most of the South, had no mandated renewable energy targets at all. Previous states to commit to 100% renewables, like California and New York, had taken years to work up to it, but Virginia went at a stroke from "no plan" to "one of the leaders of the nation." Spectacular news! For more, see tinyurl.com/VirginiaCleanEconomyAct.