



the weekly anthropocene



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

By Sam Matey, January 27, 2020

United States. Joe Biden was inaugurated as the 46th US President on January 20th, and is already starting to follow through on his campaign promises to fight the climate crisis and transition America to renewable energy. The two highest-profile executive actions were rejoining the Paris Agreement to limit greenhouse gas emissions, and shutting down the Keystone XL pipeline, hopefully once and for all. Both of these are early, easy wins: directly



in the President's control and bringing us back to the status quo during the Obama Administration before Trump was elected. However, Biden also signed some more technical and in-the-weeds executive orders (pictured: Biden signing executive orders at the Resolute Desk) aimed at restoring a wide array of regulatory protections attacked by Trump, and moving forward to make new changes. In his last months in office, the Trump Administration acted as a 360-degree sprinkler of anti-environment sewage, forcing through last-minute regulatory rollbacks to strip away endangered species protections, cut the authority to mandate greenhouse gas emissions, and more. Biden slated a wide list of these last-minute attacks for a "freeze" and eventual review, the first step in getting rid of them. He also announced plans for "an interim social cost of greenhouse gas schedule to ensure that agencies account for the full costs of greenhouse gas emissions, including climate risk, environmental justice and intergenerational equity." This sounds technical and dry, but it's a big deal: basically saying that the EPA and other federal agencies will take into account the full spectrum of the damages wrought by fossil fuels, from asthma in poor and minority communities to the risk of collapsing West Antarctic ice sheets in the 2100s. Great first steps! For more, see tinyurl.com/BidenDayOneClimateActions.

In the months ahead, the confirmation of Biden's awesome environment-focused cabinet nominees from Pete Buttigieg to Deb Haaland to Jennifer Granholm will help turn the federal government into the leader on climate action it always should have been. More climate and environment-focused executive orders are in the offing, with many reportedly scheduled for the day this newsletter is released, January 27th. Biden is reportedly planning to host a special climate summit in the US on Earth Day 2021, to boost international will for stronger climate action commitments. And there's a decent shot at getting some serious investment in renewable energy infrastructure in a stimulus bill, especially with Senator Bernie Sanders in charge of the Senate Budget Committee. As always, progress will be slower than we like-but we now have a really good shot at serious momentum on the climate fight! Thanks to all those Americans who voted for decency and democracy in November-we're seeing one of the many ways it's paying off. Truly great news.



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Climate. In a recent conversation with a peer of my age group, I realized that even among those ordinary citizens who accept the reality of climate change, there's often a fundamental misunderstanding of the nature of the threat. There's a common misconception, frequently brought up by those trying to discredit the idea of climate action, that climate scientists say that "the world will end by 2030" or in some other particular date in the future. This narrative reframes the climate crisis as something like an asteroid impact or nuclear war, a movie-style armageddon in which horrible things will happen on some date in the future and we either stop it or don't. It would be harder to be harder from the truth. The "apocalypse 2030" meme originated with a [2018 UN Intergovernmental Panel on Climate Change \(IPCC\) report](#) warning, based on the best available science, that we were likely to experience 1.5 degrees Celsius warming above the pre-industrial baseline by 2030. (We're already at about 1.0 degrees C or more). Specifically, what the IPCC report in 2018 said (see ipcc.ch/sr15/chapter/spm/) was "Human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C. Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate. (*high confidence*)." And it warned, accurately, that a wide array of studies have found that a 1.5 C world will have a lot of negative impacts across many domains, from the spread of tropical diseases to flooding to crop failures. Through a game of telephone on traditional and social media, this turned into "climate scientists and activists are saying the world will end in ten years, so it's the apocalypse if you believe them and they're crazy if you don't." It's important to remember: there will be no day, ever, when a magical switch is flipped and trumpets will blare "the climate crisis is finally here, now, upon us!" If it made sense to make a binary declaration like that, it would already have been made. We already live in a world warmer than at any previous point in human civilizations, and we're already seeing the unprecedented wildfires, storms, floods, and droughts that come with that. This newsletter is written in part to help people understand that the climate crisis is happening *now*, right this second, every day. For example, just this week, [Cyclone Eloise struck the city of Beira, Mozambique](#), directly affecting 160,000 people. That's the *third* major cyclone to hit Mozambique in recent years, after Cyclones Idai and Kenneth in 2019. And [a major new paper in The Cryosphere](#) found that the rate of ice loss worldwide is speeding up. The world will not end in ten years. But if it does hit 1.5 degrees warming in ten years, and it's likely to do, then it will be a world with more wildfires, storms, extinctions, climate refugees, heatwaves, and tropical diseases, and less permafrost, glaciers, sea ice, and species able to survive in all of their traditional range. That's worth fighting to prevent—but not giving up hope about. The future of this planet is still, and will continue to be, up to us.

Finally, for more clarity on this issue, here's a great interactive site (with citations for its data!) on what to expect from 1.5 C, 2 C, and beyond: <https://interactive.carbonbrief.org/impacts-climate-change-one-point-five-degrees-two-degrees/>. And here's a great MIT-developed climate simulator: <https://en-roads.climateinteractive.org/>.



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Guinea. A beautiful new species of orange-furred bat has been discovered in the caves and mining tunnels of the Nimba Mountains in the nation of Guinea, in West Africa. (Not the same place as the other African nations of Guinea-Bissau and Equatorial Guinea, the South American French Guiana and Guyana, or the huge island of New Guinea, north of Australia. And guinea pigs aren't from any of those places, but from the Andes Mountains. [Yes, it's confusing.](#)) The new bat has



been dubbed *Myotis nimbaensis*, and is suspected to be found only in the “sky islands” of the Nimba range. It's always a pleasure to learn of a new member of the great family of life on Earth! For more, see tinyurl.com/NewOrangeBat.

Namibia. A new study has chronicled the incredible effectiveness of a simple trick to protect seabirds from fishing fleets. The Namibian longline fishing fleet, like most long-line fishers, had a problem with seabirds swooping on their lines of baited hooks, becoming entangled and dying. This created extra work for fishers and greatly harmed threatened species like white-chinned petrels, Atlantic yellow-nosed albatrosses and cape gannets. Then, in 2015, one change became mandatory: towing “streamers” of red and yellow hosepipe (prepared by a team of five women in the port of Walvis Bay) behind longline boats, as the bright colors seemed to scare off the birds. Astonishingly, the study calculated that over 22,000 seabirds were likely killed by the Namibian fishing fleet in 2009, but just 215 in 2019—despite the fleet using more hooks that year. That's a 98.5% reduction in deaths via a simple, cheap, and easy fix. This is a great example of how small shifts in behavior can help people and wildlife coexist! For more, see tinyurl.com/NamibiaBirdsSaved.

Brazil. The people and wildlife of the Amazon Rainforest are undergoing a truly horrendous time. “P.1.,” a new, more deadly strain of COVID-19, is ravaging the region, with indigenous peoples particularly vulnerable and Trump-esque Brazilian President Bolsonaro offering little to no assistance. The governor of the state of Amazonia (the capital of which, Manaus, is the epicenter of the P.1. wave) took the extraordinary step of bypassing his own ineffectual government to beg the international community for assistance. Illegal deforestation and mining, wildlife trafficking, and wildfires are out of control, with the Brazilian government fostering a culture of impunity. An array of environmental criminals previously fined for illegal logging winning government posts in November municipal elections, and deregulation is spurring new waves of land-grabbing and assaults on indigenous people's territories. For regular updates on the situation in Brazil, see news.mongabay.com/?s=brazil.