

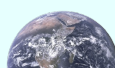


Dispatches From The Wild, Weird World Of Humanity And Its Biosphere

June 16 2021

## Maine

In yet another bold step forward for climate action in the Pine Tree State, Maine's state legislature [has passed LD 99](#), a landmark bill divesting Maine's state pension fund from the fossil fuel industry. Maine's pension fund consists of 17 billion dollars, 1.3 billion of which is invested in coal, oil, and gas companies. LD 99 (which renowned pro-environment Governor Janet Mills is essentially certain to sign into law) mandates the reinvestment of that 1.3 billion away from fossil fuels by 2026. This makes Maine the first state to mandate fossil fuel divestment by passing a law (New York State's pension fund also made some commitments to fossil fuel divestment, but that was an executive decision by fund administrators). This is excellent news-it's both an ethical thing to do to stop funding climate destruction, and it's a smart financial move to get Maine pensioners' money out of an outmoded and dying industry. Plus, this will set an example for the many other states considering divestment plans, [possibly starting a snowball effect](#). Superb news-it's heartening to see Maine leading the nation on climate issues once again!



## *Aedes aegypti*

*Aedes aegypti* (pictured) is a species of mosquito, originally from Africa, that has been transported all around the world in the last few centuries, first in slave ships and now often in [used tires](#). It's perhaps the single life-form most responsible for causing avoidable human suffering in the world: this one species is the main carrier for yellow fever, Zika virus, chikungunya, Mayaro virus, dengue or "breakbone" fever, and other tropical diseases. (It doesn't carry malaria, though: that's spread by *Anopheles* mosquitoes). [Over three billion people](#)-40% of humanity-live in areas with a high risk of dengue fever, and an estimated 390 million people get sick with it every year. Although death occurs in only a very small fraction of cases, with only about 25,000 dying per year despite the millions infected, the disease is still a major cause of human suffering. Furthermore, cases have been rising rapidly for the past two decades as the world warms; the *Aedes* mosquito is viewed as a major risk of climate change, as studies have warned that warming temperatures will enable [its spread further](#) into temperate regions of the world like North America and Europe.



Fortunately, humanity has recently developed an extraordinary shield to protect ourselves from the *Aedes* mosquitoes and their diseases. A research team led by the [World Mosquito Project](#) has been working for years on a technique that painstakingly infects a few *Aedes* mosquito individuals with a strain of the biologically fascinating [Wolbachia bacteria](#), then releases them. The bacteria soon spreads through the wild mosquito population and outcompetes disease viruses to become the dominant microbial parasite within their bodies, substantially inhibiting their ability to spread dengue fever, as well as Zika and all the rest. [Recently published data](#) from a gold-standard randomized controlled trial held in Yogyakarta, Indonesia found that the *Wolbachia*-introduction method reduced incidence of dengue by 77% in the neighborhoods where they were introduced-astonishingly effective results, even though people move around and could still easily contract dengue in other parts of the city! Ed Yong's *The Atlantic*

article "A Fight Against Dengue Fever in Southeast Asia" is a great read on this topic.

article "[A Pivotal Mosquito Experiment Could Not Have Gone Better](#)" outlines the research and its extraordinary implications in detail. It's hard to overstate just what an incredible solution this is: easy to implement, self-spreading, self-perpetuating, and ethically flawless. Unlike with pesticides, no beneficial insects are killed-the bacterium doesn't even kill the mosquitoes it takes over. As for ease, it's as though you only had to COVID-vaccinate a few people and then immunity would naturally spread through the population. And unlike with vaccines and drugs, it's very hard for viruses to evolve resistant strains, since the *Wolbachia* bacteria can evolve tougher strains of itself right back, without the need for human R&D effort for every new genetic tweak. The World Mosquito Program is now working in 11 countries and hopes to be protecting 75 million people with *Wolbachia* by 2025, and half a billion by 2030. This is absolutely spectacular news, and a beautiful example of human power to create a better world.



## Recommended Reading

In lieu of a third main story, this week we're offering an array of links to more in-depth stories.

In 2000, there were only about 50 Delacour's langurs left in the Van Long region of Vietnam, without many more elsewhere. German primatologist Tilo Nadler and thirty local volunteers



formed an incredibly effective Community Protection Unit that appears to have reduced poaching to zero in what is now the [Van Long Nature Reserve](#). The population of Delacour's langurs in Van Long (some of them pictured, above) has now quadrupled to 200, forming the vast majority of the estimated 234-275 individuals left in the world. Nadler is currently working to create new reserves around the other isolated langur populations, and introduce langurs from Van Long to stable preexisting protected areas elsewhere in Vietnam. [This article](#) is an excellent look at an example of the epic endeavors that have striven to save species from the brink of extinction, often with astonishing success.

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Caitrin Keiper's [Do Elephants Have Souls?](#), published in a 2013 edition of *The New Atlantis*, is a magisterial synthesis of the state of human knowledge on the social, behavioral, neural, and psychological complexity of these amazing creatures. Did you know that a female elephant is normally never alone, from birth until death, living her entire life in a matriarchal group while males wander the countryside on their own or in loose bands with other males? That elephants are the only creatures besides humans with funerary and death rituals? That elephants dig watering holes and make protective plugs for them out of bark? hat elephants have been observed to care for injured humans and other animals, and bury dead ones? After reading this, it's hard to avoid concluding that humans would instantly recognize elephants as a fellow sentient, conscious, mind-rich species if we happened to find them on another planet-and that we have an obligation to do so on this one.

On election night in 2016, [Jessica Reznicek and Ruby Montoya set fire to \\$2.6 million of heavy machinery](#) that was being used to build the Dakota Access Pipeline in Iowa-a highly destructive, Indigenous land-stealing project that President Obama shut down and President Trump fast-tracked to completion. After publicly and proudly admitting their actions in 2017, they faced the threat of centuries in jail under an anti-terrorism provision of the Patriot Act-eventually taking a plea bargain and now living under ankle-monitored house arrest. [Julia Shipley's article from Grist](#) covers their extraordinary journey, and their willingness to place their freedom on the line for their beliefs

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**The Weekly Anthropocene**

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