



# the weekly anthropocene



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

By Sam Matey, February 10, 2021

**Madagascar.** A new species of chameleon has been discovered in Madagascar, and it's likely the world's smallest reptile (depending on how one counts tail length). In 2012, Malagasy guide Angeluc Razafimanantsoa collected two specimens, and German herpetologist Frank Glaw led a team analyzing and formally describing the new species. *Brookesia*



*nana* males are only 14 millimeters (0.55 inches) long, small enough to perch on a pill. They also have disproportionately large genitals for their size, likely because the species' females are 19 millimeters (0.75 inches) long. (An adult male is pictured, with a human fingertip for scale). They only live in a band of rainforest on the Sorata massif in northern Madagascar. The area is threatened by deforestation for fuel wood, pasture, and farmland, but there are also efforts to protect it underway. *Brookesia nana* is a fascinating addition to humanity's knowledge of life on Earth! For more, see [tinyurl.com/2xfmjs4d](https://tinyurl.com/2xfmjs4d).

**Gulf of Mexico.** In January 2019, a dead whale washed up in Florida. It originated from a small, isolated population of Bryde's whales living in the Gulf of Mexico that biologists had long been curious about, as they looked different and fed at greater depths than other Bryde's whales. A team of scientists seized the opportunity to study the skeleton (pictured), and between that and genetic differences discovered that the whale wasn't a Bryde's whale at all, but a new species that has been dubbed



Rice's whale (*Balaenoptera ricei*). Sadly, this new species is having a very difficult Anthropocene. The Gulf of Mexico is dense with ship traffic, oil rigs, and pollution, and the type specimen of Rice's whale had plastic debris lacerating its guts and two broken ribs that likely originated from a ship collision. The 2010 Deepwater Horizon oil spill is estimated to have substantially decreased the population. There are likely fewer than 100 individuals left, possibly far fewer, making Rice's whales critically endangered. However, as a new whale species, Rice's whale will automatically receive legal protections under America's Marine Mammal Protection Act-plus a lot more scientific attention. Now that we've figured out what they are, we have a chance to save Rice's whales for the future! For the full story, see [tinyurl.com/ginbz6a5](https://tinyurl.com/ginbz6a5).



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**China.** As the world's largest greenhouse gas emitter, the energy decisions made in China are critical to the fight against climate change and the future of the planet. On that front, 2020 brought mixed news. The good news is that China built a [truly immense amount of renewable energy](#): according to China's National Energy Administration (NEA), the country added 72 gigawatts (GW) of new wind power, 48 GW of solar, and 13 GW of hydropower. (Pictured: [a new wind turbine hub](#) before blades are installed). This is a



record, by far, and a very impressive sign that China is committed to building out renewables. The bad news is that [China also added 38.4 GW of new coal-fired power](#) in 2020, and counting decommissioned coal plants, increased its coal-fired capacity by a net 29.8 GW. Notably, at the same time the rest of the world made a net decrease in coal capacity of 17.2 GW. China also has 247 GW of coal power under development at some stage, either being built or planned for the future. And China [really needs to stop building coal power anywhere](#) to meet climate goals. (For some context on the numbers here, one gigawatt equals one thousand megawatts equals one million kilowatts equals one billion watts. A gigawatt is also equal to [412 utility-scale wind turbines or 1.3 million horsepower](#). At the end of 2019, the US had about [1,100 gigawatts](#) of grid-scale electricity generation capacity. A gigawatt is a *lot* of power).

However, there are some positive signs that the balance will tip in favor of renewables, not coal, in China's near future. First, of course, Chinese President Xi Jinping pledged in September that China would reach carbon neutrality by 2060. Second, a new development seems to give this goal teeth: an inspection authorized by the ruling Chinese Communist Party Central Committee [sharply criticized](#) the NEA for failing to limit the expansion of coal power plants and urged it to speed up renewable energy development. This is a [really big deal](#), as it's very unusual for one arm of Chinese government to criticize another this strongly. It's a good indication that Jinping is serious about turning China's energy economy around from coal to renewables-focused. If so, it's great news for the world fight against the climate crisis!

(Final note: when discussing China, it's important to acknowledge the [truly vile](#) and [arguably genocidal](#) acts the Chinese government is currently perpetrating against the Uighurs in Xinjiang. Two things can be true here: the Chinese government is committing hideous crimes against humanity, and it is still incredibly important for the future of the world that the US and China to work together against the existential common threat of climate change. It's rather like how the US and USSR collaborated on nuclear non-proliferation and test ban treaties. Sometimes, humanity needs the efforts of both "good guys" and "bad guys" to stop planetary threats, like nuclear war and the climate crisis).