



# the weekly anthropocene



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

By Sam Matey, February 24, 2021

**Texas.** As has been widely reported, Texas is experiencing a humanitarian crisis. To review: a highly unusual winter storm leading to [massive power outages in the state's isolated grid](#) on February 15<sup>th</sup>, and directly causing [dozens of deaths](#). The situation quickly spiralled into new threats, with food and water shortages, carbon monoxide poisoning spiking due to burning fuel indoors for warmth, and by Saturday the 20<sup>th</sup>, most power being restored but [half the state under boil-water notices](#) due to burst pipes collapsing local water infrastructure. Counterintuitively, climate scientists are debating the possibility that episodes of unusual cold like this may be partially caused by climate change, as [rising temperatures in the Arctic](#) push the circumpolar jet stream of cold air unusually far south. Early on, an array of right-wing voices absurdly tried to blame this disaster on “frozen wind turbines” and the Green New Deal in an effort to further their anti-renewables agenda. This, despite the facts that wind turbines routinely work in Antarctica when properly maintained, Green New Deal-level renewables policies *have never been passed* in Texas or nationwide, and that [frozen natural gas pipelines](#) and Texas’ [highly deregulated and poorly maintained grid](#) were the actual cause of the problems. Also worthy of note are the efforts some are making to protect other species that have been harmed: a [plethora of volunteers](#) have rescued thousands of sea turtles that were “cold-stunned” near the Texas shoreline. A conservation and rehabilitation group on South Padre Island has taken in [over 4,500 sea turtles](#) since February 14<sup>th</sup>.

**Extreme Conservation: Kenya.** When floodwaters rose to nearly engulf Longicharo Island in Kenya’s Lake Baringo, it trapped a small population of the endangered Rothschild’s giraffe subspecies. They needed to be moved, but it’s unsafe to sedate giraffes. In response, [the local Ruko community built a custom steel barge](#) to carry the giraffes to a nearby wildlife reserve. 3 have been moved, and the work is still in progress!



**Extreme Conservation: Brazil.** In the Brazilian state of Bahia, invasive Africanized “killer bee” honeybees were outcompeting the endangered Lear’s macaw for prime nesting spots in the cliffs of the dry *caatinga* landscape. In response, a team of extraordinarily brave and innovative conservationists used crossbows to shoot the hives with insecticide-carrying bolts, then [rappelled down the cliffs](#) to chip them out by hand. Sure enough, 8 new macaw nests were recorded in the 52 cavities they cleared, compared to none in a similar number of untreated cavities. Great work!



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**Black-Footed Ferrets.** In a great leap forward for conservation, an American endangered species has been cloned for the first time ever. This is but the latest chapter in the epic saga of a species: the black-footed ferret (*Mustela nigripes*) was once common across the Great Plains, hunting prairie dogs and living in their abandoned burrows, until agriculture and hunting destroyed their habitat and sent their population into free fall. They were declared extinct by 1979, but in 1981 a tiny population was found to have survived in Wyoming, providing new hope for the species. The last 18 black-footed ferrets in the world were captured for a breeding program in the late 1980s, but only 7 of them produced offspring.

Though the breeding program was highly successful in the long term, all of the several hundred captive and reintroduced wild black-footed ferrets alive today are descended from those 7 individuals, leading to a concerning shortage of genetic diversity in the

population. Now, modern biotechnology has led to the [birth of a clone](#) of a black-footed ferret that died in the mid-1980s, opening new horizons for the species. Elizabeth Ann (pictured) was born on December 10, 2020, and her existence was announced to the public on February 18, 2021. She was created in a project jointly run by the US Fish and Wildlife Service, commercial cloning company ViaGen, the San Diego Zoo (which has been storing samples of endangered species tissue for years in a “Frozen Zoo” in anticipation of exactly this kind of eventuality), and Revive and Restore, a “genetic rescue” NGO focusing on experimental endangered and extinct species genetics. Elizabeth Ann is genetically identical to Willa, a ferret who died in 1988 and has no natural-born descendants. Notably, one of the scientists working on her birth was Revive & Restore paleogeneticist Ben Novak, a pioneer in the field of extinct and endangered species “genetic rescue,” and someone [who was interviewed by The Weekly Anthropocene](#) in February 2019. If all goes well, Elizabeth Ann’s grandchildren could be released into the wild in 2024 to help enrich their species’ genetic diversity. This is great news for the future of black-footed ferrets-and it’s also a sign that “genetic rescue” conservation is coming of age. The possibilities are extraordinary!

