the weekly anthropocene

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

By Sam Matey, January 20, 2020

United Kingdom. Two teenage boys in Staffordshire, England, are at the forefront of an often overlooked part of rewilding: bringing back absent reptile and amphibian species. Harvey Tweats and Tom Whitehurst, both 17, founded a professionally-linked company, Celtic Reptile & Amphibian, to work to restore long-lost species like moor frogs and European pond turtles (pictured) to Great Britain. For the fascinating full story, see tinyurl.com/UKReptileAmphibianRewilding.

Iowa. On January 11, 2021, the city council of Des Moines voted unanimously to set one of the most ambitious climate goals in the nation. Not only is the Iowan capital city committing to 100% carbon-free electricity by 2035 and net-zero greenhouse gas emissions by 2050, they're committing to 100% carbon-free electricity 24 hours a day, seven days a week-a step beyond previous benchmarks. Most previous city-level renewables goals have been broad-strokes: if a city consumes X megawatts of power per year, they will contract to purchase or generate X megawatts of renewable energy for that year. The thing is, renewable energy tends to be more abundant during the day (though this is changing as energy storage techniques improve), so the city might be exporting some of their extra renewable energy on a sunny, windy afternoon, and still needing some fossil fuel energy to make up the shortfall on a dark, still night. But Des Moines is committing to not just 100% in total over the year, but 100% every hour of every day-no fossil fuels in the system at all! This is a great next step and new standard for renewables planning. For more, see tinyurl.com/DesMoinesEnergy.

Arctic Ocean. A new study published in *Nature Communications* has found disturbingly wide penetration of microplastic fibers, most of them polyester from clothing, in the waters of the Arctic Ocean. The study found microplastics in 96 of 97 samples, taken from across the Arctic-including the sample taken at the North Pole. 92% of the microplastics were fibers, and 73% of those were clothing-type polyester. "We're looking at a dominance of Atlantic inputs, which means sources of textile fibres in the North Atlantic from Europe and North America are likely to be driving the contamination in the Arctic Ocean," said Dr. Peter Ross, leader of the study. "With these polyester fibres, we've essentially created a cloud throughout the world's oceans." These findings, while disturbing, are sadly not that surprising: previous studies have found tiny bits of plastic accumulating at the bottom of the Marianas Trench and raining down on natural parks from the sky. For more, see tinyurl.com/ArcticPlasticFibers.