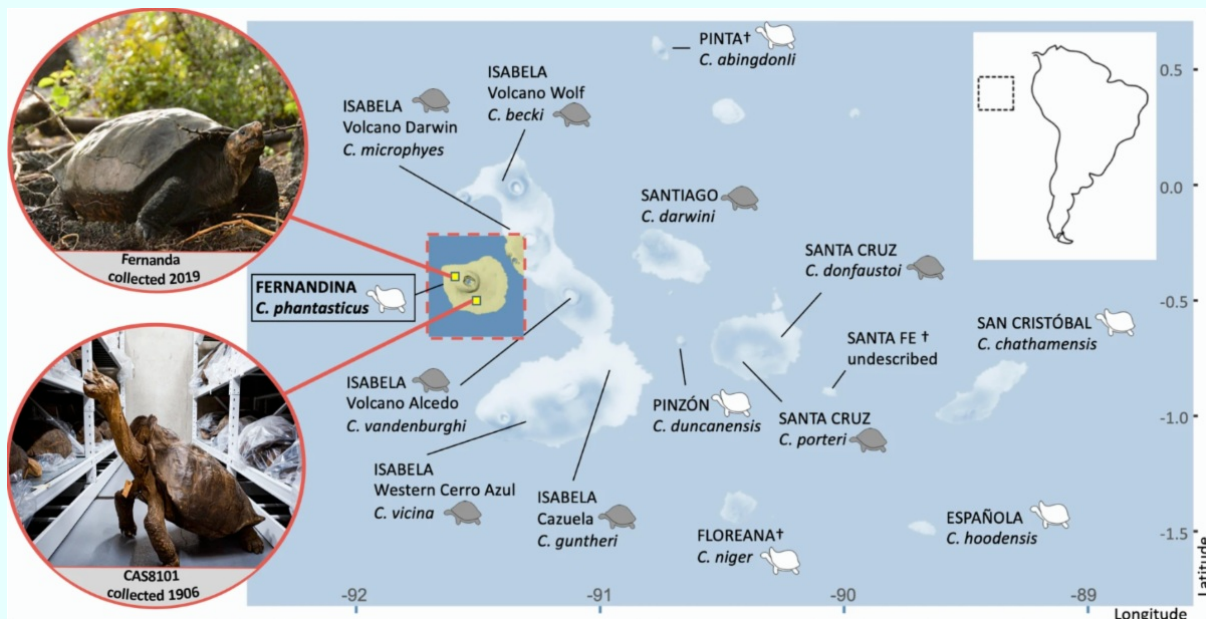




Dispatches From The Wild, Weird World Of Humanity And Its Biosphere

June 8 2022

Galapágos Islands



Among their many other biological wonders (from [Darwin's finches](#) to [marine iguanas](#) to [flightless cormorants](#) to [tropical penguins](#)), Ecuador's Galapágos Islands are home to a [great diversity of giant tortoises](#). (Map above).

Scientists differ on whether to count the different tortoise lineages in the Galapágos as subspecies or distinct species, and on how many of them there are; while some number in the thousands, others have gone extinct or are critically endangered. One, the [Fernandina Island Galápagos tortoise](#) (alternately *Chelonoidis niger phantasticus* or *Chelonoidis phantasticus* depending on whether it's seen as a subspecies or full species) was known only from a single specimen collected by a scientific expedition in 1906 (pictured above, lower right) and was believed extinct.

However, in 2019 a female tortoise dubbed "Fernanda" was found living on Fernandina



Island (pictured). Now, [a new study published in Nature](#) reveals that after comparing her genome to the 1906 specimen, she is indeed a Fernandina Island Galapagos tortoise, and that lineage is distinct from all others. Fernanda is estimated to be 50 years old, but is unusually small for a giant tortoise of her age, possibly indicating that

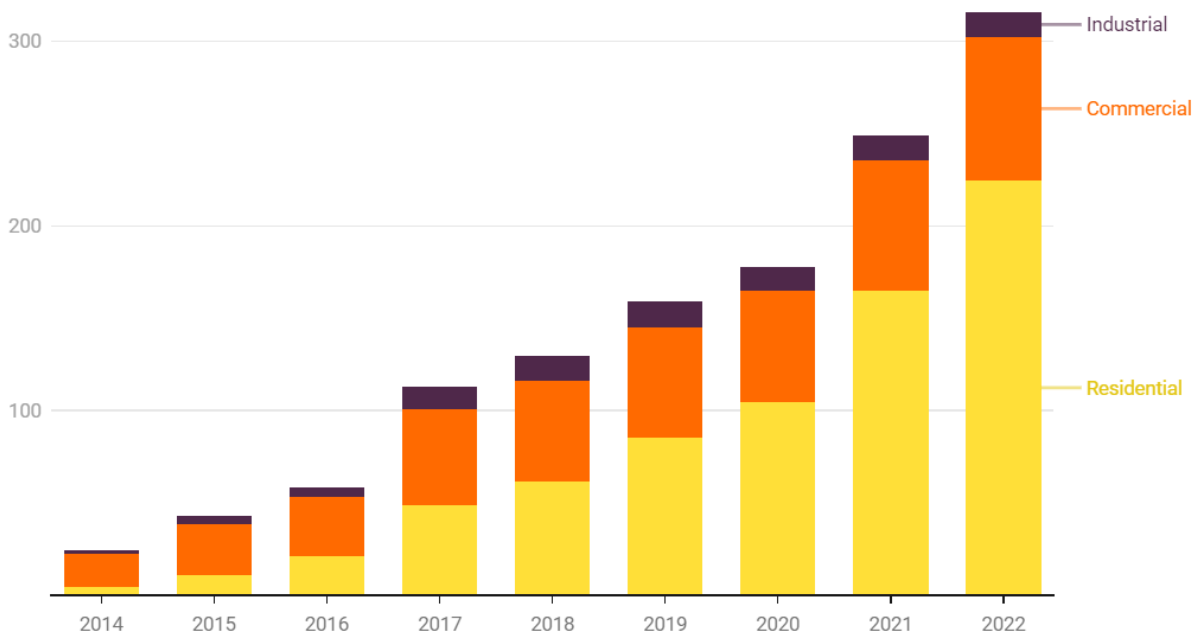
her growth was stunted by limited vegetation on the island. (Fernandina Island [mostly consists of lava fields](#), which accounts for both the scarcity of vegetation and the fact that it's still mostly unexplored). She [has been taken](#) to Galapagos National Park's Giant Tortoise Breeding Center on Santa Cruz Island, and recent expeditions to Fernandina Island found the tracks and scat of at least 2 or 3 other giant tortoises, raising hope that we may eventually be able to run a captive breeding program to save this lineage of tortoises. Great news!



Puerto Rico

Puerto Rico's rooftop solar capacity is soaring

Average annual capacity of total installed solar projects with net metering (MW)



2022 data is for January.

Chart: Canary Media • Source: [U.S. Energy Information Administration](#) • [Embed](#) • [Download image](#)

After decades of government neglect and the more recent devastation of Hurricane Maria in 2017, Puerto Rico is building back better with a massive boom in rooftop solar. In the aftermath of the hurricane and with little to no help from a [notoriously terrible](#) state-owned utility that had filed for bankruptcy just a few months before the disaster, community groups mobilized to take literal power into their own hands.

And it's growing *really fast*. See [the chart above](#) of cumulative Puerto Rico rooftop solar capacity? The 2022 bar covers *January alone*: about as much rooftop solar as existed on the whole island in 2016 was added in that one month, bringing the cumulative total up to more than 315 megawatts. "The transformation is happening at a scale that is very satisfying to see," [said Arturo Massol Deyá](#), executive director of solar community organization Casa Pueblo and professor at the University of Puerto Rico. "We call this an energy insurrection...Even though in California and other states, you have incentives to help people [go solar], in Puerto Rico, we don't. And yet people are doing it here because we're confronting climate change in a hard way, and we're confronting a utility that people can't rely on."

Beyond the people-powered rooftop solar boom, broader trends are reforming Puerto Rican energy as well: the Biden Administration [reached a deal in January 2022](#) to steer \$12 billion in federal recovery funds to modernize Puerto Rico's grid and support a buildout of renewable energy. Only about 5% of the island's electricity currently comes from renewables, but regulators have [approved 884 megawatts' worth](#) of large-scale (non-rooftop) clean energy projects that should bring that share up to 23% by 2024. While many challenges remain, this is some heartening progress for a long-neglected and abused part of America!



Cambodia



CREDIT: WCS Cambodia

The Asian giant softshell turtle (*Pelochelys cantorii*) is critically endangered, with habitat destruction having forced it out of much of its range in Southeast Asian rivers. In recent years, the Wildlife Conservation Society in Cambodia has been running a community-based nest protection program, in which they take the turtle eggs laid in wild nests, incubate them in captivity to keep them safe from predators and the illegal wildlife trade, then release the hatchlings back into the wild. This year, the program has been highly successful, with 982 hatchlings total raised and released into the wild. [A batch of 580 hatchlings \(some of them pictured above\) were released](#) into the Mekong River on May 23rd, "World Turtle Day," at a community event in the Sambour district of Cambodia's Kratié province. [Buddhist monks blessed the baby turtles and local children got to release them into the water.](#) This is a great example of successful Anthropocene conservation: in the modern world, critically endangered species need lots of human friends to survive, and connecting release events to the community like this will help ensure healthy coexistence in the future.

The Weekly Anthropocene

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