



the weekly anthropocene



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

By Sam Matey

Myanmar. The Irrawaddy Dolphin Protected Area is a stretch of the Irrawaddy (or Ayeyarwady) River in Myanmar that is protected as critical habitat for the Irrawaddy dolphin (*Orcaella brevirostris*, pictured). Until recently, it covered 46 miles (74 kilometers) of river. Now, the reserve has expanded to include another 100 kilometers of river as part of the strictly protected area (where harmful activities like dynamite fishing and gold mining are banned). An additional 100 kilometers serves as a new buffer zone. To make sure the new protected area expansion made sense for local communities, Myanmar's Department of Fisheries and the Wildlife Conservation Society (WCS) consulted with 50 villages to determine the optimal level of protection for different parts of the river. These villages have a close relationship with the dolphins. In a fascinating interspecies cultural behavior, Irrawaddy dolphins collaboratively fish with local (human) fishers, herding fish into nets and eating the ones that fall out or are thrown back. For more on this amazing story, see goo.gl/pZTGSR or goo.gl/m2WLaV. Thanks to WCS for the awesome image!



Irrawaddy Dolphins in Myanmar. CREDIT: WCS

Palau. On October 12th, the Pacific island nation of Palau announced that it will soon be home to the world's largest microgrid. The Armonia project, built by Italian energy company ENIG EPS, will consist of 35 MW of solar panel capacity and 45 MWh (megawatt-hours) of energy storage capacity. It should supply at least 45% of Palau's electricity needs. "In the midst of the global energy transition, it is imperative that we address climate mitigation and climate adaption – at the same time" said Palauan President Tommy Remengesau. "As we reduce our carbon footprint, so too should we reduce the vulnerabilities of our energy infrastructure in the face of rising seas and natural disasters. As we generate cleaner energy, it must also be reliable, accessible, and economical for those citizens of the world who live on the front-lines of climate change. Our partnership with ENIG has accelerated Palau's transition toward a renewable and resilient future." Spectacular news! For more, see goo.gl/UXmu8V and goo.gl/fj8CPb.

Mediterranean. The Mediterranean region is home to 49 World Heritage Sites, from the canals of Venice to the ancient Phoenician city of Tyre. Now, a new study published in *Nature Communications* has found that 47 of those 49 sites will be threatened by climate change-caused sea level rise and erosion by the end of the century. The researchers recommended investing in flood-control measures to preserve the sites for the future. For more, see goo.gl/34bDZ7.



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Utah. The largest single organism in the world (by mass) is a 13-million-pound behemoth, stretching across 106 acres of southern Utah's Fishlake National Forest. Pando (Latin for "I spread") is an ancient quaking aspen (*Populus tremuloides*) consisting of approximately 47,000 aboveground stems, all genetically identical, that share the same massive underground root system. Pando is genetically male and estimated to be at least 80,000 years old (as a whole: individual trees are much younger), although its exact age is undetermined.



Now, a new study published in *PLOS One* discusses the first complete analysis of Pando's well-being. Researchers from Utah State University found that the majority of Pando's trees appear to be considerably aged, and that forest regeneration is low, with few new saplings managing to grow to adulthood. The blame for this is thought to lie with an uncontrolled mule deer population that eats the young saplings, caused by the local extermination of their major predators, such as wolves and grizzlies, by human hunters in the early 20th century. The Forest Service has attempted to fence off parts of Pando from the deer, but the researchers found that the deer are managing to jump the fence, making the efforts moot. The researchers recommend investing in better fencing and wildlife management in order to protect the ancient titan. For more, see [goo.gl/v5y7h9](https://doi.org/10.1371/journal.pone.0215441) and [goo.gl/AvqFG5](https://doi.org/10.1371/journal.pone.0215441).

Mozambique. In a fascinating new discovery, a real-life "lost world" has been revealed on the top of an isolated mountain in Mozambique. Mount Lico (pictured) stands alone in the middle of agricultural land, bounded by 410-foot cliffs. Recently, conservationist Dr. Julian Bayliss spotted a patch of rainforest on the summit in Google Earth. Intrigued, Dr. Bayliss visited the mountain and surveyed the area with a drone.



He then assembled a team of scientists and professional rock climbers, and in May, they climbed the cliffs and explored Lico's forest. They found a completely undisturbed ecosystem, with a wealth of potential new species ranging from a butterfly to a mouse. The only sign that any humans had ever visited was the placement of mysterious ancient pots, thought to be part of a religious ritual. Mount Lico may be one of the most pristine forests in the world, and its scientific potential is astounding. For more on this incredible adventure, see [goo.gl/iSrv5V](https://doi.org/10.1371/journal.pone.0215441) and [goo.gl/KmPUa2](https://doi.org/10.1371/journal.pone.0215441).