

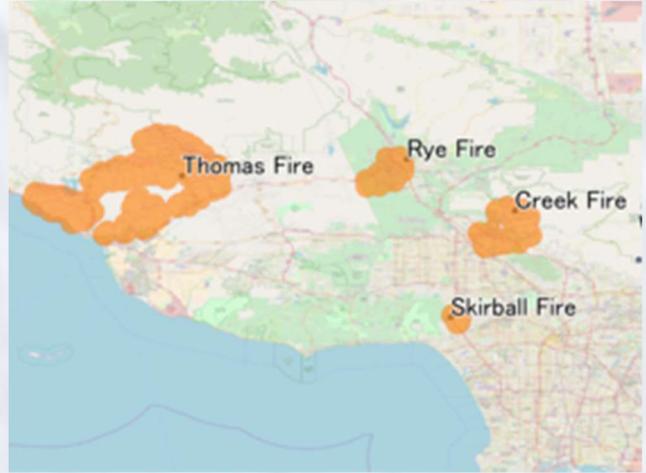


the weekly anthropocene

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

by Sam Matey

California. Southern California is being ravaged by wildfires. Together, the six major fires (four of which are pictured: the other two are on the other side of Los Angeles in the bottom right of the map) are larger than the area of New York City and Boston combined. According to CNN, the Thomas Fire alone has destroyed over 790 structures and has so far cost over \$34 million to contain. Firefighters from six states have come in to help California. Due in part to their heroic efforts, the death toll so far stands at only one: Virginia Pesola, 70, of Santa Paula. 93, 243 people are under mandatory evacuation orders. In an



interview with CBS News, California Governor Jerry Brown described the wildfires as a consequence of climate change, stating that “Nature is not a political game. Nature is the ground on which we stand, it's the air which we breathe. The truth of the case is that there's too much carbon being emitted, that heat-trapping gases are building up, the planet is warming and all hell is breaking loose.”

Isle Royale, Michigan. Isle Royale, an island national park in Lake Superior, has long functioned as a natural laboratory for ecosystem studies. Wolves colonized the island in 1949, and their effects on the local moose population have been studied for 59 years, the world's longest predator-prey study. The wolf population peaked at around 50 in 1980. Now, the island may be down to one lone wolf. Climate change has prevented the formation of ice bridges between the island and the mainland, leading to a lack of genetic diversity and inbreeding. The one remaining female is the daughter and half-sibling of another male, who until recently was the other wolf on the island but has not been seen recently. The National Park Service is planning to reintroduce 20 to 30 wolves to the island to restore the population, a project that is currently in the public comments stage. More news as it develops.

Papua New Guinea. Papua New Guinea's government has just designated the Managalas Conservation Area, the country's largest protected area. The Managalas Plateau is home to amazing species like tree kangaroos and the world's largest butterfly, the Queen Alexandra Birdwing. The conservation area protects about 3,600 square kilometers of it, an area about 40% of the size of Puerto Rico. The MCA will ban large-scale logging and agriculture, while allowing the local indigenous peoples to continue their traditional sustainable land use practices. Great news!

Sumatra. The Tapanuli orangutan, the most recently discovered species of great ape in the world, has been officially designated as Critically Endangered. Only about 800 individuals are left.



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France. In June, French President Emmanuel Macron (pictured) invited climate scientists to emigrate to France, setting aside millions of euros in grants as part of his “Make Our Planet Great Again” initiative. Soon, 255 researchers applied. Now, the initiative has chosen its first grant recipients: 18 distinguished scientists in climate-related fields, 13 of whom were previously working in the US. One winner, Dr. Camille Parmesan, originally from Texas, received a 1.5 million euro grant to study how climate-change induced animal movements could bring diseases into Europe. She described the initiative as “absolutely fabulous, and a very appropriate response to Trump pulling out of the Paris Accords.” Another winner, Cornell geology professor Louis Derry, pointed out that “I think it’s hard to find to many downsides to living in Paris for a little while.” In a political environment where basic scientific facts are up for debate, America’s loss is France’s—and the world’s—gain.



Brazil (1). Brazilian soldiers and indigenous affairs agents have destroyed illegal mining platforms along the Jandiatuba River, as part of a crackdown on threats to isolated tribes in the remote region. They then investigated reports that the miners had massacred members of the uncontacted tribe known as the Flecheiros, or Arrow People. It is unclear whether a massacre took place or the claims were mere drunken boasting. For the whole fascinating story, type in goo.gl/UZVPxq.

Brazil (2). A new study in the Brazilian Pantanal, a forested wetland similar to the Florida Everglades, has found that large fish are critical to the health of such ecosystems. PhD student Raul Costa-Pereira led the study, which found that big fish spread the seeds of plants more effectively than little fish. This is because fish with big mouths are more likely to swallow the seeds whole, eventually release them into new areas when they defecate.

Brazil (3). Brazilian biologist Flávia Miranda has discovered that the silky anteater (*Cyclopes didactylus*, pictured) is in fact four to seven different species. After 10 expeditions to Brazil and Suriname, she and her team collected DNA samples from 33 different wild anteaters, as well as anatomical data from 280 museum specimens. They concluded that there are at least four and possibly up to seven silky anteater species, based on differences in fur coloration, skull size, and DNA. This had not been known before because the silky anteater is tree-dwelling, nocturnal, and only 20 inches long, making them very hard to find, let alone study. Ms. Miranda and her team are now determining the conservation status of and threats to the newly differentiated species.

