



# the weekly anthropocene

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



By Sam Matey

**Nepal.** A massive survey conducted in Nepal from 2017 through 2018 has found that the small Himalayan nation is home to 235 tigers, up from 198 in 2014 and 121 in 2009. These highly encouraging numbers put Nepal on track to become the first nation to double its tiger population since the “Tx2” goal was adopted in 2010. (The Tx2 goal is a commitment by the 13 countries home to wild tigers to double the population of tigers by 2022). Dr. John Goodrich, senior director of the Panthera organization’s tiger program, said “Tiger recovery this rapid is almost unheard of, and Nepal’s outstanding commitment to protecting its wildlife, despite having among the highest human population densities in the world, is an achievement to be celebrated and modeled by other Asian nations fighting for the survival of their heritage and this extraordinary species.” (Thanks to Mongabay for the awesome image of a tiger in Nepal’s Bardia National Park, above). For more on this epic story, check out [goo.gl/sS9yMu](http://goo.gl/sS9yMu). Great news!



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**Brazil.** A dazzlingly beautiful new species of fish has been discovered off the coast of Brazil. The Aphrodite anthias (*Tosanoides aphrodite*, pictured) was discovered by divers around the Brazilian archipelago of Saint Paul’s Rocks. It is the eighth known fish species to occur only around Saint Paul’s Rocks, and was named after the Greek goddess due to its incredible beauty. For more, check out [goo.gl/SMyLwk](http://goo.gl/SMyLwk).



**Indonesia.** In 1928, world-famed biologist Ernst Mayr discovered the Wondiwol tree kangaroo (*Dendrolagus mayri*). He was exploring the Wondiwol Mountains, on the Indonesian side of the great island of New Guinea, a region so remote that the specimen he described remained the only Wondiwol tree kangaroo known to science for decades. Then, in 2018, an English amateur botanist named Michael Smith led an expedition to the Wondiwol Mountains to search for the elusive tree kangaroo. Amazingly, they found it (pictured, right) and it appears to be quite common within its limited range. “All this just shows that you can find interesting things if you simply go and look,” said Mr. Smith. Great news! For more, see [goo.gl/wHTAHP](http://goo.gl/wHTAHP).





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**Science Spotlight #5: The Classification of Life.** Earth is an amazingly diverse planet, with millions of species of multicellular life-forms (no one knows exactly how many, even today), and thousands of different human languages. These are sources of great wonder and complexity that enrich our world, but by the 1700s, it was posing a problem for scientists. The nascent scientific community was scattered across continents and spoke dozens of different languages. Even if good translators were available, the spread of knowledge was hindered by the lack of common terminology, especially when it came to living organisms. The same plant or animal had different names in different languages, dialects, and regions. In Europe, Latin provided a common language for the educated elite, but even Latin names for species were generally long, confusing, and varied from scientist to scientist. Into this stepped Carl Linne (or Carolus Linnaeus: he preferred the Latinized version of his name). This Swedish botanist produced the world's first commonly recognized classification system: binomial nomenclature. He described four major "levels" of organism subdivisions: the kingdom, the class, the order, the genus, and the species. (Since Linnaeus, three more levels have been added: the phylum and the family in the 1800s, and the domain in the late 20<sup>th</sup> century). Each subdivision contained organisms that shared certain common physical characteristics. (Today, these subdivisions are often defined by shared genes).

For example, let us take an eastern gray squirrel (*Sciurus carolinensis*). How would we classify it? It has more than one cell (unlike, say, a bacterium), so by default it is in the domain Eukarya (which includes all multi-cellular life, from fungi to ferrets). It moves around quite a lot and doesn't produce its own energy (i.e. needs to eat other life-forms), so it's in the kingdom Animalia, the animals. It has a backbone, so it's in the phylum Chordata (subphylum Vertebrata). It's furry and gives birth to live young, so it's in the class Mammalia, the mammals. It has a pair of continuously growing front teeth in its upper and lower jaws, so it's in the order Rodentia, the rodents. It has a bushy tail and a skull with certain characteristics, so it's in the family Sciuridae, the squirrels (a family that also includes woodchucks and chipmunks). It's a tree squirrel from a group that lives in the Americas and temperate Asia, so it's in the genus *Sciurus* (note that the genus name is italicized). Finally, it's a particular type of *Sciurus* squirrel native to eastern North America that only breeds with only squirrels of this type, making it a species of its own. The first described scientific specimen for this species came from the Carolinas, giving it the species name *carolinensis*. Voila—the world-recognized Linnaean binomial name (or "scientific name") for the eastern gray squirrel is *Sciurus carolinensis*.

Linnaeus' system is still in use today, providing a common base of understanding to all scientists studying life around the world. It's even become an art form of sorts: binomial nomenclature requires names to be in the Latinized genus-species format, but doesn't require the names to actually come from Latin. This has led to the naming of species such as *Dracorex hogwartsia* (a dinosaur named after Harry Potter's alma mater) and *Spongiforma squarepantsii* (a mushroom)!