

Mass Extinction: World on track to lose two-thirds of wild animals by 2020, major report warns

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Living Planet Index shows vertebrate populations are set to decline by 67% on 1970 levels unless urgent action is taken to reduce humanity's impact.

The number of wild animals living on Earth is set to fall by two-thirds by 2020, according to a new report [1], part of a mass extinction that is destroying the natural world upon which humanity depends.

The analysis, the most comprehensive to date, indicates that animal populations plummeted by 58% between 1970 and 2012, with losses on track to reach 67% by 2020. Researchers from WWF and the Zoological Society of London compiled the report from scientific data and found that the destruction of wild habitats, hunting and pollution were to blame.

The creatures being lost range from mountains to forests to rivers and the seas and include well-known endangered species such as elephants and gorillas and lesser known creatures such as vultures and salamanders.

The collapse of wildlife is, with climate change, the most striking sign of the Anthropocene, a proposed new geological era in which humans dominate the planet. "We are no longer a small world on a big planet. We are now a big world on a small planet, where we have reached a saturation point," said Prof Johan Rockström, executive director of the Stockholm Resilience Centre, in a foreword for the report.

Marco Lambertini, director general of WWF, said: "The richness and diversity of life on Earth is fundamental to the complex life systems that underpin it. Life supports life itself and we are part of the same equation. Lose biodiversity and the natural world and the life support systems, as we know them today, will collapse."

He said humanity was completely dependent on nature for clean air and water, food and materials, as well as inspiration and happiness.

The report analysed the changing abundance of more than 14,000 monitored populations of the 3,700 vertebrate species for which good data is available. This produced a measure akin to a stock market index that indicates the state of the world's 64,000 animal species and is used by scientists to measure the progress of conservation efforts [2].

The biggest cause of tumbling animal numbers is the destruction of wild areas for farming and logging: the majority of the Earth's land area has now been impacted by humans, with just 15% protected for nature. Poaching and exploitation for food is another major factor, due to unsustainable fishing and hunting: more than 300 mammal species are being eaten into extinction,

according to recent research.

Pollution is also a significant problem with, for example, killer whales and dolphins in European seas being seriously harmed by long-lived industrial pollutants. Vultures in south-east Asia have been decimated over the last 20 years, dying after eating the carcasses of cattle dosed with an anti-inflammatory drug. Amphibians have suffered one of the greatest declines of all animals due to a fungal disease thought to be spread around the world by the trade in frogs and newts.

Rivers and lakes are the hardest hit habitats, with animals populations down by 81% since 1970, due to excessive water extraction, pollution and dams. All the pressures are magnified by global warming, which shifts the ranges in which animals are able to live, said WWF's director of science, Mike Barrett.

Some researchers have reservations about the report's approach, which summarises many different studies into a headline number. "It is broadly right, but the whole is less than the sum of the parts," said Prof Stuart Pimm, at Duke University in the US, adding that looking at particular groups, such as birds, is more precise.

The report warns that losses of wildlife will impact on people and could even provoke conflicts: "Increased human pressure threatens the natural resources that humanity depends upon, increasing the risk of water and food insecurity and competition over natural resources."

However, some species are starting to recover, suggesting swift action could tackle the crisis. Tiger numbers are thought to be increasing and the giant panda has recently been removed from the list of endangered species.

In Europe, protection of the habitat of the Eurasian lynx and controls on hunting have seen its population rise fivefold since the 1960s. A recent global wildlife summit also introduced new protection for pangolins, the world's most trafficked mammals, and rosewoods, the most trafficked wild product of all.

But stemming the overall losses of animals and habitats requires systemic change in how society consumes resources, said Barrett. People can choose to eat less meat, which is often fed on grain grown on deforested land, and businesses should ensure their supply chains, such as for timber, are sustainable, he said.

"You'd like to think that was a no-brainer in that if a business is consuming the raw materials for its products in a way that is not sustainable, then inevitably it will eventually put itself out of business," Barrett said. Politicians must also ensure all their policies - not just environmental ones - are sustainable, he added.

"The report is certainly a pretty shocking snapshot of where we are," said Barrett. "My hope though is that we don't throw our hands up in despair - there is no time for despair, we have to crack on and act. I do remain convinced we can find our sustainable course through the Anthropocene, but the will has to be there to do it."

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<https://www.theguardian.com/environment/2016/oct/27/world-on-track-to-lose-two-thirds-of-wild-animals-by-2020-major-report-warns>

World's mammals being eaten into extinction, report warns

First global assessment finds 301 species are primarily at risk from human hunting for the bushmeat trade.

Hundreds of mammal species - from chimpanzees to hippos to bats - are being eaten into extinction by people, according to the first global assessment of the impact of human hunting.

Bushmeat has long been a traditional source of food for many rural people, but as roads have been driven into remote areas, large-scale commercial hunting is leaving forests and other habitats devoid of wildlife.

The scientists behind the new analysis warned that, without action, the wiping out of these species could lead to the collapse of the food security of hundreds of millions of people reliant on bushmeat for survival.

The work comes against the backdrop of the natural world undergoing the greatest mass extinction since a giant meteorite strike wiped out the dinosaurs 65m years ago, with species vanishing far more rapidly than the long term rate, driven by the destruction and invasion of wild areas by humans and their livestock and hunting [\[3\]](#).

The researchers, whose study is published in the journal Royal Society Open Science [\[4\]](#), used the International Union for Conservation of Nature's (IUCN) red list to identify the endangered land mammals that are primarily at risk from hunting for food. They found 301 such species, representing 7% of all the land mammals assessed by IUCN and about a quarter of all endangered mammals. Other mammals are threatened by habitat loss or hunting for other reasons, such as elephants which are poached for their ivory.

The 301 species include 168 primates, such as the lowland gorilla and mandrill, 73 hoofed animals, such as the wild yak and bactrian camel, 27 bats, such as the golden-capped fruit bat and the black-bearded flying fox, and 12 carnivores, such as the clouded leopard and several bear species.

There are also 26 marsupials threatened by meat hunting, including the grizzled tree kangaroo, and 21 rodent species, such as the Sulawesi giant squirrel and the alpine woolly rat. All eight species of pangolins - scaly anteaters - are threatened and these species won top-level protection at the recent summit of the Convention on the International Trade in Endangered Species [\[5\]](#).

"There are a plenty of bad things affecting wildlife around the world and habitat loss and degradation are clearly at the forefront, but among the other things is the seemingly colossal impact of bushmeat hunting," said Prof David Macdonald, at the University of Oxford and part of the international team that produced the research. "You might rejoice at having some habitat remaining, say a pristine forest, but if it is hunted out to become an empty larder, it is a pyrrhic victory."

He said: "The number of hunters involved has gone up, and the penetration of road networks into the remotest places is such that there is no refuge left. So it becomes commercially possible to make a trade out of something that was once just a rabbit for the pot. In places like Cameroon, where I have worked, you see flotillas of taxis early in the morning going out to very remote areas and being

loaded up with the [bushmeat] catch and taken back to towns.”

The scale of the global bushmeat trade is difficult to measure but, in 2011, the Center for International Forestry Research estimated 6m tonnes of animals were taken each year [6]. Another estimate indicates 89,000 tonnes of meat, worth \$200m, is taken every year from the Brazilian Amazon. The meat is also smuggled abroad, with 260 tonnes of wild meat per year estimated to be hidden in personal baggage at just one European airport, Paris Charles de Gaulle.

Bushmeat is often caught using long lines of snares, which trap animals indiscriminately. Macdonald, who works with the lions in Hwange park in Zimbabwe where Cecil the lion lived [7], has seen lions killed by snares set for game species.

The extinction of the threatened mammals would also irrevocably upset the balance of many ecosystems. For example, they include predators that keep rodents in check, species vital for dispersing seeds and others such as bats that pollinate flowers.

“With this [hunting] trend, the loss of mammal populations thus affects the livelihoods and food security for hundreds of millions of rural people across the globe,” the scientists warned.

Macdonald said: “You have got to distinguish between those people who have no choice but to eat bushmeat, and what is to be done for them, and people now living in towns who have a nostalgic memory for the time when they lived on bushmeat, but no longer need to, so it is a luxury.”

The researchers said solving the problem of over-hunting will require greater legal protection for the species, empowering local communities to benefit from wildlife conservation, providing alternative foods and better education and family planning to curb population growth.

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<https://www.theguardian.com/environment/2016/oct/19/worlds-mammals-being-eaten-into-extinction-report-warns>

Footnotes

- [1] <http://www.livingplanetindex.org/home/index>
- [2] <http://science.sciencemag.org/content/346/6206/241.full>
- [3] ESSF (article 39358), [Humans creating sixth great extinction of animal species, say scientists - “A rate far higher than in the last five mass extinctions”](#).
- [4] <http://rsos.royalsocietypublishing.org/content/3/10/160498>
- [5] <https://www.theguardian.com/environment/2016/sep/28/pangolins-thrown-a-lifeline-at-global-wildlife-summit-with-total-trade-ban>

[6] http://www.cifor.org/publications/pdf_files/articles/ANasi1101.pdf

[7] <https://www.theguardian.com/environment/2016/jun/28/cecil-the-lions-legacy-death-brings-new-hope-for-his-grandcubs>