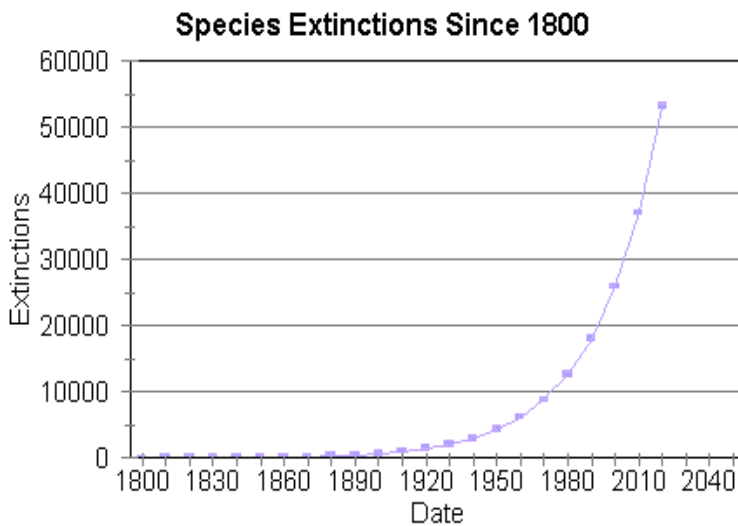




the 'nature problem'



Source: Edward O. Wilson via the Whole Systems Foundation.

what is it?

We're not 'killing the planet'. It's the ecology of our planet that is being damaged – nature, in other words. And as nature / ecology is what keeps us alive and healthy, if we damage nature we damage ourselves. How are we damaging it? Global warming is the most widely-known way. Then there's soil erosion: for a species that requires healthy soil to grow most of its food, it's not wise to continue to erode soil at 10-40 times the natural rate. There's also the release of plastics and nanomaterials; pollution; ocean acidification; the introduction of invasive species; water depletion and the direct removal of natural habitat for agriculture, cities, roads etc. The cumulative effect is biodiversity loss. Are you old enough to remember driving on a summer evening in the 20th century, and having to keep stopping to wipe off the bugs that had splatted on your windscreen? That doesn't happen now. A recent study covering 63 nature reserves in Germany over 27 years shows an 82% drop in flying insects in mid-summer. This has been labeled 'insectageddon', but it's not just insects.

The rate of extinction of species is many times the pre-human rate. Large animals are often preserved in zoos, so it's mainly creepy-crawlies that are lost - the soil creators, pollinators and seed dispersers that form the bottom of the food chain on which all life depends.

There have been 5 mass extinction events, including the one that did for the dinosaurs 65 million years ago (asteroid impact), and the biggest of all, 250 million years ago (volcanic activity), which led to the extinction of c. 95% of all species. We're in the 6th mass extinction event now. But the problem may be not so much about

extinctions, but about the extent of populations of those species. If a species is reduced to a few reserves, or even just zoos, that creature doesn't play a role in global ecology any more. So if pollinators don't become extinct, but fall in numbers so they don't do much in terms of pollination globally, that causes the same problems as if they were extinct. For example, the Zoological Society of London tells us there are now around 5% the number of eels in the UK as in the 1980s, with similar falls all over Europe. So this species can't play the same role in ecology that it used to. The declines in populations don't show up in the extinction figures, and result in the 'nature problem' being underestimated.

In 2017 an article appeared in the Proceedings of the National Academy of Sciences of the United States of America entitled: Biological annihilation via the ongoing sixth mass extinction signaled by vertebrate population losses and declines. This is an establishment, sober, respected organisation, founded in 1836, whose output is triple peer-reviewed. The researchers involved clearly chose those first two words to grab attention. See Lowimpact.org/the-nature-problem for more peer-reviewed sources. Peer-review means that independent experts in the same field have checked the methods, analysis of data and conclusions before they're published. It's not perfect, but there's nothing better.

what are the consequences?

Ecology is an interconnected web of life. When nature is so damaged that it can't reproduce itself any more, there's a point when feedback loops produce what ecologists call a 'cascade effect' – and we have runaway species loss with no way of stopping it. Ecology delivers the things we need to survive – clean air, fertile soil, fisheries, pollination, pest control, etc. If these 'services' start to break down in a world where the human population is expanding, international relations could easily degenerate into resource wars between countries possessing nuclear weapons. A radioactive world with ecology falling away from us could indeed be fatal for our species.

Empires have fallen because of environmental damage, although the consequences were local. Human societies were unaffected elsewhere. Ecological damage is now global, and the case of collapse, there will be nowhere for humans to recover and to replenish.



what can I do?

Some believe that it's already too late to avoid collapse. If so, then maybe our actions can push back that collapse so that we can put in place local, resilient infrastructure and gain relevant skills that will mean more of us will survive. As an individual, you can adopt behaviours, technologies and facilities that will reduce your contribution to the problem, help develop sustainable alternatives, and gain skills that might save your life or, in the meantime, help you to change to a career that doesn't help prop up the corporate economy. We've compiled over 200 of these topics - see lowimpact.org.

But there's only so much we can do via individuals lifestyle change – bearing in mind that the vast majority of humanity don't know or care what's happening. Conservation groups can help, but ultimately, we're not going to be able to conserve nature with an economic system that has to grow forever. We believe that a new system is required to prevent biodiversity loss. That new system is already being built. You can help it to grow – see lowimpact.org/low-impact-economy.

Some ('ecomodernists') will tell you not to worry – that human ingenuity and new technologies will solve these problems (ignoring the fact that those were the very things that caused the problems in the first place). This is music to the ears of those who are benefitting from this system. Some of these people are genuine, and some have been paid to say those things. But their approach is extremely irresponsible. There are other people who don't think it's particularly important if humans become extinct, or even welcome it, because, well, we'll have deserved it, and it will allow biodiversity to recover. However, humans represent the universe becoming aware of itself – at least in this little corner of it. What a shame to snuff out that growing awareness because of a bad system, rather than bad people.

Many feel that we shouldn't mention this, or at least that we should add copious amounts of sweetener, rather than being honest about the scale of the problem. The arguments go something like this: if you scare people, you paralyse them so that they do nothing, or you make them spend and consume more, to shore up their defences against the coming disaster (therefore making the problem worse); frightening

people with the truth about ecology is self-defeating. It will dilute people's will to do anything about it – they will become fatalistic.

But would people be more or less likely to man the lifeboats if shown clearly that a collision with an iceberg is imminent? Imminent disaster tends to be motivating, until it becomes clear that nothing is going to work – and we haven't got to that point yet. Another important thing to remember is that the majority will never be motivated. This message is for the minority that will – to persuade them to stop tinkering, and to start turning the steering wheel. And for goodness sake, to take their foot off the accelerator. Anyone who thinks that we can avoid 'biological annihilation' and still chase perpetual economic growth is not part of the solution. We should talk about this because if we don't, the response will be inadequate. And that's exactly what's happening. If you could see that someone's house was on fire, you'd warn them, wouldn't you?

resources

- see lowimpact.org/the-nature-problem for more info, links & books, including:
- Elizabeth Kolbert, *the Sixth Extinction*
- David Fleming, *Surviving the Future*
- Edward O Wilson, *the Diversity of Life*
- pnas.org/content/114/30/E6089 – biological annihilation via the ongoing 6th mass extinction
- en.wikipedia.org/wiki/Holocene_extinction – the holocene (current) mass extinction
- cbd.int/gbo3 – global biodiversity outlook



Only 400 Siberian tigers are left in the wild; so although not extinct, like many creatures, they no longer play any meaningful role in the ecology of their natural range.

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