

Review: WWF report, biodiversity and the age of extinction

Friday 23 October 2015, by [THORNETT Alan](#) (Date first published: 13 October 2014).

A review of *The Living Planet Report 2014* published by the World Wildlife Fund (WWF).

This impressive report from the WWF is yet another wake-up-call regarding the catastrophic situation facing the biodiversity of the planet. The report shows that the biosphere is a fragile and intricately balanced structure that is being destroyed at a rate knots. Nor is it just iconic species such as the orangutan and the panda that are at risk—though the significance of these should not be underestimated—but a huge range of less high profile creatures on which the whole ecosystem depends, and on which, in the end, we depend as human beings.

Three quarters of the world food production, for example, relies on bees (that are in deep trouble) and other pollinators, such as hover flies. Bats (also in steep decline) control diseases through their diet of mosquitoes and other insects that act as disease agencies. Earth worms, that are under threat from pollution and pesticides, transport vital nutrients into the soil and irrigate it in the process.

The report's Living Planet Index (LPI), which monitors the decline of many thousands of vertebrate species (over both tropical and temperate regions) paints an alarming picture showing that these species—mammals, birds, reptiles, amphibians and fish across the globe—have declined by an average by 52% between 1970 and 2010. This is a much steeper decline than previously recorded, and is based on new and more accurate methods of analysis.

The decline is steepest in the tropical regions. The report's tropical LPI records a 56% reduction in 3,811 populations covering 1,638 species over that period. Latin America shows a more dramatic decline with a fall of 83%. In the temperate regions, the report's temperate LPI shows a 36% decline in 6,569 populations covering 1,606 species.

The steepest declines of all are in the tropics and the Southern Ocean. There the species in decline include marine turtles, many sharks, and large migratory seabirds like the wandering albatross.

The LPI for freshwater species shows an average decline of 76%. The main threats to freshwater species are habitat loss and fragmentation, pollution and invasive species, changes to water levels and freshwater systems connectivity—for example through irrigation and hydropower dams." These trends show no sign what-so-ever of slowing down.

The causes of all this are not difficult to find. It is habitat loss and degradation through human activity. It is climate change and the extreme weather events that go with it. It is human land use—particularly for agriculture, urban development and energy production. It is the pollution of the environment—most catastrophically the acidification of the oceans. It is the over-exploitation of the environment through hunting and fishing. It is also diseases and invasive species transported by human activity. The recent discovery of the small but massively prolific and potentially disastrous quagga mussel near Heathrow is a good example.

More generally it is the growing pressure from the global human population, which is increasing by 80 million a year with all the demands this makes on a finite planet and its fragile ecosystem. The current 7bn population is probably already unsustainable and will soon be 8bn. This is even more problematic given the ever-more-destructive capitalist mode of production.

The report argues that modern humans have benefited hugely from the stable environmental conditions that have prevailed for the past 10,000 years—the period known as the Holocene. This allowed for settled human communities that were able to evolve and eventually develop into the modern societies of today.

With the industrial revolution, however, which provided the basis for the rapid rise of the human population from 500 million in 1750 to seven billion today this situation has been transformed.

Life on this planet, the report argues: “depends on a number of interconnected environmental processes, operating on large temporal and spatial scales, known as Earth system services . Ocean currents bring nutrients from the deep to support productive marine ecosystems. Glaciers act as giant water-storage facilities, while glacial action creates fertile soils. Carbon dioxide in the atmosphere is dissolved and stored in the oceans, helping to keep the climate stable. Nitrogen and phosphorous cycles provide essential nutrients for plants to grow, chemical reactions in the atmosphere form protective ozone, and large polar ice sheets help to regulate global temperatures.” (Page 65)

The report argues, however, that with the disruption of these interrelated Earth Systems that has occurred since the industrial revolution, and the increasing use of fossil fuels in particular, the period of the Holocene is over. Advancements in Earth systems science suggests that the world has entered a new geological epoch—the epoch of the Anthropocene— an epoch defined by the impact of human activity on the biosphere of the planet. This is widely known as the sixth extinction. The term ‘Anthropocene’ has not yet been officially recognised by the scientific community, but the Report suggests, as does Elizabeth Kolbert in her valuable book *The Sixth Extinction – an Unnatural History* by published earlier this year that its recognition is logical and likely. [Thornett’s review of Kolbert’s book is available on ESSF (article 36128), [Book Review: Elizabeth Kolbert and the next mass extinction – On the crisis of global biodiversity.](#)]

Despite the compelling case advanced in the WWF Report—and indeed in Kolbert’s book—the biodiversity crisis is not an issue that many on the left choose to address, even some of those committed to defending the environment.

It is important that this dramatic change, along with the biodiversity crisis, is brought into the centre of the debate. The core of our approach to the ecological crisis should be to see human beings as a part of nature and not in conflict with it or indeed being the mass destroyers of other species on which we ourselves ultimately depend.

This might be because it is difficult to address the issue of the rising global human population—which is clearly the overarching problem and is something of a taboo subject on the left. It is true that this raises the issue of the rising human population and its impact on the biosphere that the left finds difficult to discuss, but these are huge issues that in the end cannot be avoided.

Alan Thornett

The Living Planet Report 2014 is available here.:

http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/

P.S.

* "THE AGE OF EXTINCTION":

<http://socialistresistance.org/6837/the-age-of-extinction>

* Alan Thornett is a member of the Bureau of the Fourth International and a long-time leading member of the British Section of the Fourth International, Socialist Resistance. His most recent book, "Militant Years: Car Workers' Struggles in Britain in the 60s and 70s", was published in 2010.