

Biodiversity Stripes – A Journey from Green to Grey

Posted on [August 10, 2022](#) by [Miles](#)

The [climate stripes](#) were created by Professor Ed Hawkins at the University of Reading in 2018. A simple series of vertical coloured bars, showing the heating of the planet over 200 years. The stripes have had a huge impact. In the launch week, over a million people downloaded graphics from the website and they have appeared and been shared widely. The climate stripes have done a great job increasing awareness of climate change.



Global Climate Stripes, 1850-2021. Data Source UK Met Office [CC BY 4.0](#)

Climate change has been found to get up to [eight times](#) more coverage than biodiversity loss. Yet only by addressing both the warming climate and loss of wildlife do we stand a chance of passing on a stable planet for future generations. This imbalance is odd as many of us claim to love nature and wildlife. And while we may talk about the weather, few of us love the climate. The decline of nature provides a sure sign that our relationship with nature is failing.

So, I've been hoping to see a biodiversity version of the stripes for a couple of years. So recently, after only finding a pair of biodiversity striped socks online, and encouraged by Ed's support, I set out to find some suitable historical data and create some biodiversity stripes.

I was well aware of the [Living Planet Report](#) which tells us that the population of mammals, birds, fish, amphibians and reptiles has seen an average drop of 68% globally since 1970, so it didn't take me long to find the [Living Planet Index](#). The global data includes over 20,000 populations of over 4000 species.

Given it's a single number representing many things over the whole globe, the stark decline since 1970 is quite smooth – which means 'unstripey' – the colour changes would be too subtle for stripes to emerge. So, to capture the trend while providing stripes I simply created a random point between the high and low confidence intervals for each year. As for the colours, the decline of wildlife is a loss of vibrancy and colour, the green becomes grey. So, the global stripes start green in 1970 and turn grey as we enter the 2000s.

Global Bio Stripes – Data: Living Planet Index

<http://stats.livingplanetindex.org/>

I was also interested with wildlife that could be combined with the stripes. After considering caterpillars and worms, I decided that the colourful natural world is represented nicely by the Toucan. Most of us have never seen a toucan in the wild, but we're aware of them, their large vibrant beaks bringing colour to the world. To the Central and Southern Americas to be more precise. And here is a toucan representing the living planet index data for that region. This dataset includes 1,159 populations of 761 terrestrial and freshwater species.

Latin Bio Stripes – Data: Living Planet Index

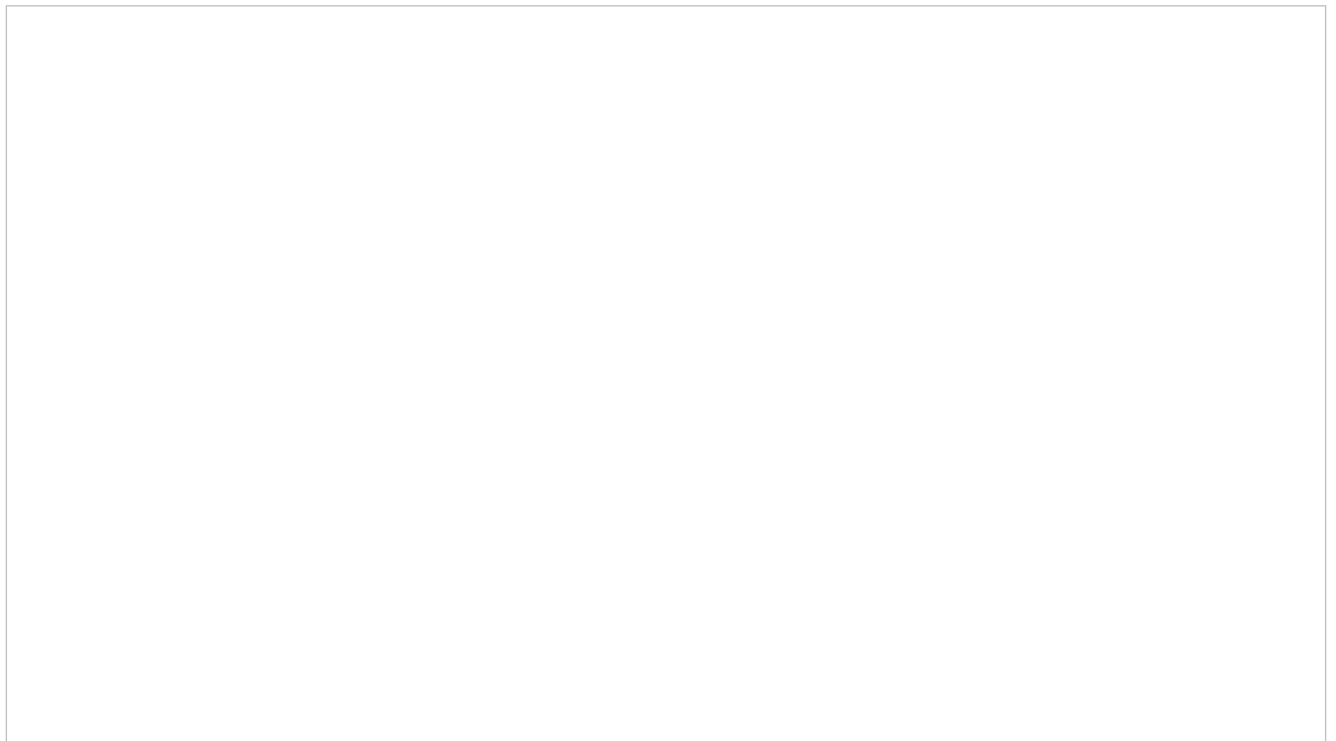
<http://stats.livingplanetindex.org/>

Closer to home, sadly, the UK is one of the most nature depleted counties on the [planet](#), which turns our attention to human-nature connection and building a closer relationship with nature. With a paucity of nature comes a lack of nature connection, which is built upon simply [noticing](#) and engaging with nature. So little surprise that the UK is also bottom of a not so super [European league for nature connectedness](#). That recent research also shows a very strong association between biodiversity and nature connectedness. Add in [research](#) that shows that higher levels of nature connectedness brings better mental wellbeing and it is also people who become greyer without nature.

There is global recognition from organisations such as the [UN](#) and [IPBES](#) that the failing human relationship with

nature is an underlying cause of the environmental crises. Greening the grey can rebuild the human-nature relationship, both through providing opportunities for people to take part in caring for nature, but also to enjoy a greener and more colourful world.

Hopefully, the bio stripes can go a little way to raising the awareness of the decline in wildlife. And readers of this blog can help. For example, with better image overlays or do you know of several decades of continuous data for the UK? This could be a broader representation or have a focus on certain species, from birds to insects. The stripes provide a great way to tell a story of that data, especially when combined with some images, for example showing the data for 944 freshwater species.



Freshwater Bio Stripes – Data: Living Planet Index
<http://stats.livingplanetindex.org/>

Here, I've simply overlaid a declining flock of birds onto the global bio stripes.



Global Bio Stripes with birds – Data: Living Planet Index
<http://stats.livingplanetindex.org/>

Climate change is structurally global, and biodiversity loss is global through aggregation across many habitats, species and populations. The effect of climate on local weather makes climate change visible and the costs more calculable. The loss of toucans and wildlife more generally, although sad, perhaps doesn't present the same clear threat to human health for many. So, in addition to accurate and eye-catching information there's a need to relate the loss of biodiversity to human well-being. Raising awareness that biodiversity underpins the health of the planet and that humans are part of the web of life. How wildlife helps keep us well, from pollinating crops to our microbiome of invisible friends essential for

good health. Ultimately, when our world is grey, so are we.



When our world is grey, so are we. Have a better overlay? Let me know.

Global Bio Stripes – Data: Living Planet Index

<http://stats.livingplanetindex.org/>

LPI 2022. Living Planet Index

<http://stats.livingplanetindex.org/>. Downloaded 8 August

2022