

u3a Second Nature October 2023

1 message

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Bulletin 006

I had planned to write on population in this bulletin, but my inbox of climate-related things is overflowing this month, so I'm devoting this bulletin to what has been in the press, and to feedback from subscribers. There are a lot of links, because I want to make sure that you can track things back to where I got them from.

In the press

Recycling (and not recycling): Lego announced that it has abandoned plans to make bricks from recycled plastic bottles because the process results in higher CO2 emissions than using virgin raw material. I think that Lego deserves full credit for this: it would have been easy for them to go for the easy PR win and plaster 'recycled' labels over all their boxes. (According to this website around 400 billion Lego bricks have been manufactured - that's 50 for every human being now alive. Lego is also the biggest tyre manufacturer in the world. Future archaeologists (if there are any) will wonder what we did with it all.)

Lego's decision should remind us that recycling is an industrial process, not always beneficial. The soft plastics that you may be taking back to the supermarket have to go to a sorting plant, then a washing plant, before going somewhere else where they can be remanufactured, probably into bin liners - and that's if they even get to a recycler; in 2022 Bloomberg <u>put trackers in three plastic bags</u> and dropped them in Tesco supermarket recycling bins. One bag ended up in Poland and one in Turkey. (I wrote to Tesco about this but never got a reply. This in itself is unusual:

supermarkets usually write back). I've posted about how our recycling is funded in Recycling in the UK.

In Bulletin 005 I mentioned the **global temperature data** provided by Berkeley Earth. These have now been confirmed by the EU's Copernicus Climate Change Service (C3S). The <u>headline numbers as reported by C3S</u> are:

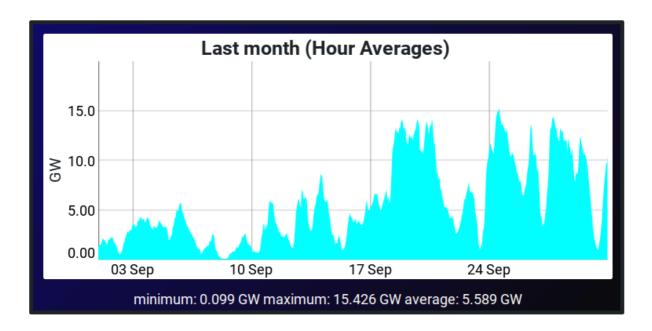
- September 2023 was the warmest September on record globally, with an average surface air temperature of 16.38°C, 0.93°C above the 1991-2020 average for September and 0.5°C above the temperature of the previous warmest September (2020).
- September 2023 global temperature was the most anomalous warm month of any year in the dataset, which goes back to 1940.
- The month as a whole was around 1.75°C warmer than the September average for 1850-1900, the pre-industrial reference period.
- The global temperature for January-September 2023 was 0.52°C higher than average, and 0.05°C higher than the equivalent period in the warmest calendar year (2016).
- For January to September 2023, the global mean temperature for 2023 to date is 1.40°C higher than the pre-industrial average.
- For Europe, September 2023 was the warmest September on record, at 2.51°C higher than the 1991-2020 average, and 1.1°C higher than the previous warmest September (2020).
- The average sea surface temperature for September over 60°S–60°N reached 20.92°C, the highest on record for September and the second highest across all months, behind August 2023.
- El Niño conditions continued to develop over the equatorial eastern Pacific.

In summary then, September has been hotter than anybody had expected. In related news, the Swiss Academy of Sciences tells us that <u>Swiss glaciers have lost 10% of their volume in just two years</u>. The head of Glacier Monitoring in Switzerland (Glamos) said that even if the world managed to keep warming to 1.5C above preindustrial levels, only a third of glacier volume in Switzerland was likely to remain; but he stressed that "there will be some ice in the highest regions of the Alps and some glaciers that we can show to our grandchildren". So that's all right then ...

In slightly better news, the climate thinktank Ember reports that <u>global CO2</u> <u>emissions from generating electricity may peak this year</u>. (I wonder how you get into a thinktank - I'm doing this stuff for free.)

The **GB wind industry** however continues to struggle, with news that <u>Community</u> <u>Energy has put its Sanquhar II windfarm on hold</u>. In a statement it said *the UK's* fourth largest onshore project with 44 turbines - 308MW of much needed green capacity - has ground to a halt as a consequence of the unfair 'Windfall Tax' on new

renewable power plants. If you're wondering how GB wind delivered in September, here is the chart: it shows a healthy average but the usual pattern of peaks and troughs, and a minimum of approximately nothing:



(The max and min here don't match the graph: this is because the graph shows day averages, where the max and min are instantaneous values).

Wind generated 24.9% of GB electricity in September. For the full picture of GB generation last month, click <u>here</u>.

Biodiversity

I haven't commented much in this (it's not my specialist subject) but I can't ignore the latest <u>State of Nature report</u>. According to this analysis one in six species is at risk of being lost in Great Britain. Since 1970, the abundance of the species studied in the report has declined on average by 19%. 31% of amphibians and reptiles are also at risk, and 28% of fungi and lichen species. 26% of terrestrial mammals in Great Britain are facing extinction. There have also been declines in the distributions of 54% of flowering plant species.

The Natural History Museum maintains a database called <u>PREDICTS</u> from which it derives a Biodiversity Intactness Index (BII), an estimate of the original number of species that remain and their abundance in any given area, despite human impacts. UK has a BII of 53%, at the bottom of the G7 and in the lowest decile internationally.

Individual efforts to combat climate change

There has been a rush of new material from <u>Project Drawdown</u> on this. An article entitled <u>The Concentric Rings of Individual Climate Action</u> identifies five 'rings':

- 1. **Learn**: familiarise yourself with climate solutions and how you can help deploy them
- 2. **Do**: alter your own activities to reduce your personal contribution to climate change.
- 3. **Share**: communicate the opportunity to make a difference with others.
- 4. **Advocate**: urge change makers to go all in on halting climate change.
- 5. **Amplify**: enhance your impact by spreading the word.

Most of us are working our way through these.

Drawdown has listed and quantified its <u>top 20 climate actions</u> for households and individuals; the top four are reduced food waste, a mainly plant-based diet, solar PV, and insulation. Recycling comes in at no. 8, EVs at 11, and heat pumps at 12. Their chart is well worth a look, although some of these measures may be more applicable to US households than to ours.

Feedback

Readers **Richard** and **Helen** describe this newsletter as 'mostly positive, discursive'. I had to look up 'discursive' and was left not much the wiser, but Richard assures me that it is not a bad thing. He asks me to recommend New Scientists's **Fix the Planet** newsletter. It looks interesting, and it's free. You can subscribe here (but please don't unsubscribe from this one).

Jenny tells me that the <u>u3a learning survey</u> does not mention climate or sustainability. Petanque and pickleball make the list, but we don't. If you find this surprising, as I do, you can add a comment at the end of the survey, or email the learning team direct at <u>learning@u3a.org.uk</u>.

Chrissie emailed to say 'thank you so much for your bulletins which are both erudite and entertaining. These alone are worth my U3a membership.' More feedback like this please. Luckily I didn't have to look up 'erudite'.

Linda from Countdown to CoP has asked me to advertise the <u>recordings</u> which are available on the u3a climate website.

Lorraine emails to tell me about a Wildflower Spotting Group she ran this summer, from April to July. It was a group of only eight but members became enthused by the search for wild flowering plants, and their identification, in various semi-urban locations. They found about 140 species in all. Lorraine would like to know if there are similar groups active in other u3as - if you know of one, please get in touch.

Bernadette asks if I know anybody who has had a heat pump installed and lives in a

terraced house. My reply:

Not personally, no. And I should say up-front that I'm not a heat pump expert. You should take advice from a reputable installer. One real expert is John Cantor, who has been in the business long enough to have bagged the domain name heatpumps.co.uk. I can't see anything on his website about terraces however. If you have £16.99 to spare then you could do worse than buy the man's book.

The Energy Saving Trust says that <u>heat pumps are suitable for all property types</u>:

'From flats to semis and mid-terraces to early 20th century detached homes, the project successfully installed heat pumps in every type and age of property targeted.

These results have busted the myth that heat pumps aren't suitable for all property types, although the project did find that there was a greater challenge in designing heat pump systems for older homes (pre-1945).

However, 163 heat pumps were successfully installed in pre-1945 properties, showing that these challenges can be overcome.'

My emphasis. We should be wary of words like 'challenges' in this context I think. One possible challenge is that heat pumps can be noisy and should be sited well away from neighbours who might be annoyed by them - this could be difficult in a terrace.

This <u>recent article</u> says that you might need planning permission.

If you share a terraced house with a heat pump, or you have more expert advice to offer, please get in touch.

(In a study published this month researchers have disproved the myth that heat pumps will let you down when it is very cold. I've posted on this in <u>FAQ</u>.)

If you have content that you would like to see in this newsletter send it to me. I reserve the right to make arbitrary but I hope fair decisions as to what is included, and to edit things in the interest of brevity. I keep your emails in a GMail folder to which only I have access; I will delete them when I don't need to refer to them any more.

References and Acknowledgements

The chart showing GB wind is from <u>Gridwatch UK</u>, an essential resource for anybody who wants to understand the GB electricity industry. The data comes from <u>Elexon</u>.

Pickleball is the official state sport of the state of Washington.

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See also the <u>u3a Climate Change & Environment website</u>.

A note on sources: I am a Guardianista (and indeed a Guardian Supporter) and I frequently forward links to content from that paper. This is for practical reasons, not political ones - unlike your favourite newspaper Guardian content is not behind a paywall (you may have to register, but you won't have to pay). I will from time to time link to content from The BBC, The Conversation, Ensia, Nature, and other sites that I feel are credible.

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