

## Teesdale u3a – Monthly Meeting – February 2023

What does the future hold for Teesdale in the light of likely changes in the climate? At the February meeting, Kate Bailey provided some possible scenarios. Kate began by summarising the main events which had led to the formation of the atmosphere, the oceans and the creation of the land masses. The earth has been subjected to Ice Ages, asteroid impact and successive periods of warming and cooling. Water vapour and carbon dioxide in the atmosphere provide a blanket which allows the temperature to be warm enough for oxygen to survive. Kate presented comprehensive statistics to show that overall temperatures and sea levels were rising. Major weather events were also on the increase. The arctic and antarctic areas seem to be warming at a faster rate. There have been no major incidents in the last 150 years which might account for these changes but there is a high correlation with the increase in greenhouse gases, particularly carbon dioxide and methane.

Kate then turned her attention to what the changes in climate might mean for Teesdale. Barnard Castle is 47 miles from Saltburn and the forecast is for only a slight rise in sea level there. Trends seem to suggest that rainfall in Durham is reducing. However, spring is arriving earlier and becoming drier. Although there are short periods of wetter weather, higher temperatures and more frequent winds, overall the situation was relatively stable. The Kielder reservoir water transfer scheme is currently able to deal with periods of drought and the water authority is confident that the situation is stable for the immediate future. Locally it is hoped that the Great North Bog Restoration Project will lead to an increase in upland peat, although there is anecdotal evidence to suggest that, during periods of heavy rain, the re-wetting process is washing peat away. Some of the Teesdale plants eg the gentian and the violet are 'on the edge'.

In summary, it appears that we are therefore fortunate to be living in Teesdale. However, there are small things that we might do as individuals that could make a difference eg use renewable sources, capture rainwater, compost food waste, recycle more effectively, support local farmers, travel less and move to an ethical bank.

Kate's presentation was comprehensive, well researched and evenly balanced. Given the current relevance of the topic it was clear that she was warmly supported by the audience.

Ian Reid