Notes from AMORE meeting 8 (reading netcdf, plotting maps and sections, data wrangling)

Dan Kelley (he, him)

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Summary

Dan talked about the use of base-R functions `cut()`, `split()` and `lapply()`, with a general introduction being followed by two examples relating to the timeseries of atmospheric CO_2 concentration, i.e. the "Keeling Curve" (see the engaging essay by Monroe (2013) for more on the history of this dataset). This led to code included as `co2-year-average.R` in this directory.

More briefly, he pointed at code (file `co2-average-months.R` in this directory) that takes more detailed CO2 data and breaks it down into years, and then into months.

Dan also mentioned a stacking-plot example, showing the result but not the code. That is included as the file `co2-stack-years.R` in the present directory.

Plans

This was the last planned AMORE session for the summer of 2023. That doesn't means that members of the group are "on their own", though. If the meetings have been successful, participants will feel free to reach out to others in the group if they need advice.

Plots from the code

References

Monroe, Rob. 2013. "The History of the Keeling Curve." *The Keeling Curve.* https://keelingcurve.ucsd.edu/2013/04/03/the-history-of-the-keeling-curve/.
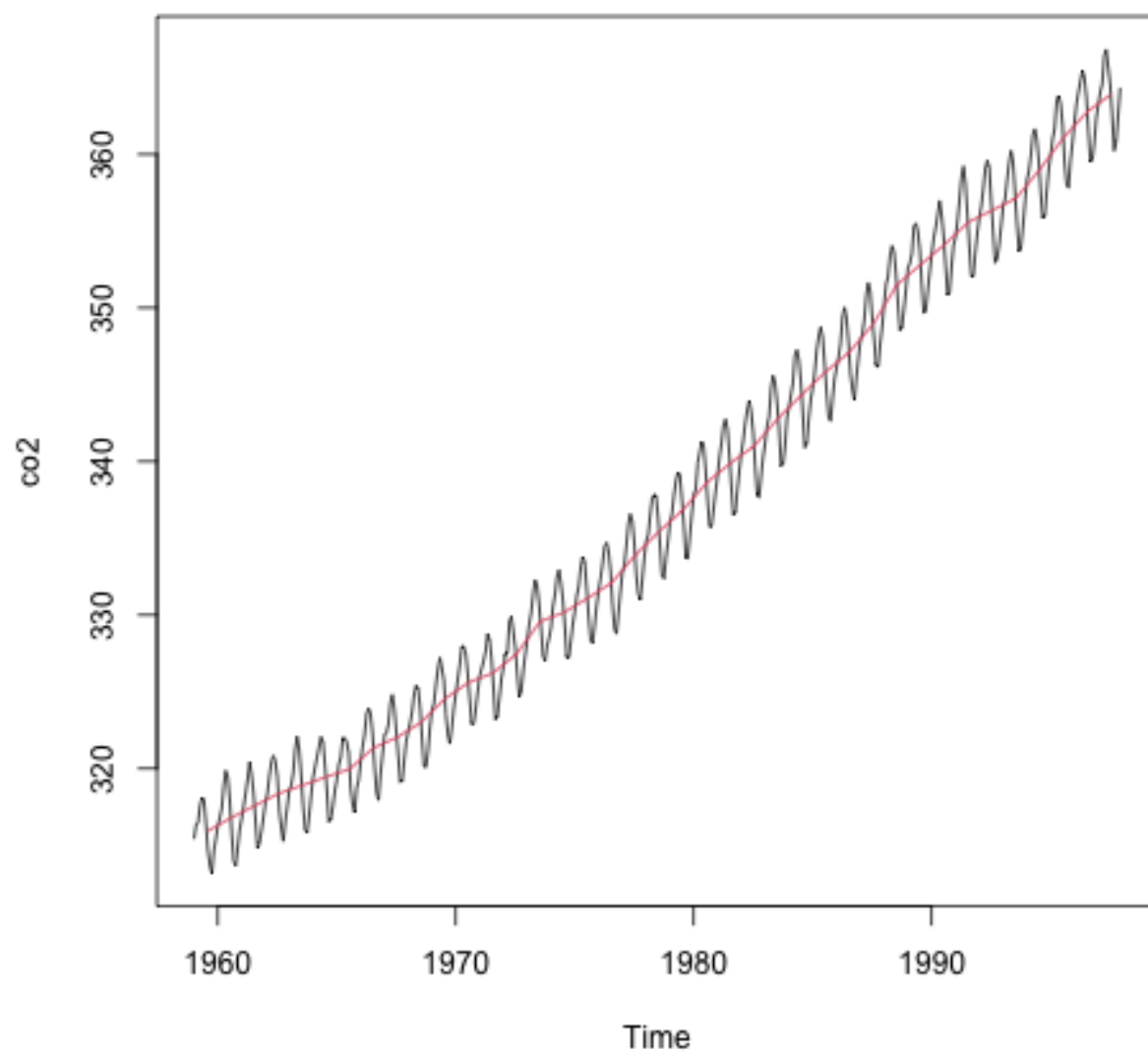
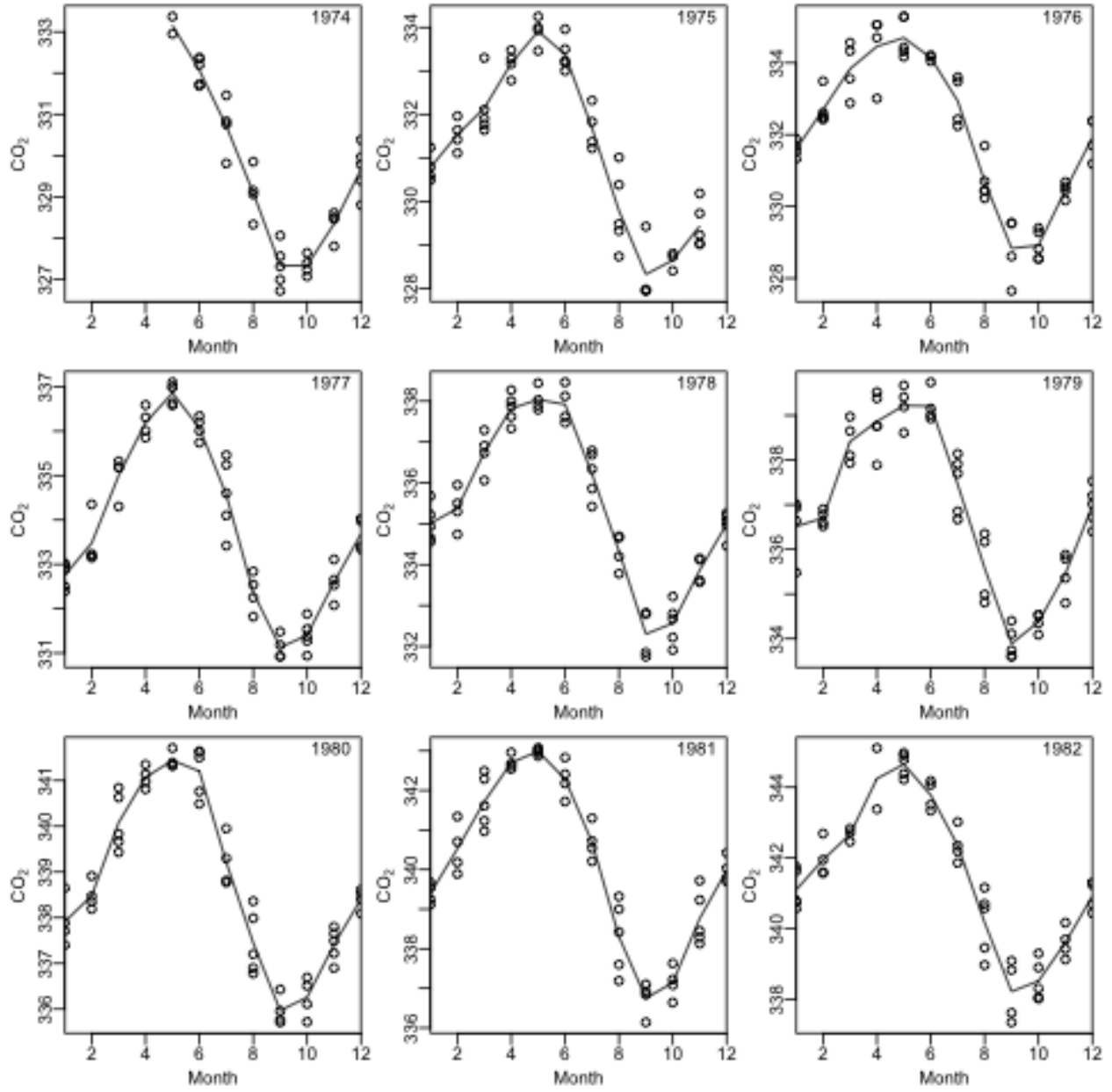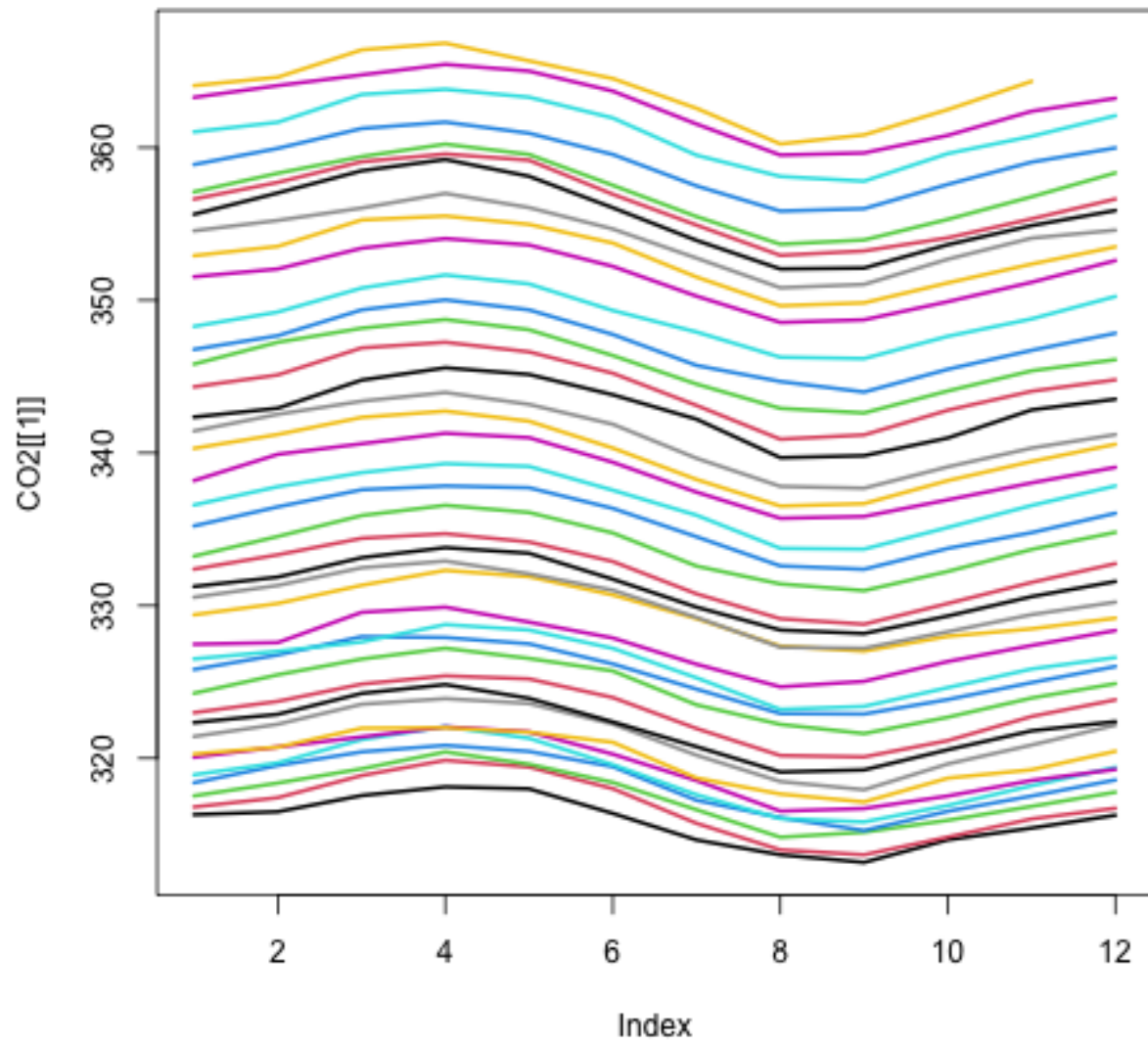Figure 1: Output from `co2-year-average.R`

Figure 2: Output from `co2-average-months.R`

Figure 3: Output from `co2-stack-years.R`