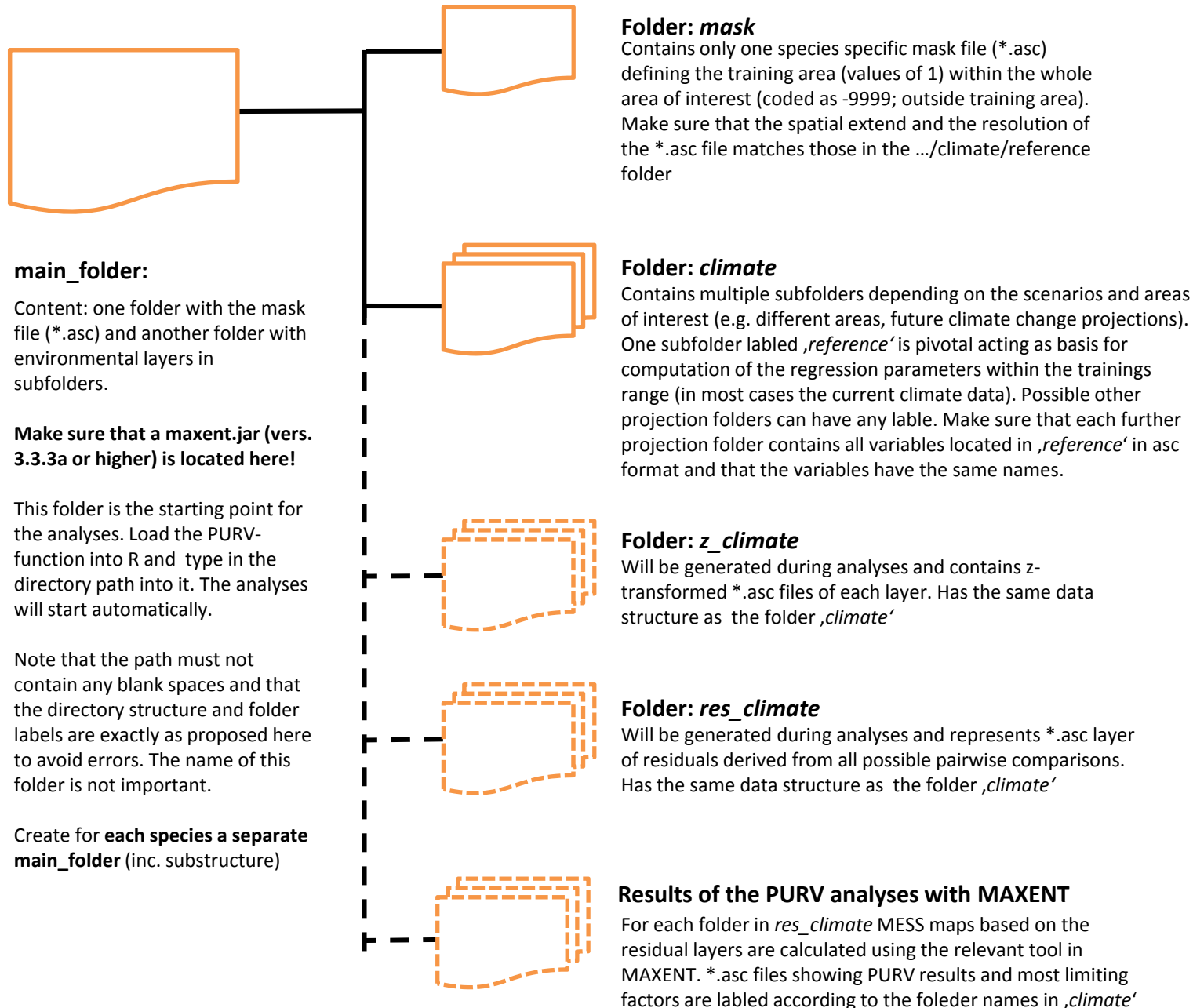


Supplementary material: Engler & Rödder

– A novel visualization technique for spatial variation of predictor variable colinearity –

Quick start guide for PURV analyses

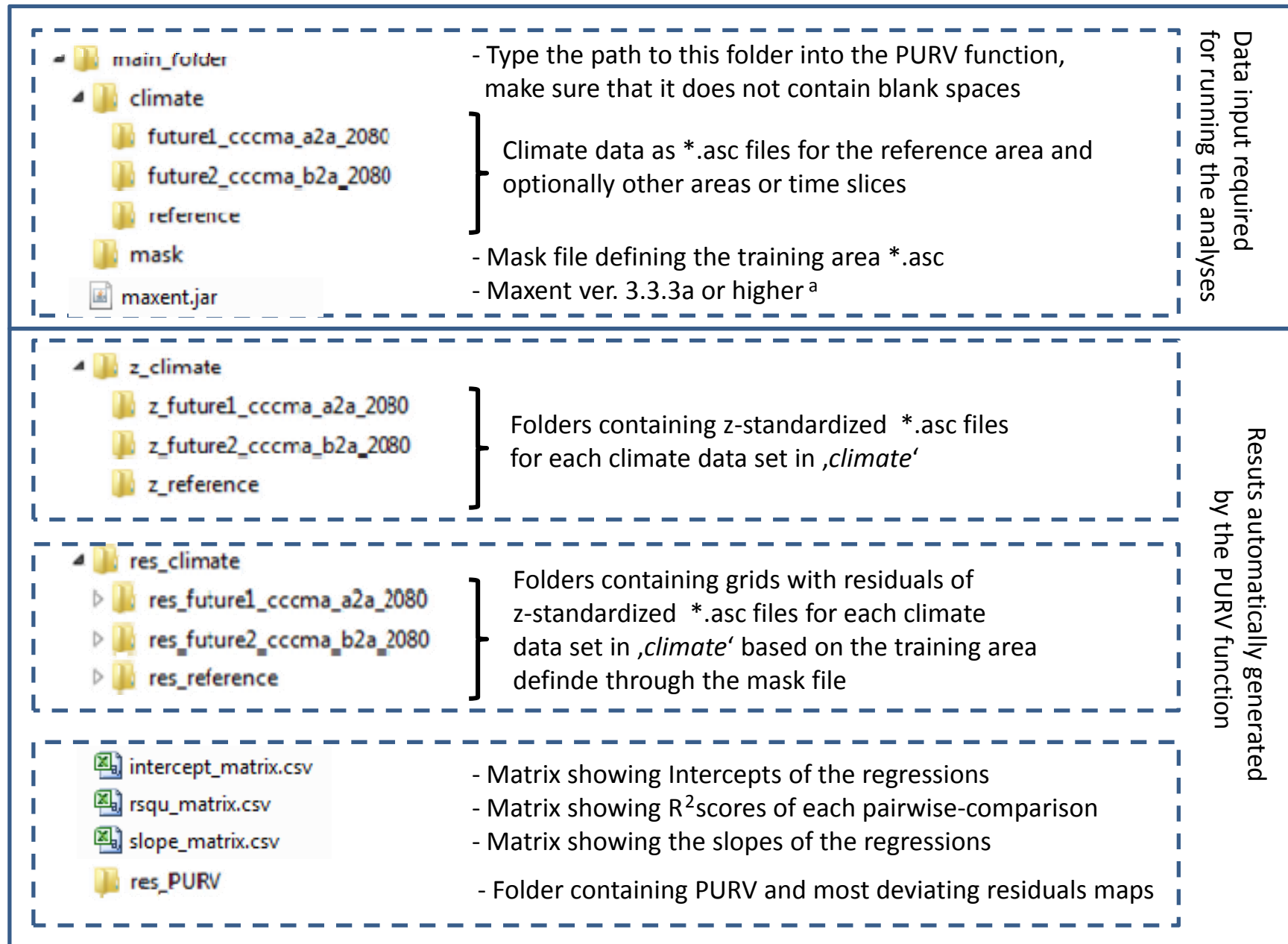
General Folder Structure required for PURV analyses



Getting started

- Save all training data files into a single folder and copy a recent version of Maxent (vers. 3.3.3a or higher Phillips et al. 2006) into it. Make sure that the folder path does not contain spaces
- Start Cran R and make sure that the *sp* package is installed
- Type the absolute file path to the main_folder into the PURV function
- Copy the whole content of the Tinn-R file into R
- The analyses will run automatically and R will create a new folders containing the results
- Consult the next page for a detailed explanation of the folder structure

Structure of the training sample available as online Appendix



^a Available through: <http://www.cs.princeton.edu/~schapire/maxent/>

References

For Maxent, please refer to

- Phillips, S.J., M. Dudík, R.E. Schapire (2004) A maximum entropy approach to species distribution modeling. In: Proceedings of the Twenty-First International Conference on Machine Learning, pp. 655-662.
- Phillips, S.J., R.P. Anderson, R.E. Schapire (2006) Maximum entropy modeling of species geographic distributions. *Ecological Modelling*, 190:231-259.
- Elith, J., S.J. Phillips, T. Hastie, M. Dudík, Y. En Chee, C.J. Yates (2011) A statistical explanation of MaxEnt for ecologists. *Diversity and Distributions*, 17:43-57.

For the general introduction to MESS analyses, please refer to

- Elith, J.M. Kearney, S.J. Phillips (2010) The art of modelling range-shifting species. *Methods in Ecology and Evolution* 1: 330-342.

Accompanying climate data was obtained from

Current data:

- Hijmans, R.J., S.E. Cameron, J.L. Parra, P.G. Jones, A. Jarvis (2005) Very high resolution interpolated climate surfaces for global land areas. *International Journal of Climatology* 25: 1965-1978. Available through www.worldclim.org

Future data:

- Ramirez, J., A. Jarvis (2008) High resolution statistically downscaled future climate surfaces. Centre for Tropical Agriculture, CIAT. Available through http://ccaafs-climate.org/download_allres.html

For the Canadian Centre for Climate Modelling and Analysis global circulation model (CCCMA)

- Flato, G.M., G.J. Boer (2001) Warming Asymmetry in Climate Change Simulations, *Geophysical Research Letters* 28: 195-198.