**Appendix S4: R code used to generate the simulated datasets**

The R code used to generate the simulation results from the section ‘*Precision and bias of our approach in datasets and sample size considerations***’** as well as the simulated dataset con be found in the following files:

*Appendix\_S4\_RCode.R*

*Appendix\_S4\_ dataset\_ChaffinchClim.txt*

*Appendix\_S4\_ dataset\_SimChaffinchBio.rar*

This last .rar files contains three files that

*Appendix\_S4\_ dataset\_SimChaffinchBio\_R2\_0.2.txt*

*Appendix\_S4\_ dataset\_SimChaffinchBio\_R2\_0.4.txt*

*Appendix\_S4\_ dataset\_SimChaffinchBio\_R2\_0.8.txt*