**Supporting Information**

Paper Title

Authors

Appendix SI.1 - **Description of CAETÊ (Carbon and Ecosystem functional Trait Evaluation Model) Version 1.0**

1. Model structure
   1. Version 1.0 – Stationary model
   2. Creating and sampling Plant Life Strategies (PLSs)
   3. Grid-cell occupation
   4. The Big-Leaf architecture
2. Input Data
3. Photosynthesis

3.1. Leaf level

3.2. Canopy level

4.Stomatal conductance

5.Respiration

* 1. Growth
  2. Maintenance

1. NPP
2. Evapotranspiration
3. Carbon allocation
4. Carbon pools
5. Water balance
6. Biomass turnover and decomposition
7. Mortality
8. Functional traits and trade-offs
   1. Leaf carbon and LAI/SLA
   2. Aboveground woody carbon and light
   3. Fine roots carbon and water availability
   4. Respiratory costs
9. Spinup
10. Programming and code availability
11. Flow Diagram
12. Model parameters
13. References

Appendix SI.2 – Sensitivity analysis