

We'd like to thank the authors for this interesting and novel use of the TERN Ecosystem Processes /OzFlux eddy covariance data. It is especially rewarding to see Australian authors make use of the data, which has been freely shared by site PI's over the last decade or so.

We have a few minor suggestions that we feel would help strengthen the paper, by making the eddy covariance data more transparently accessible to other researchers, clarifying the processing steps used in the flux data, and providing proper acknowledgement of the data sources.

- Please provide more details of the flux data in section 2.1.1. Readers need to know which server the data was downloaded from. We are guessing this is likely to be the OzFlux THREDDS server, in which case the URL needs to be provided.

We acknowledge that we were a little vague in that section on precisely which versions of the data we used and where we extracted it from, so thank you for pointing out the need for further details . We extracted the data from the TERN THREDDS data portal. We have added this url path to section 2.1.1. We have also included reference to the version of data used in this study: i.e., "2022_v2-default".

- Also in Section 2.1.1: Although available as an option (Isaac et al., 2017), MODIS EVI data were not used in the processing pipeline of the default data products the authors appear to have used. The default drivers for the SOLO neural network were air temperature, soil temperature and soil moisture. Please clarify and correct that statement.

Thank you for pointing out this mistake, we have corrected the statement in the manuscript. It now reads: "This study uses the 'SOLO' data version which is calculated using a data-driven nocturnal respiration approach for partitioning where respiration is modelled using an artificial neural network driven by air and soil temperature, and soil water content."

- Provide more details of which flux data were used in the Data Availability section at the end of the paper.

We have added the following statement to the Data Availability section:

The Level 6 Ozflux eddy covariance data used by this study is accessible through the Terrestrial Ecosystem Research Network THREDDS data portal, available at: https://dap.tern.org.au/thredds/catalog/ecosystem_process/ozflux/catalog.html. This study relied on the data version "2022_v2", and in instances where both "site-pi" and "default" versions of the datasets were available, we utilised the "default" datasets. See Figure A1 for a full list of sites used.

- Add details to the table embedded in Figure A1 to give the start and end dates of the data streams used. Also, please include the official FLUXNET 2015 IDs for the site names, so that the global flux community can understand which sites were used.

We have updated the table in Figure A1 to now include the Fluxnet ID (where available), and have also included the full name of the site, and the starting and ending dates of the data used in the study. For space reasons we have removed some of the summary climate information that was previously in the table.

- **Collective acknowledgement of TERN Ecosystem Processes/OzFlux site PIs in the Acknowledgements section would be greatly appreciated.**

We fully appreciate that this work is only possible through the collective efforts of the OzFlux and TERN teams, and we have amended the acknowledgements section to more clearly state this.

“The authors would like to thank the Terrestrial Ecosystem Research Network (TERN) Ecosystem Processes team, along with the OzFlux site principal investigators whose collective efforts in acquiring and curating the eddy covariance data provides an invaluable resource to the research community.”

- **As a courtesy, please consider sending an email to individual PIs, whose contact information is contained in all the netCDF files, advising the use of the data. Alternatively or in addition, feel free to contact the TERN Ecosystem Processes (Lucas Cernusak) lead or the OzFlux director (Jamie Cleverly) as a single point of contact to advise that you are using the data.**

We have contacted Lucas Cernusak and Jamie Cleverly and they have responded favourably.

We also recognize that there are steps we can take as TERN Ecosystem Processes/OzFlux data providers to make the data more readily accessible and citable. We thank the authors for bringing this to our attention through the useful contribution of their paper.