Dear Professor Medlyn,

Thank you for this question. We didn't bias correct a humidity variable because it was not needed by the hydrological model (AWRA-L v6) that was used for the NHP.

We investigated calculating vapour pressure using the assumption that the dewpoint is tasmin and calculating vapour pressure using the FAO56 PM equation.

The results are displayed below. It is a bit hard to read the scale but the percentage difference plot ranges from -18 to 70 percent. This indicates that the assumption of using tasmin as the dewpoint is unrealistic (as expected).

Unfortunately, this means that you would need to apply your own bias correction to vapour pressure independently before using the NHP output for your vegetation modelling.

As part of the Australian Climate Service (ACS – see https://www.acs.gov.au/), we will be undertaking bias correction of vapour pressure using CMIP6 data. Hopefully that data will be usable for applications such as yours.
31-Dec-2019
Vapour pressure

Solar exposure
Tmax
wind

Vapour pressure (6am/7am)

Fao56 (jiangyong from 7am)

Vp=6.108exp(17.27°Tmin/237.3 + Tmin)

Observed data
Fao56 (% difference)