



Correction to: The contributions of fronts, lows and thunderstorms to southern Australian rainfall

Acacia S. Pepler¹ · Andrew J. Dowdy¹ · Peter van Rensch¹ · Irina Rudeva^{1,2} · Jennifer L. Catto³ · Pandora Hope¹

Published online: 28 August 2020
© The Author(s) 2020

Correction to: *Climate Dynamics*
<https://doi.org/10.1007/s00382-020-05338-8>

In the original published version of the paper, the figures reported in Sect. 4 relating the proportion of rainfall in southern Australia that is due to each of the weather types, were incorrectly stated for the entire Australian landmass, with the same error also affecting Figs. 6 and 8. The correct first paragraph of Sect. 4 is given below, as are corrected versions of Figs. 6 and 8 showing results averaged over southern Australia only.

Averaged across southern Australia (south of 25°S), 48% of all days at a given location fall into one of the seven main

weather types (CO, FO, TO, CF, CT, FT, or CFT), with the remaining 52% of days classified into one of the four other categories (Fig. 6). These seven weather types account for a higher proportion of rainfall, averaging 84% of all rain days across southern Australia and 89% of total rainfall. As shown in DC17, the combined types are disproportionately responsible for heavy rain days: the combination of a cyclone and thunderstorm occurs on 4% of days but 19% of days with at least 10 mm of rainfall, while a triple storm occurs on 5% of days but 22% of days with heavy rainfall. In comparison, days with just a cyclone or front without thunderstorm conditions are less likely to produce heavy rainfall.

The original article can be found online at <https://doi.org/10.1007/s00382-020-05338-8>.

✉ Acacia S. Pepler
acacia.pepler@bom.gov.au

- ¹ Bureau of Meteorology, Melbourne, Australia
- ² University of Melbourne, Melbourne, Australia
- ³ University of Exeter, Exeter, UK

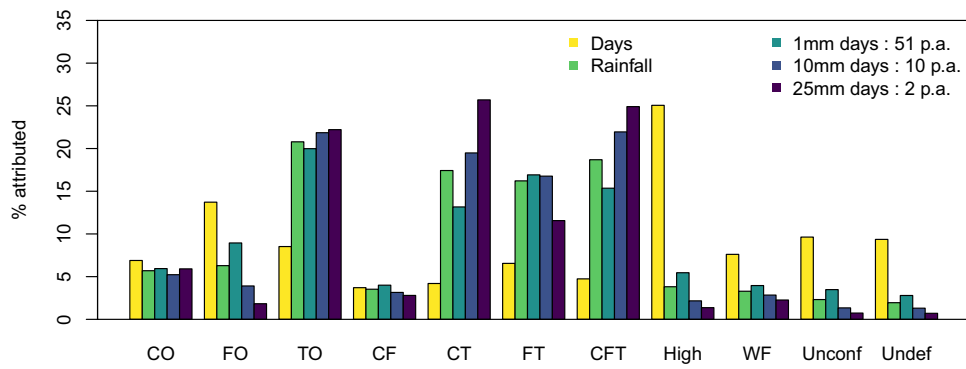
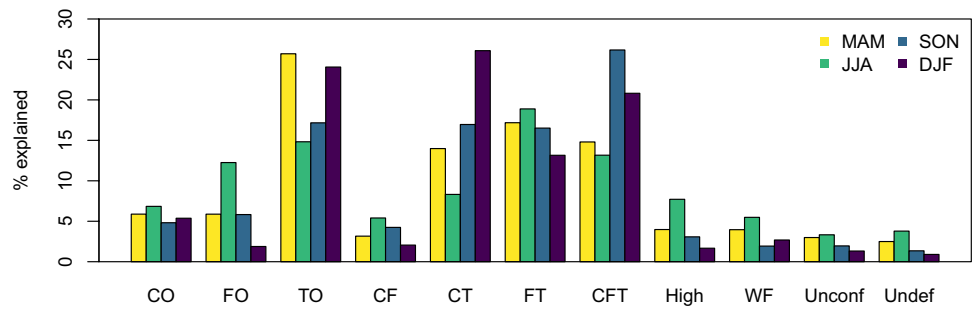


Fig. 6 Annual percentage contribution of each weather system type to rainfall in the 0.05° AWAP gridded analyses between 1979–2015, averaged across all land areas of Australia south of 25°S. Bars show the percentage of all days influenced by each weather type (Days), the total annual precipitation from each type (Rainfall), and the pro-

portion of all days with rainfall exceeding a given threshold (1 mm, 10 mm and 25 mm) that are associated with a given weather type. Legend shows the average number of days p.a. for each rainfall threshold

Fig. 8 Contribution of each weather system type to total rainfall in the 0.05° AWAP gridded analyses for Australia south of 25°S, 1979–2015 during austral autumn (MAM), winter (JJA), spring (SON) and summer (DJF)



Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.