The Keetch-Byram Drought Index: A Corrigendum

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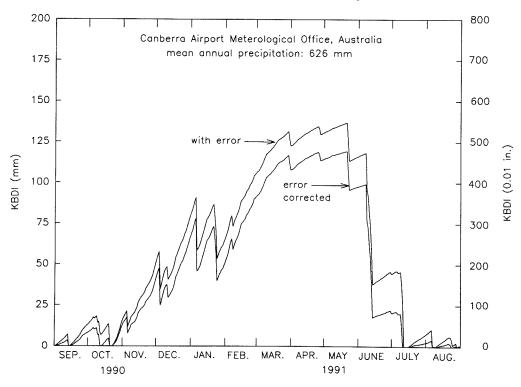


Fig. 1. Comparison of computer-calculated values of the Keetch–Byram Drought Index (KBDI) with and without the typographical error in the daily drought factor equation of Keetch and Byram (1968). The daily maximum temperature and precipitation data used in the calculations was kindly provided by the Commonwealth of Australia, Bureau of Meteorology, Canberra Regional Office.

The drought index developed for fire control purposes by Keetch and Byram (1968) is widely used by forestry authorities in the United States and in many other regions of the world (e.g., Livingston 1974; Rose 1990). The objective of this brief communication is to highlight the existence of a significant typographical error in the empirical equation used to calculate the daily drought factor of the index (Fig. 1), the details of which are given elsewhere (Alexander 1990). However, for present purposes, it is sufficient to simply refer to the second equation given on page 23 of WMO (1975). The last constant in the numerator should be 8.30, not 0.83 (this also applies to Eq. 18 in Keetch and Byram 1968). Although this error has now been detected by others (e.g., Beer 1991), it is hoped that the existence of this note will be of value to others who may use this drought index in the future; presumably it will be distributed as an erratum with further sales of the WMO (1975) publication.

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