

**Table S1 Details on where the reported data were sourced**

Study	Water Type	Locations of data in primary sources
(Dawson and Ehleringer, 1991)	Stream	In text, last paragraph on p. 335
	Soil	Inferred from Figure 1 and text in the last paragraph on page 335
	Ground Xylem	Caption of Table 1 In text, first paragraph on p. 336; only large streamside trees and small non-streamside trees are used
Thorburn and Ehleringer, 1995	Ground	Table 1
	Xylem	Table 2
	Soil	Table 2
Kerhoulas et al., 2013	Soil	Table 3, only Spring 2009 and Monsoon 2010 values used
	Xylem	Table 3, only Spring 2009 and Monsoon 2010 values used
Goldsmith et al., 2012	Soil	Extracted from Fig.3 A, C, E, and G (WebPlot Digitizer, Pacifica, CA, USA)
	Xylem	Extracted from Fig.3 A, C, E, and G (WebPlot Digitizer, Pacifica, CA, USA)
Allen et al., 2019b	Xylem	From the original data file, available in the Allen et al., 2019b supplement
	Precipitation	From the original data file, available in the Allen et al., 2019b supplement