Table 0.1: Locations and characteristics of field sites. Hydrological class refers to the classification by Kennard et al. (2010).

Site	Longitude	Latitude	Hydrological class
Snowy Creek	147.413	-36.569	stable winter baseflow
Gibbo River	147.709	-36.756	stable winter baseflow
Goodradigbee River	147.826	-36.444	stable winter baseflow
Nariel Creek	148.731	-36.421	stable winter baseflow
Jacobs River	148.427	-36.727	stable winter baseflow
Tuross River at Belowra	149.709	-36.201	unpredictable baseflow
Genoa River	149.321	-37.174	unpredictable baseflow
Wallagaraugh River	149.714	-37.371	unpredictable baseflow
Mann River	152.105	-29.695	unpredictable baseflow
Cataract Creek	152.217	-28.934	unpredictable baseflow
Jilliby Creek	151.389	-33.246	unpredictable intermittent
Sportsmans Creek	142.981	-29.467	unpredictable intermittent
Mammy Johnsons River	151.979	-32.244	unpredictable intermittent
Wadbilliga River	149.694	-36.259	unpredictable intermittent
Tuross River downstream of Wadbilliga junction	149.761	-36.197	unpredictable intermittent

Kennard, M.J., Pusey, B.J., Olden, J.D., Mackay, S.J., Stein, J.L. Marsh, N. (2010) Classification of natural flow regimes in Australia to support environmental flow management. *Freshwater Biology*, 55, 171193.

Table 0.2: Summary for Principal Components Analysis across all 24 hydrological metrics described in this study. PC1 here corresponds to the first principal component of variation across metrics which had significant relationships with CWM wood density (Pearson correlation = 0.990) (see Fig. 4 in the main text for reference).

	PC1	PC2	PC3	PC4	PC5
Standard deviation	3.61	1.86	1.52	1.39	1.04
Proportion of variance	0.543	0.144	0.096	0.080	0.045
Cumulative proportion	0.543	0.688	0.783	0.864	0.909

Table 0.3: Data density of trait dataset using (a.) site-specific field-sampled values for wood density only; (b.) site-specific field-sampled values combined with averaged values from other sites, and; (c.) (a) and (b) combined with values from wood density databases. For one species (*Eucalyptus camphora subsp. humeana*), intraspecific variability was greater than 0.1 g / cm3, and the averaged value was deemed not to be representative of the true value. This species was present at 1.4 % cover at site 9.

Site	*# species sampled in field* (a)	*Data density using field sampled values (a)*	*# species sampled in field at any site (b)*	*Data density using field sampled values at any site (b)*	*# species with available trait values (c)*	*Data density using all values (c)*
1	7	0.98	7	0.98	9	1.00
2	1	1.00	1	1.00	1	1.00
3	4	0.97	5	1.00	5	1.00
4	4	0.81	5	0.95	6	0.97
5	5	1.00	5	1.00	5	1.00
6	5	1.00	5	1.00	5	1.00
7	4	0.92	5	0.94	5	0.94
8	7	0.98	8	1.00	8	1.00
9	3	0.63	5	0.70	8	0.84
10	3	0.64	6	0.97	6	0.97
11	4	1.00	4	1.00	4	1.00
12	3	0.62	6	0.88	8	0.98
13	8	0.92	9	0.95	12	1.00
14	4	0.75	5	0.80	8	0.86
15	5	0.92	5	0.92	6	1.00

Table 0.4: Sources of wood trait values for species which could not be sampled in the field.

Species	*Source of wood density value*
Guioa semiglauca	Kooyman & Westoby (2009)
Pittosporum spinescens	Stuart (2011)
Cassinia trinerva	Tng & Bowman (2013)
Bedfordia arborescens	Tng & Bowman (2013)
Prostanthera lasianthos	Tng & Bowman (2013)
Pultenaea juniperina	Tng & Bowman (2013)
Ligustrum sinense	Martnez-Cabrera et al. (2009)
Grevillea robusta	Chave et al. (2009) - averaged value
Notelaea longifolia	Chave et al. (2009)
Trema tomentosa subsp. aspera	Chave et al. (2009) - averaged value

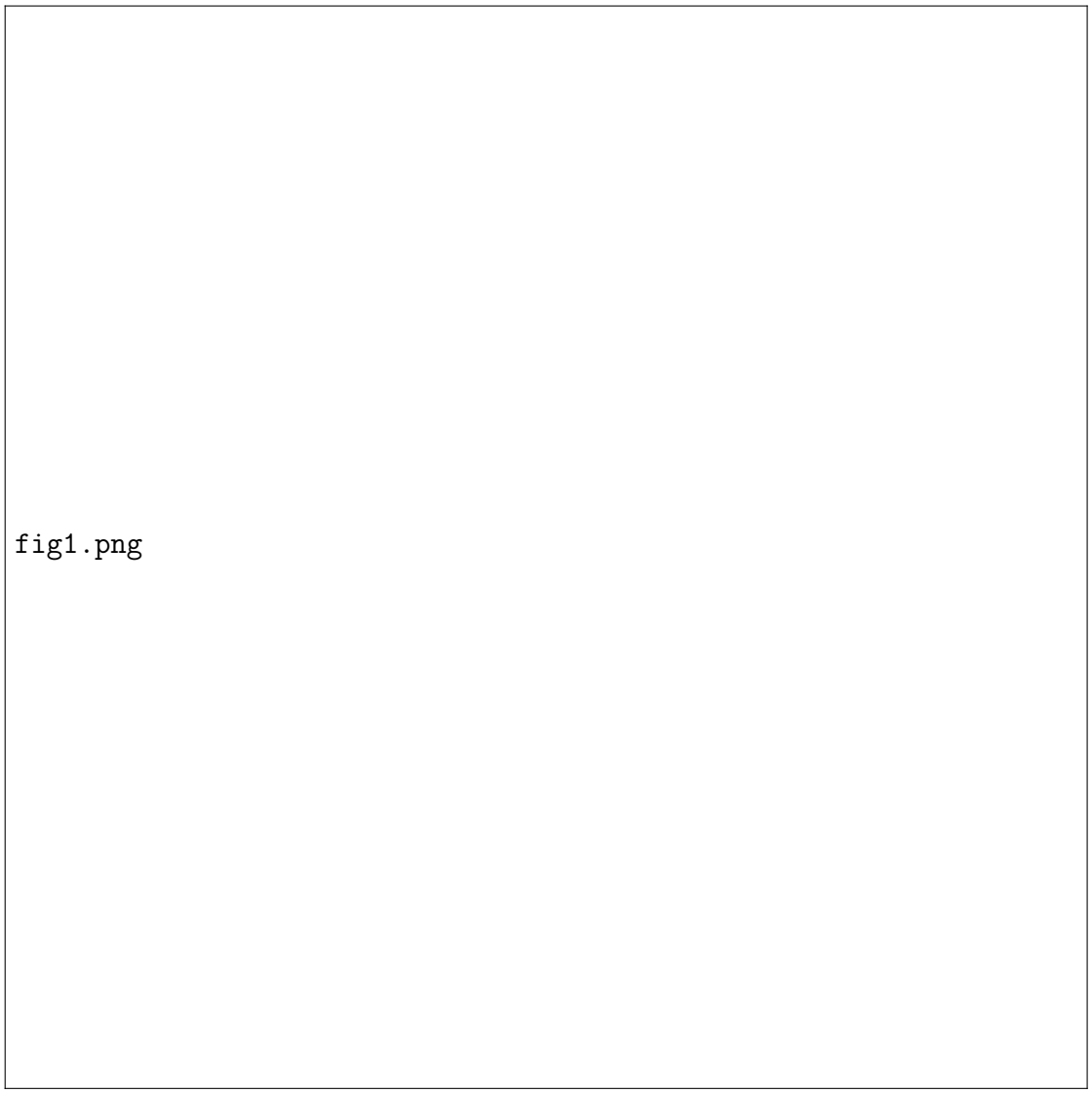
Chave, J., Coomes, D., Jansen, S., Lewis, S.L., Swenson, N.G. Zanne, A.E. (2009) Towards a worldwide wood economics spectrum. *Ecology Letters*, 12, 351366.

Kooyman, R.M. Westoby, M. (2009) Costs of height gain in rainforest saplings: Main-stem scaling, functional traits and strategy variation across 75 species. *Annals of Botany*, 104, 987993.

Martnez-Cabrera, H.I., Jones, C.S., Espino, S. Schenk, H.J. (2009) Wood anatomy and wood density in shrubs: Responses to varying aridity along transcontinental transects. *American Journal of Botany*, 96, 13881398.

Stuart, S.A. (2011) Cold Comfort: Diversification and Adaptive Evolution across Latitudinal Gradients, *PhD Thesis*.

Tng, D.Y.P., Jordan, G.J. Bowman, D.M.J.S. (2013) Plant traits demonstrate that temperate and tropical giant eucalypt forests are ecologically convergent with rainforest not savanna. *PLoS ONE*, 8, 113.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