Supplementary material

Factors Driving Unexpected Drought-Induced *Nothofagus dombeyi* Mortality in a Valdivian Temperate Rainforest, Argentina

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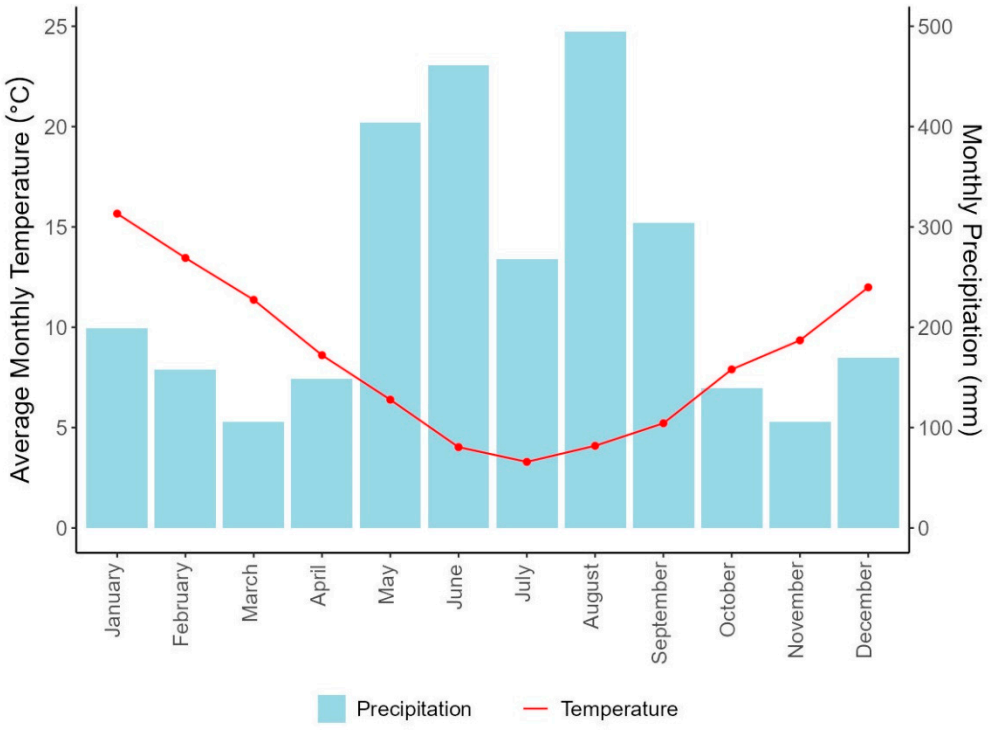


Figure S1. Climograph illustrating average monthly temperature and total monthly precipitation using data from the Puerto Blest meteorological station for the period 2012–2014. From 21st June to 21th September correspond to winter in the Southern Hemisphere. The low amount of precipitation in July may probably correspond to snowfall not recorded by the station.

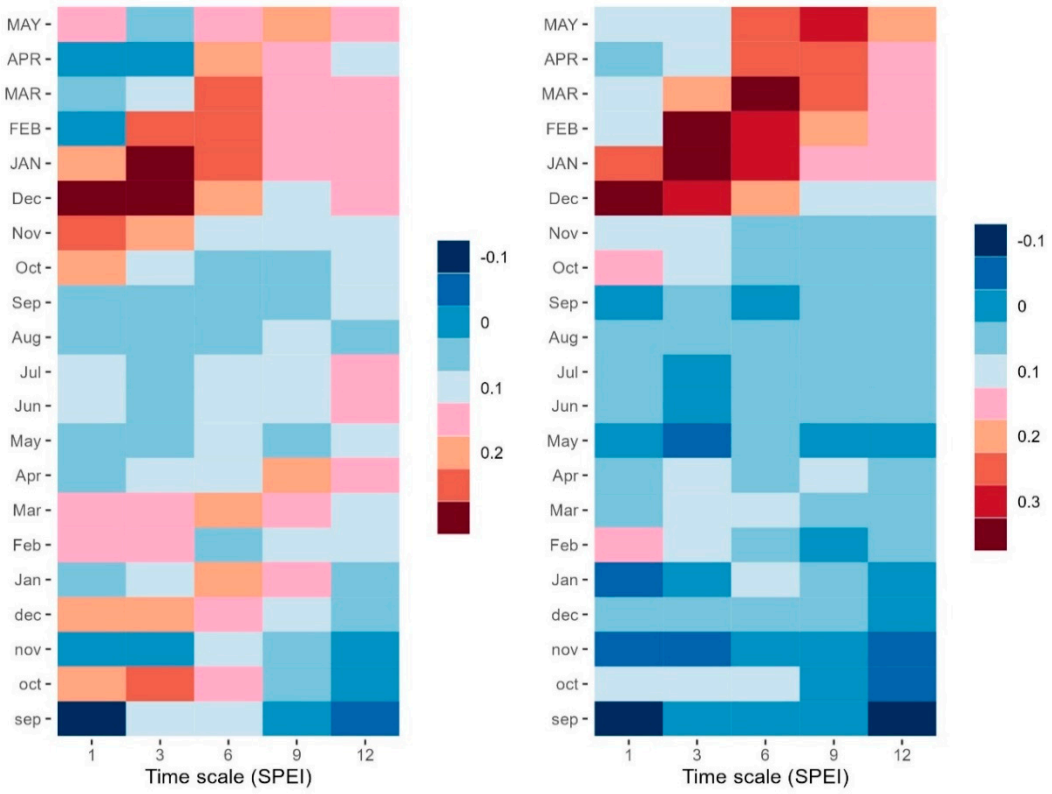


Figure S2. Bootstrapped correlation coefficients calculated between residual healthy (left) and dead (right) chronologies, and the Standardized Precipitation and Evapotranspiration Index calculated at 1-, 3-, 6-, 9-, and 12-time scales. The window of analysis spanned from previous September (lowercase letters) to May of the current growing season (uppercase letters).

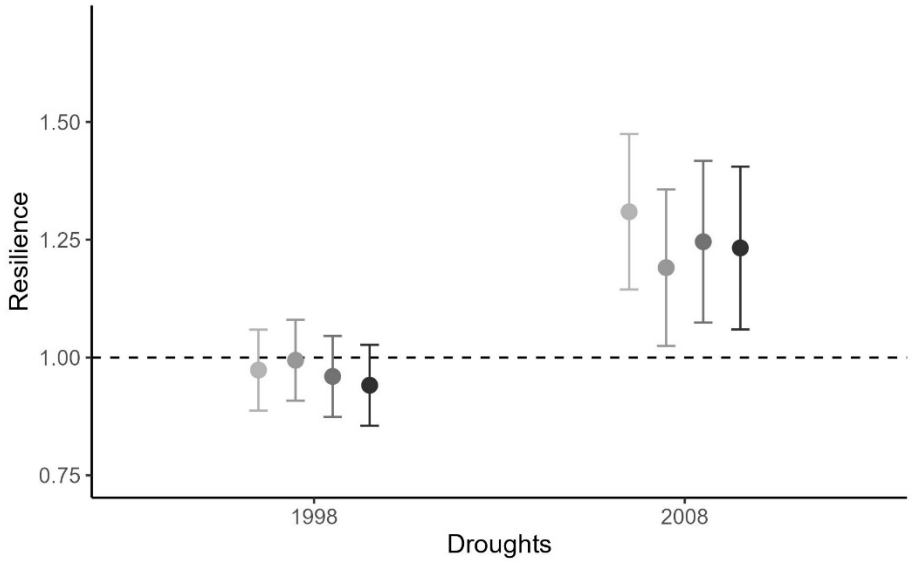


Figure S3. Resilience values calculated using different time windows of pre- and post-drought years (integration periods = 2, 3, 4 and 5 years) for the two selected droughts: 1998,

and 2008. Black dots represent the estimated marginal means of resilience (Table A1), and lines the lower and upper confidence level for each integration period.

Table S1. Type 3 ANOVA summary of the mixed-effects model output for resilience values calculated using different pre- and post-drought years (integration periods (ip) = 2, 3, 4 and 5 years) at two different dry spells (dr_year: 1998 and 2008)

Predictors	***F-value***	***P***
Fixed effects		
dry_year	54.09	<0.0001
Integration period (ip)	2.11	0.098
dry_year × ip	0.62	0.60
Random Effects		
σ2	0.01	
N	63_{ID}	
Observations	490	
Marginal R^2 / Conditional R^2	0.150 / 0.899	

σ_i^2 represents the mean random effect variance of the model. R-squared values are based on *Nakagawa et al.* **[55]**