forests

Supplementary material

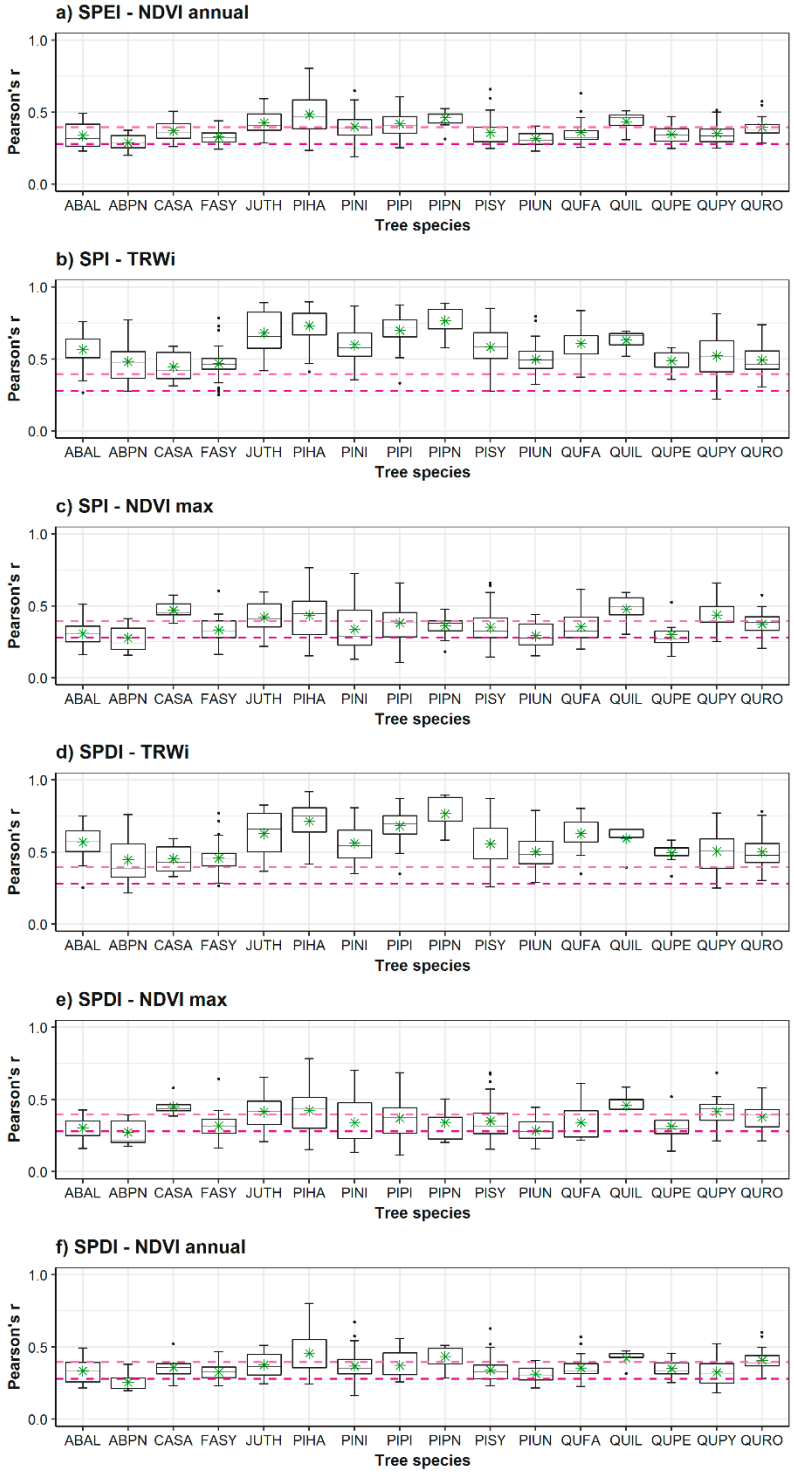

Figure S1. Box plots showing the maximum Pearson correlation coefficients computed between NDVI annual (**a**,**f**), ring-width indices (TRWi (**b**,**d**), and NDVImax (**c**,**e**) and the multi-scalar drought indices (SPEI, SPI and SPDI). The solid black line corresponds to the median, green asterisks mark the mean and dashed lines show the significance level at $p < 0.05$ (light pink) and $p < 0.01$ (dark pink). Species' codes correspond to those listed in Table 1.

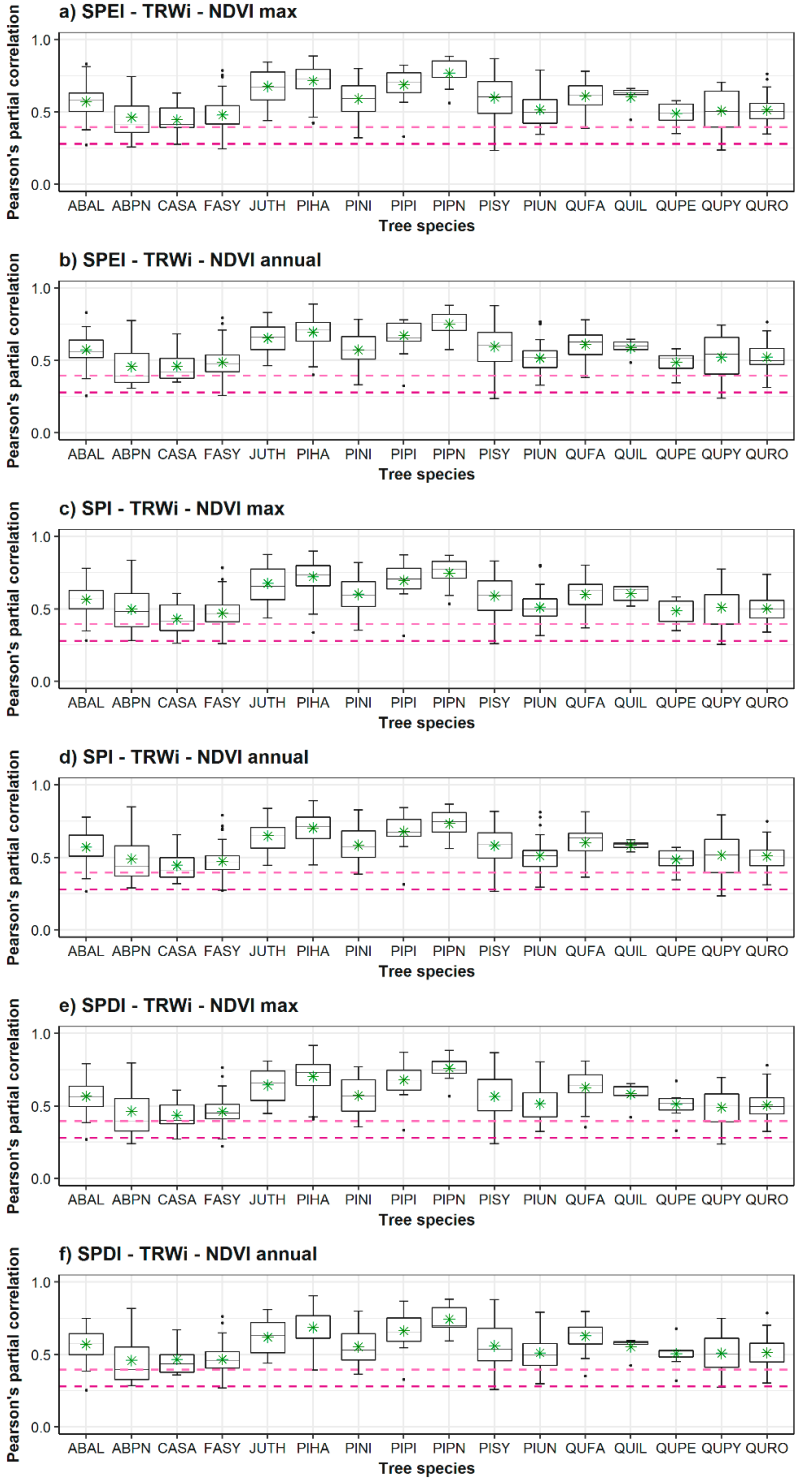

Figure S2. Box plots showing the maximum partial Pearson Correlation Coefficients found between TRWi (**b**,**d**), NDVI max (**c**,**e**), NDVI annual (**a**,**f**) and the multi-scalar drought indices. The solid black line corresponds to the median, green asterisks mark the mean and dashed lines show the significance level at $p < 0.05$ (light pink) and $p < 0.01$ (dark pink). Species' codes correspond to those listed in Table 1.

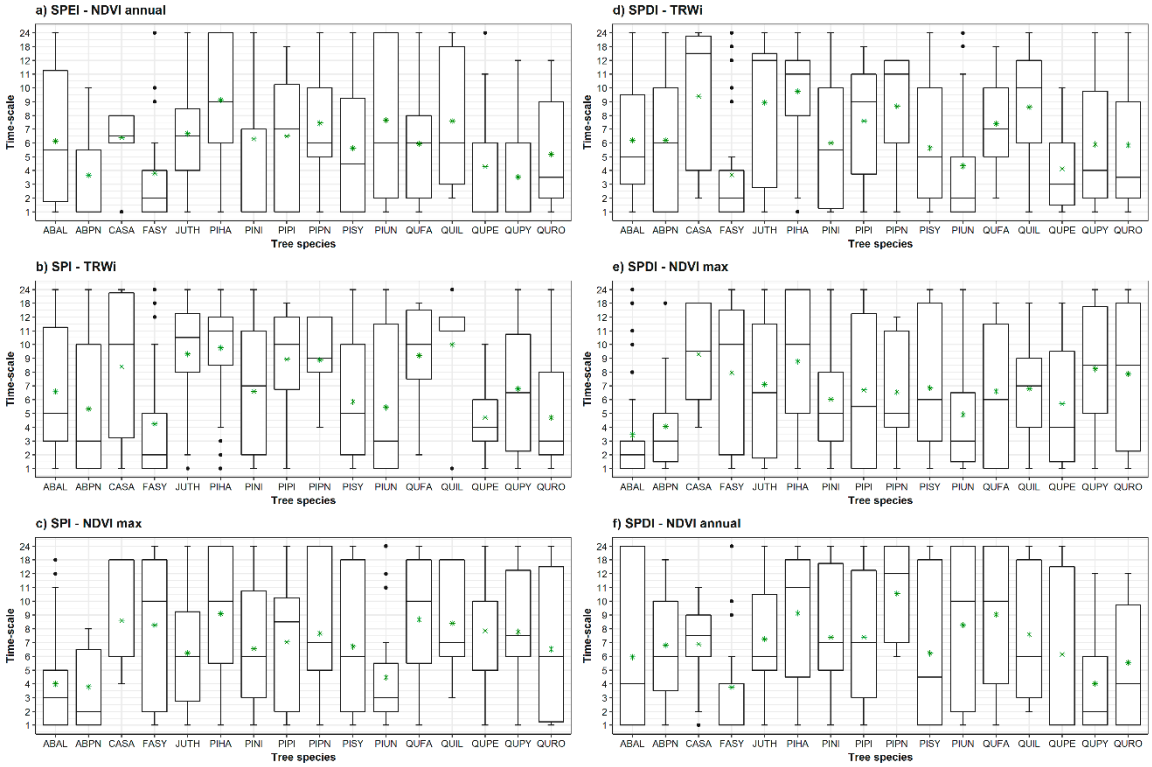

Figure S3. Box plots showing the most correlated time-scale found for TRWi (**b**,**d**), NDVI max (**c**,**e**), NDVI annual (**a**,**f**) and the multi-scalar drought indices. The solid black line corresponds to the median, while green asterisks mark the mean. Species' codes correspond to those listed in Table 1.

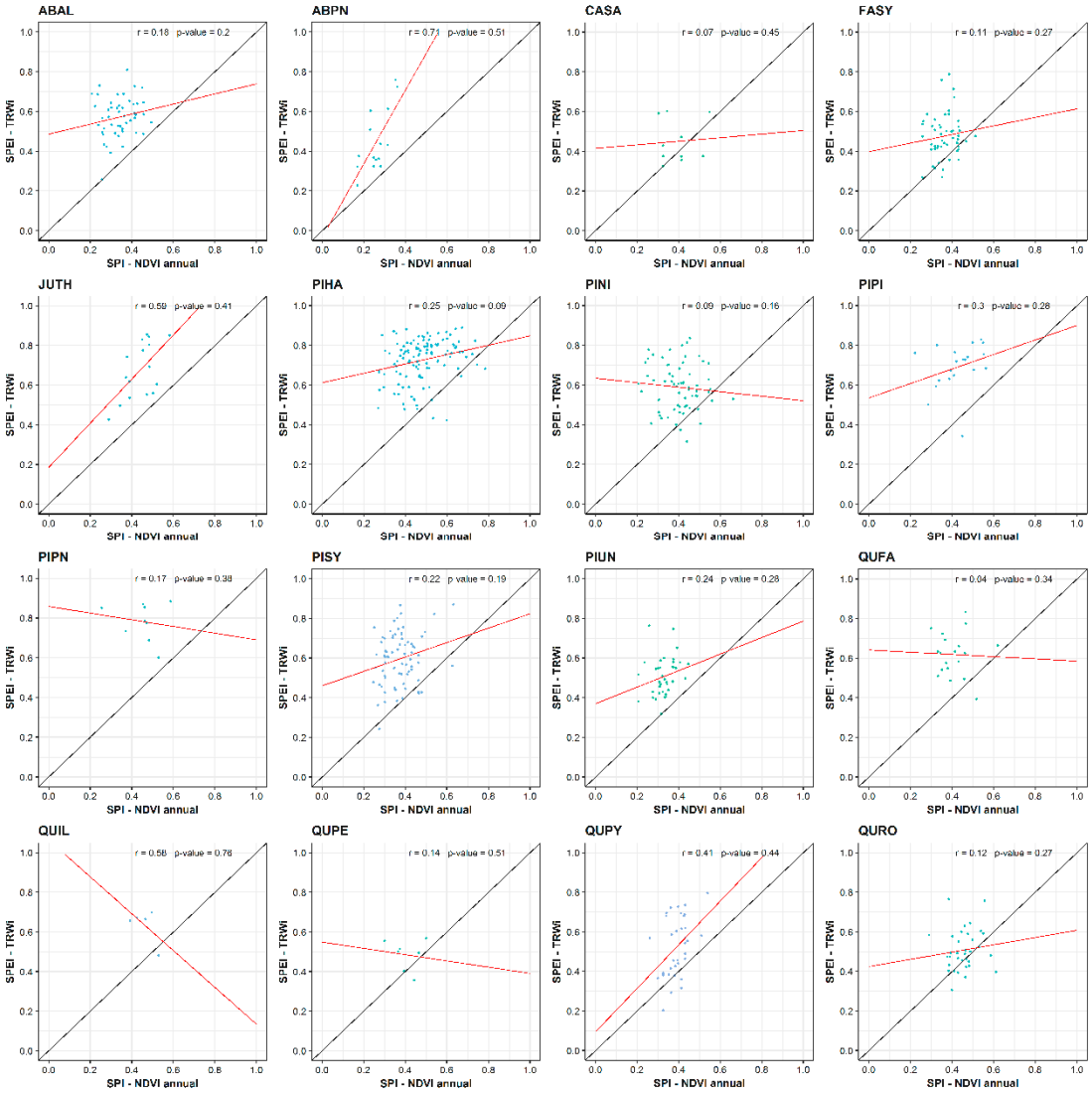

Figure S4. Scatterplots showing the maximum Pearson correlation coefficients found for SPEI-TRWi and SPI-NDVI annual by specie. Dashed red line corresponds to the fitted line of regression model and black line 1:1. Species' codes correspond to those listed in Table 1.

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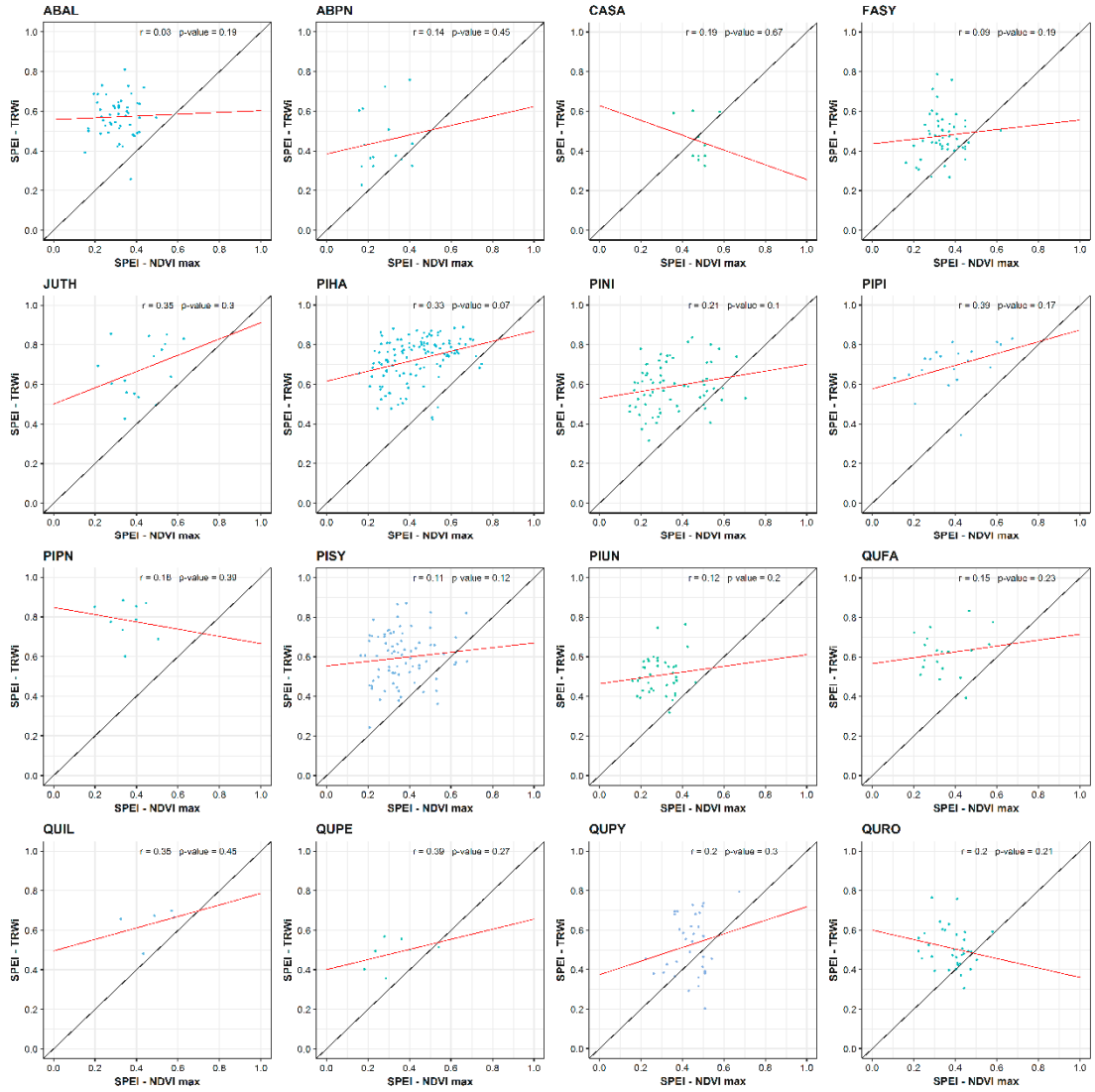

Figure S5. Scatterplots showing the maximum Pearson correlation coefficients found for SPEI-TRWi and SPEI-NDVI max by specie. Dashed red line corresponds to the fitted line of regression model and black line 1:1. Species' codes correspond to those listed in Table 1.

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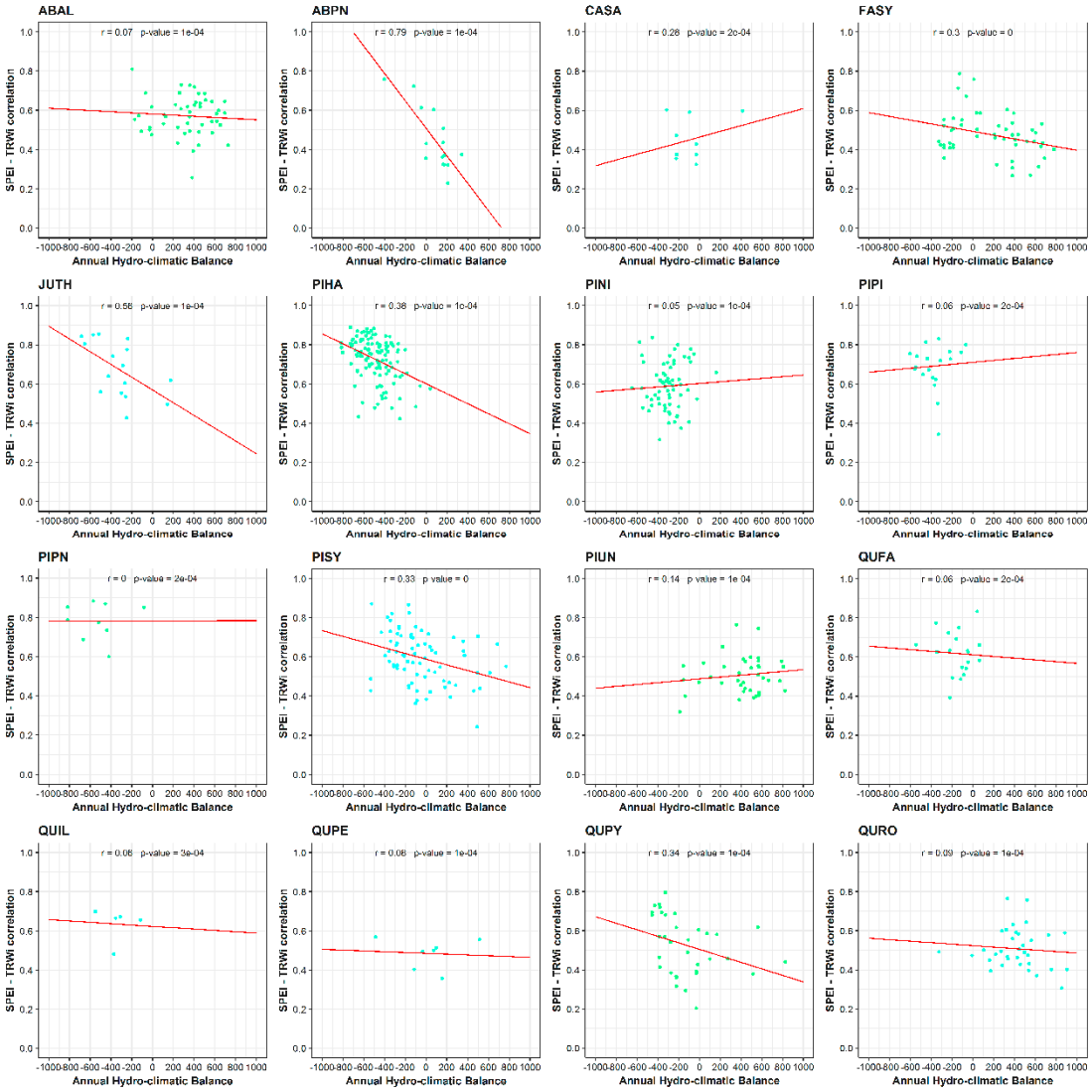

Figure S6. Scatterplots showing the maximum Pearson correlation coefficients found for SPEI-TRWi and the average annual hydro-climatic balance by specie. Dashed red line corresponds to the fitted lines of regression models. Species' codes correspond to those listed in Table 1.

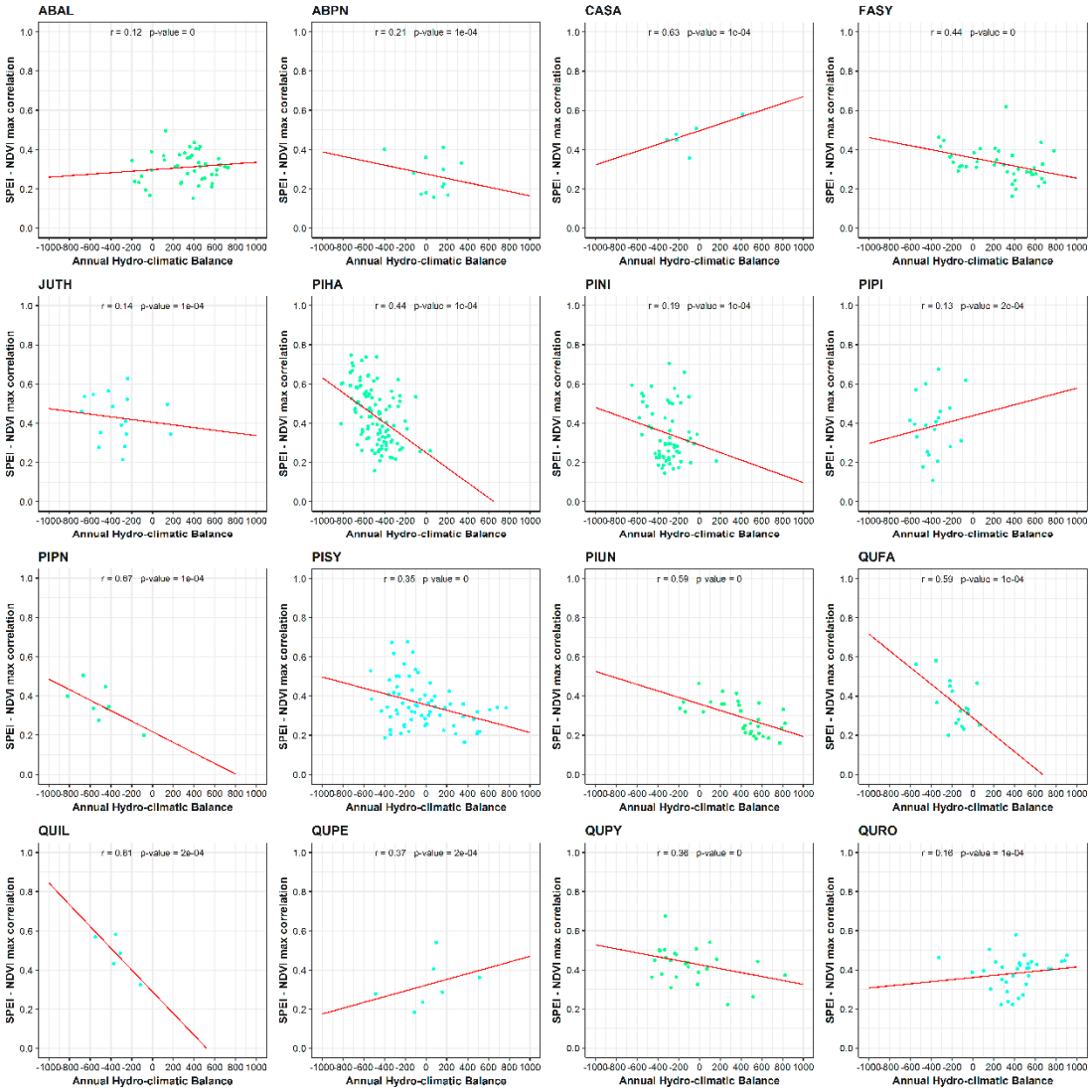

Figure S7. Same as Figure S6, but for SPEI-NDVI max. Species' codes correspond to those listed in Table 1.

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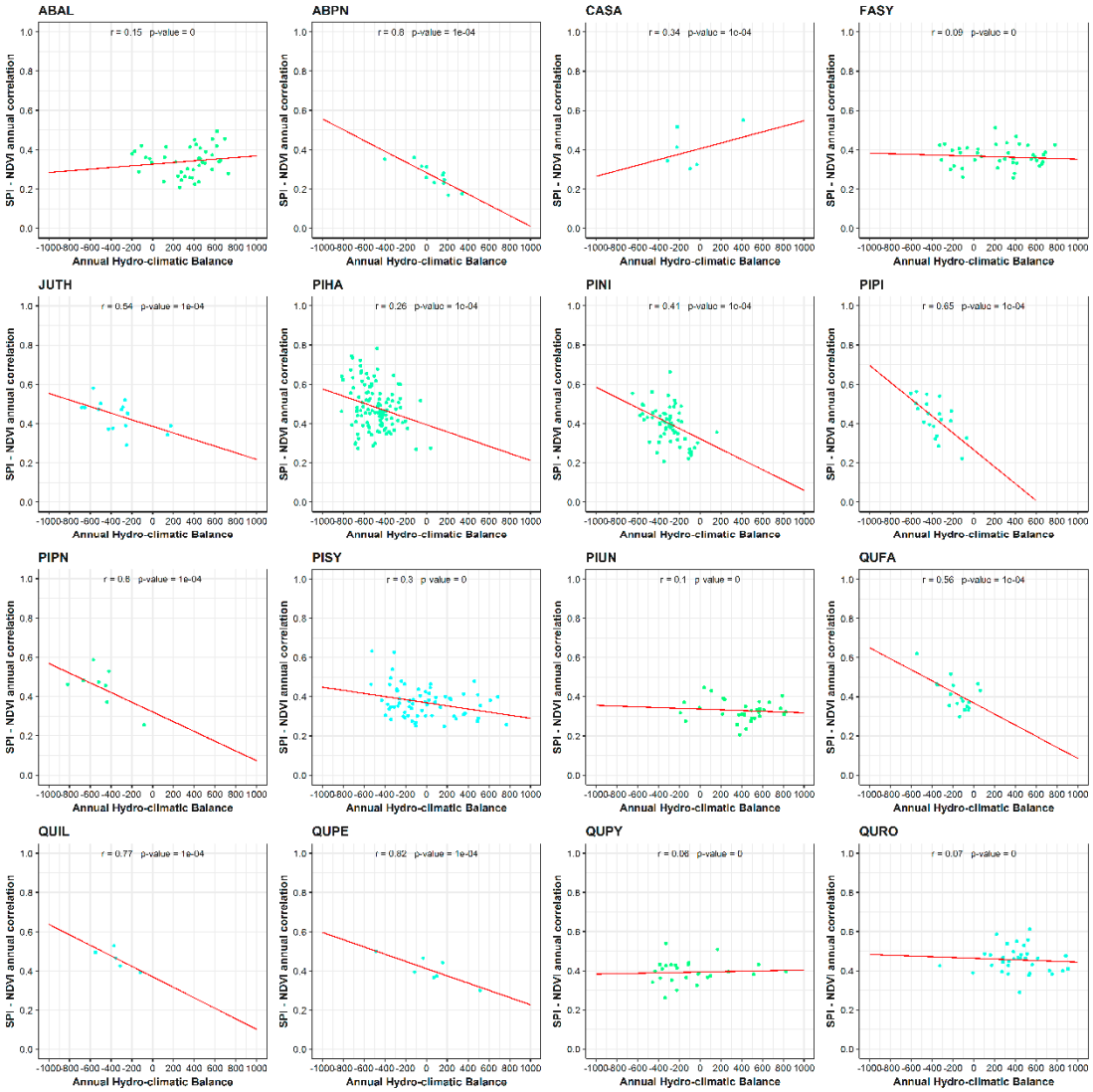

Figure S8. Same as Figure S6, but for SPEI-NDVI annual. Species' codes correspond to those listed in Table 1.

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Table S1. Percentage of sampled forests per drought index and time-scale (number of months) in which the maximum correlation value was found with ring-width indices (TRWi, a), NDVI max (b) and NDVI annual (c). Bold values indicate the maximum percentage for each drought index.

		January	February	March	April	May	June	July	August	September	October	November	December
TRWi	**SPEI**	6.15	3.76	4.27	8.89	7.52	11.79	17.09	12.14	9.06	9.40	5.30	4.62
	SPI	6.50	3.93	3.93	7.52	8.38	12.31	14.02	15.90	9.91	8.38	4.27	4.96
	SPDI	6.84	4.44	5.30	6.84	7.52	9.06	11.97	12.65	10.43	12.65	5.47	6.84
	Total	19.49	12.13	13.5	23.25	23.42	33.16	43.08	40.69	29.4	30.43	15.04	16.42
NDVI max	**SPEI**	5.21	6.84	8.38	21.28	10.94	10.94	3.76	2.39	8.38	7.35	6.32	8.21
	SPI	4.19	10.09	8.38	21.11	10.60	8.38	3.25	3.08	9.40	6.67	6.67	8.21
	SPDI	4.19	8.21	8.21	20.77	11.45	10.09	3.93	2.56	8.03	8.03	7.01	7.52
	Total	13.59	25.14	24.97	63.16	32.99	29.41	10.94	8.03	25.81	22.05	20	23.94
NDVI annual	**SPEI**	3.42	12.48	5.30	3.25	37.61	2.22	7.18	3.59	2.56	3.76	12.65	5.98
	SPI	2.91	11.45	3.42	2.74	32.48	1.03	3.08	3.93	3.59	4.27	25.13	5.98
	SPDI	5.98	15.21	5.30	3.42	20.85	1.20	5.81	7.69	3.08	5.81	17.26	8.38
	Total	12.31	39.14	14.02	9.41	90.94	4.45	16.07	15.21	9.23	13.84	55.04	20.34

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