

Electronic supplementary material

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Supplementary material 1: Correlation between climate variables and models descriptions

Table S1.1: Correlation between climate variables during the growing season

Variables	Mean precip	Mean Temp	Mean water avail	Var precip	Var temp
Mean Temp	0.22				
Mean water avail	0.49	-0.54			
Var precip	0.16	-0.21	0.22		
Var temp	0.30	0.46	-0.05	-0.35	
Var water avail	0.31	-0.46	0.84	0.22	-0.04

Table S1.2: Correlation between extreme climate events (i.e. extreme hot, dry, cold and wet)

Variables	Max precip	Min precip	Min temp	Max temp
Min precip	0.43			
Min temp	0.24	-0.09		
Max temp	-0.43	-0.19	-0.26	
Mean water avail	-0.03	0.04	0.24	-0.13

Table S1.3: Correlation between annual climate variables

Variables	Mean precip	Mean Temp	Mean water avail	Var precip	Var temp
Mean Temp	-0.14				
Mean water avail	0.53	-0.48			
Var precip	-0.86	0.17	-0.32		
Var temp	0.26	-0.46	-0.11	-0.22	
Var water avail	0.31	-0.41	0.89	-0.19	-0.16

Table S1.4: Correlation between long-term climate variables

Variables	Mean precip	Mean Temp	Mean water avail	Var precip	Var temp
Mean Temp	0.08				
Mean water avail	0.84	-0.25			
Var precip	-0.38	0.30	-0.42		
Var temp	-0.15	-0.54	-0.03	-0.25	
Var water avail	0.71	-0.02	0.78	-0.01	-0.18

Table S1.5: Details on climate variables for each model. Notice that each climate variable interacts with species' provenance (native or non-native). Climate-only models only include two-way interactions between climate variables and species provenance, while models that include climate variables and the nutrients treatments (N, P, K and their combinations), include two way interactions for species' provenance and climate variables or nutrient treatments, and three-way interactions between climate variables, nutrient treatments and species' provenance. When two or more variables were collinear alternate models that did not include the collinear variables were fitted (see methods). In the first column, between parentheses are the collinear variable retained in each models.

Model	Climate models
	Climate predictors
Growing season	
Mean	(mean pre + mean temp + water avail) · provenance
Var	(var pre + var temp + var water avail) · provenance
Mean + Var (water avail)	(mean pre + mean temp + water avail + var pre + var temp) · provenance
Mean + Var (var water avail)	(mean pre + mean temp + var pre + var temp + var water avail) · provenance
Annual extreme events	
Extreme events	(dry + wet + hot + cold) · provenance + water avail
Annual	
Mean	(mean pre + mean temp + water avail) · provenance
Var	(var pre + var temp + var water avail) · provenance
Mean + Var (mean pre and water avail)	(mean pre + mean temp + water avail + var temp) · provenance
Mean + Var (mean pre and var water avail)	(mean pre + mean temp + var temp + var water avail) · provenance
Mean + Var (var pre and water avail)	(mean temp + water avail + var pre + var temp) · provenance
Mean + Var (var pre and var water avail)	(mean temp + var pre + var temp + var water avail) · provenance
Long-term	
Mean (mean pre)	(mean pre + mean temp) · provenance
Mean (water avail)	(mean temp + water avail) · provenance
Var	(var pre + var temp + var water avail) + provenance
Mean + Var (mean pre)	(mean pre + mean temp + var temp + var pre) · provenance
Mean + Var (water avail)	(mean temp + water avail + var pre + var temp) · provenance
Mean + Var (var water avail)	(mean temp + var pre + var temp + var water avail) · provenance

Supplementary material 2: Comparison of the effect of climate, nutrient and their interaction on non-native and native species

Table S2.1: Comparison of regression models used to describe the influence of growing season, annual and long-term climate variables on richness and abundance of native and non-native species under natural conditions. Shown are values of ΔAIC (comparison of AIC values to the best model AIC; $\Delta AIC = AIC_{modeli} - minAIC$). The ΔAIC score for the best models are in bold (treshold for ΔAIC is $\Delta AIC > 2$). Mean refers to models including only mean climate variables, Var refers to models only including variance of the same climate variables, Mean + var are models that include both type of climate variables. Extreme events are models that include the number of extreme hot, cold, wet and dry events.

Model	Richness models		Abundance models	
	k	ΔAIC	k	ΔAIC
Growing season				
Mean	9	6.28	9	28.58
Var	9	7.07	9	17.52
Mean + Var (water avail)	13	8.46	13	21.84
Mean + Var (var water avail)	13	5.94	13	18.65
Annual extreme events				
Extreme events	12	7.07	12	19.71
Annual				
Mean	9	6.75	9	18.77
Var	9	7.07	9	17.13
Mean + Var (mean pre and water avail)	11	9.57	11	19.15
Mean + Var (mean pre and var water avail)	11	9.66	11	20.44
Mean + Var (var pre and water avail)	11	9.59	11	19.03
Mean + Var (var pre and var water avail)	11	9.09	11	17.96
Long-term				
Mean (mean pre)	7	12.85	7	24.85
Mean (water avail)	7	13.08	7	25.47
Var	9	2.31	9	5.64
Mean + Var (mean pre)	11	0.20	11	0.00
Mean + Var (water avail)	11	0.00	11	4.84
Mean + Var (var water avail)	11	2.46	11	8.28

Table S2.2: Effect of long-term climate variables on non-native and native species richness. Results for both the best and second best models are presented as these models are indistinguishable from each other based on ΔAIC scores.

Terms	Log ratio chisq	d.f.	P
Best model ($\Delta\text{AIC} = 0$)			
Mean temp	0.02	1	0.88
Var temp	0.12	1	0.73
Var pre	1.67	1	0.20
Water avail	0.06	1	0.80
Local provenance	50.09	1	< 0.0001
Mean temp · Local provenance	2.69	1	0.10
Var temp · Local provenance	2.67	1	0.10
Var pre · Local provenance	14.15	1	0.0002
Water avail · Local provenance	2.75	1	0.10
Second best model ($\Delta\text{AIC} = 0.20$)			
Mean temp	0.002	1	0.97
Mean pre	0.98	1	0.32
Var temp	0.05	1	0.82
Var pre	2.41	1	0.12
Local provenance	50.95	1	< 0.0001
Mean temp · Local provenance	4.59	1	0.03
Mean pre · Local provenance	1.62	1	0.20
Var temp · Local provenance	3.62	1	0.06
Var pre · Local provenance	13.30	1	0.0003

Table S2.3: Coefficients estimates, standard errors, and 2.5% and 97.5% confidence intervals for the effect of long-term climate variables on non-native and native species richness. Results for both the best and second best models are presented as these models are indistinguishable from each other based on ΔAIC scores.

Terms	Estimates	S.E.	2.5% CI	97.5% CI
Best model (DeltaAIC = 0)				
Mean temp	-0.05	0.03	-0.12	0.03
Var temp	-1.37	0.92	-3.14	0.45
Var pre	59.64	16.57	25.59	95.64
Water avail	0.32	0.23	-0.15	0.81
Local provenance (native)	0.94	1.08	-1.27	3.11
Mean temp · Local provenance (native)	0.08	0.05	-0.02	0.17
Var temp · Local provenance (native)	1.95	1.26	-0.39	4.30
Var pre · Local provenance (native)	-92.83	23.11	-141.09	-44.71
Water avail · Local provenance (native)	-0.56	0.32	-1.21	0.10
Second best model (DeltaAIC = 0.20)				
Mean temp	-0.06	0.03	-0.13	0.01
Mean pre	0.99	0.64	-0.22	2.17
Var temp	-1.45	0.91	-3.16	0.31
Var pre	61.45	16.92	27.55	97.30
Local provenance (native)	3.18	2.80	-2.26	8.58
Mean temp · Local provenance (native)	0.10	0.04	0.01	0.19
Mean pre · Local provenance (native)	-1.08	0.88	-2.75	0.59
Var temp · Local provenance (native)	2.22	1.24	-0.07	4.50
Var pre · Local provenance (native)	-89.46	23.57	-137.40	-41.62

Table S2.4: Effect of long-term mean and variance in climate on non-native and native species abundance.

Terms	Sum Sq	d.f.	F-value	P-value
Mean pre	1.23	1	2.20	0.14
Mean temp	0.43	1	0.78	0.38
Var temp	0.47	1	0.84	0.36
Var pre	1.55	1	2.77	0.10
Local provenance	8.67	1	15.50	0.0002
Mean pre · Local provenance	4.64	1	8.29	0.005
Mean temp · Local provenance	0.31	1	0.56	0.46
Var temp · Local provenance	0.03	1	0.05	0.83
Var pre · Local provenance	16.97	1	30.32	< 0.0001
Residuals	50.37	90		

Table S2.5: Coefficients estimates, standard errors, and 2.5% and 97.5% confidence intervals for the effect of long-term climate variables on non-native and native species abundance.

Terms	Estimates	S.E.	2.5% CI	97.5% CI
Mean pre	1.936	0.63	0.69	3.18
Mean temp	0.003	0.03	-0.06	0.07
Var temp	0.436	0.88	-1.32	2.19
Var pre	86.588	17.07	52.67	120.51
Local provenance (native)	8.836	2.84	3.20	14.47
Mean pre · Local provenance (native)	-2.556	0.89	-4.32	-0.79
Mean temp · Local provenance (native)	0.034	0.05	-0.06	0.12
Var temp · Local provenance (native)	0.272	1.25	-2.21	2.75
Var pre · Local provenance (native)	-132.952	24.15	-180.92	-84.98

Table S2.6: Comparison of models used to describe the influence of growing season, annual and long-term climate variables on change in richness and abundance of native and non-native species under natural conditions. Shown are values of ΔAIC (comparison of AIC values to the best model AIC; $\Delta AIC = AIC_{modeli} - minAIC$). The ΔAIC score for the best models are in bold (treshold for ΔAIC is $\Delta AIC > 2$). Mean refers to models including only mean climate variables, Var refers to models only including variance in the same climate variables, Mean + var are models that include both type of climate variables. Extreme events are models that include the number of extreme hot, cold, wet and dry days.

Model	Change richness		Change abundance	
	k	ΔAIC	k	ΔAIC
Growing season				
Mean	12	30.20	12	22.40
Var	12	54.30	12	29.40
Mean + var (water avail)	16	48.90	16	30.80
Mean + var (var water avail)	16	49.30	16	30.30
Annual extreme events				
Extreme events	15	62.90	15	36.10
Annual				
Mean	12	30.20	12	16.20
Var	12	43.70	12	26.30
Mean + var (mean pre and water avail)	14	41.10	14	23.60
Mean + var (mean pre and var water avail)	14	50.70	14	29.20
Mean + var (var pre and water avail)	14	35.10	14	22.70
Mean + var (var pre and var water avail)	14	47.50	14	29.70
Long-term				
Mean (mean pre)	10	0.00	10	2.13
Mean (water avail)	10	8.03	10	0.00
Var	12	24.10	12	24.10
Mean + var (mean pre)	14	5.20	14	8.91
Mean + var (water avail)	14	19.30	14	5.34
Mean + var (var water avail)	14	28.20	14	20.90

Table S2.7: Effect of long-term mean climate variables on non-native and native species richness.

Terms	Chisq	d.f.	P-value
Mean pre	1.827	1	0.18
Mean temp	0.70	1	0.40
Local provenance	29.72	1	< 0.0001
Year of trt	1.33	1	0.25
Mean pre · Local provenance	38.68	1	< 0.0001
Mean temp · Local provenance	15.14	1	0.0001

Table S2.8: Coefficients estimates, standard errors and 2.5% and 97.5% confidence intervals for the effect of long-term mean climate variables on non-native and native species change in richness.

Terms	Estimates	S.E.	2.5% CI	97.5% CI
Mean pre	0.07	0.05	-0.03	0.16
Mean temp	0.04	0.05	-0.06	0.15
Local provenance (native)	0.11	0.02	0.07	0.15
Year of trt	-0.03	0.02	-0.07	0.02
Mean pre · Local provenance (native)	-0.26	0.04	-0.34	-0.18
Mean temp · Local provenance (native)	-0.16	0.04	-0.24	-0.08

Table S2.9: Effect of long-term mean climate variables on non-native and native species change in abundance.

Terms	Chi Sq	d.f.	P-value
Mean temp	1.70	1	0.19
Water avail	1.66	1	0.20
Local provenance	47.78	1	< 0.0001
Year of trt	0.69	1	0.41
Mean temp · Local Provenance	13.58	1	0.0002
Water avail · Local Provenance	21.74	1	< 0.0001

Table S2.10: Coefficients estimates, standard errors, 2.5% and 97.5% confidence intervals for the effect of long-term mean climate variables on non-native and native species change in abundance.

Terms	Estimates	S.E.	2.5% CI	97.5% CI
Mean temp	0.16	0.12	-0.07	0.39
Water avail	0.14	0.11	-0.08	0.35
Local provenance (native)	0.36	0.05	0.25	0.46
Year of trt	-0.04	0.05	-0.15	0.06
Mean temp · Local provenance (native)	-0.41	0.11	-0.63	-0.19
Water avail · Local provenance (native)	-0.52	0.11	-0.73	-0.30

Table S2.11: Effect of nutrient enrichment (N,P,K and their combinations) on non-native and native species' change in richness

Terms	Chi sq	d.f.	P-value
Nutrient treatment	23.58	7	0.001
Local provenance	10.11	1	0.001
Year of trt of treatment	6.08	1	0.01
Nutrient treatment · Local Provenance	44.46	7	< 0.0001

Table S2.12: Coefficients estimates, standard errors and 2.5 and 97.5 confidence intervals for the effect of nutrient treatments (N,P,K and their combinations) on non-native and native species change in richness.

Terms	Estimates	S.E.	2.5% CI	97.5% CI
N	0.03	0.02	-0.002	0.06
P	0.04	0.02	0.009	0.07
K	0.04	0.02	0.009	0.07
NP	0.003	0.02	-0.03	0.04
NK	0.04	0.02	0.005	0.07
PK	0.04	0.02	0.006	0.07
NPK	-0.01	0.02	-0.04	0.02
Local provenance	0.14	0.02	0.09	0.18
Year of treatment	-0.04	0.02	-0.08	-0.009
N · Local Provenance	-0.11	0.03	-0.18	-0.05
P · Local Provenance	-0.11	0.03	-0.17	-0.04
K · Local Provenance	-0.09	0.03	-0.15	-0.02
NP · Local Provenance	-0.10	0.03	-0.17	-0.04
NK · Local Provenance	-0.17	0.03	-0.24	-0.11
PK · Local Provenance	-0.11	0.03	-0.17	-0.04
NPK · Local Provenance	-0.19	0.03	-0.26	-0.13

Figure S2.1: Effect of nutrient enrichment (N,P,K and their combinations) on non-native and native species' change in richness.

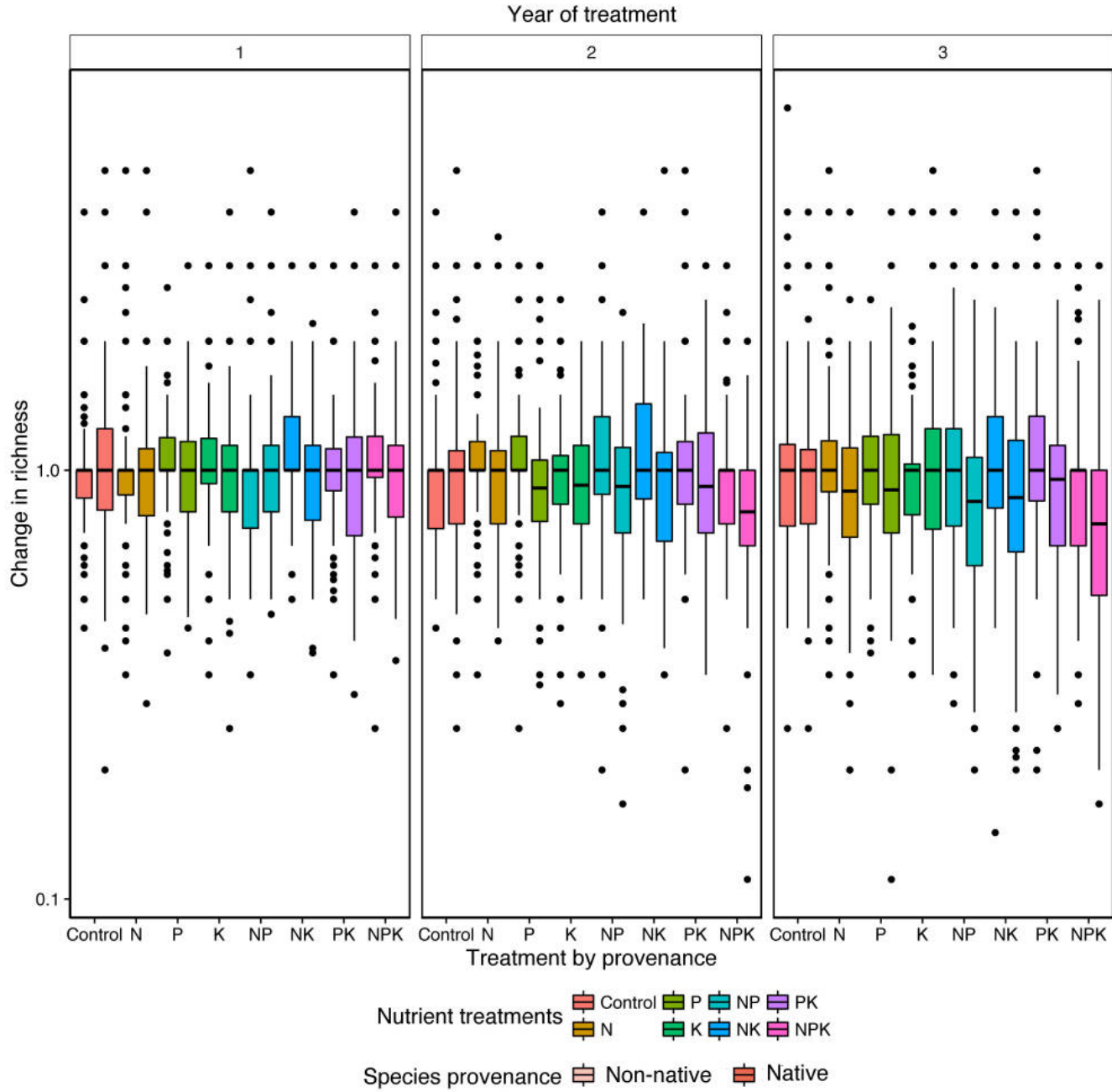


Table S2.13: Effect of nutrient enrichment (N,P,K and their combinations) on non-native and native species' change in abundance

Terms	Chi sq	d.f.	P-value
Nutrient treatment	30.57	7	< 0.0001
Local provenance	11.12	1	0.0009
Year of treatment	0.77	1	0.38
Nutrient treatment · Local Provenance	54.92	7	< 0.0001

Table S2.14: Coefficients estimates, standard errors and 2.5% and 97.5% confidence intervals for the effect of nutrient treatments (N,P,K and their combinations) on non-native and native species change in abundance.

Terms	Estimates	S.E.	2.5% CI	97.5% CI
N	0.13	0.04	0.06	0.20
P	0.11	0.04	0.04	0.18
K	0.11	0.04	0.04	0.18
NP	0.14	0.04	0.07	0.22
NK	0.19	0.04	0.11	0.26
PK	0.14	0.04	0.06	0.21
NPK	0.11	0.04	0.04	0.18
Local provenance	0.34	0.05	0.24	0.44
Year of treatment	-0.03	0.03	-0.09	0.03
N · Local Provenance	-0.26	0.07	-0.41	-0.12
P · Local Provenance	-0.27	0.07	-0.42	-0.12
K · Local Provenance	-0.21	0.07	-0.36	-0.07
NP · Local Provenance	-0.35	0.07	-0.49	-0.20
NK · Local Provenance	-0.34	0.07	-0.49	-0.20
PK · Local Provenance	-0.28	0.07	-0.43	-0.14
NPK · Local Provenance	-0.52	0.07	-0.66	-0.37

Figure S2.2: Effect of nutrient enrichment (N,P,K and their combinations) on non-native and native species' change in abundance.

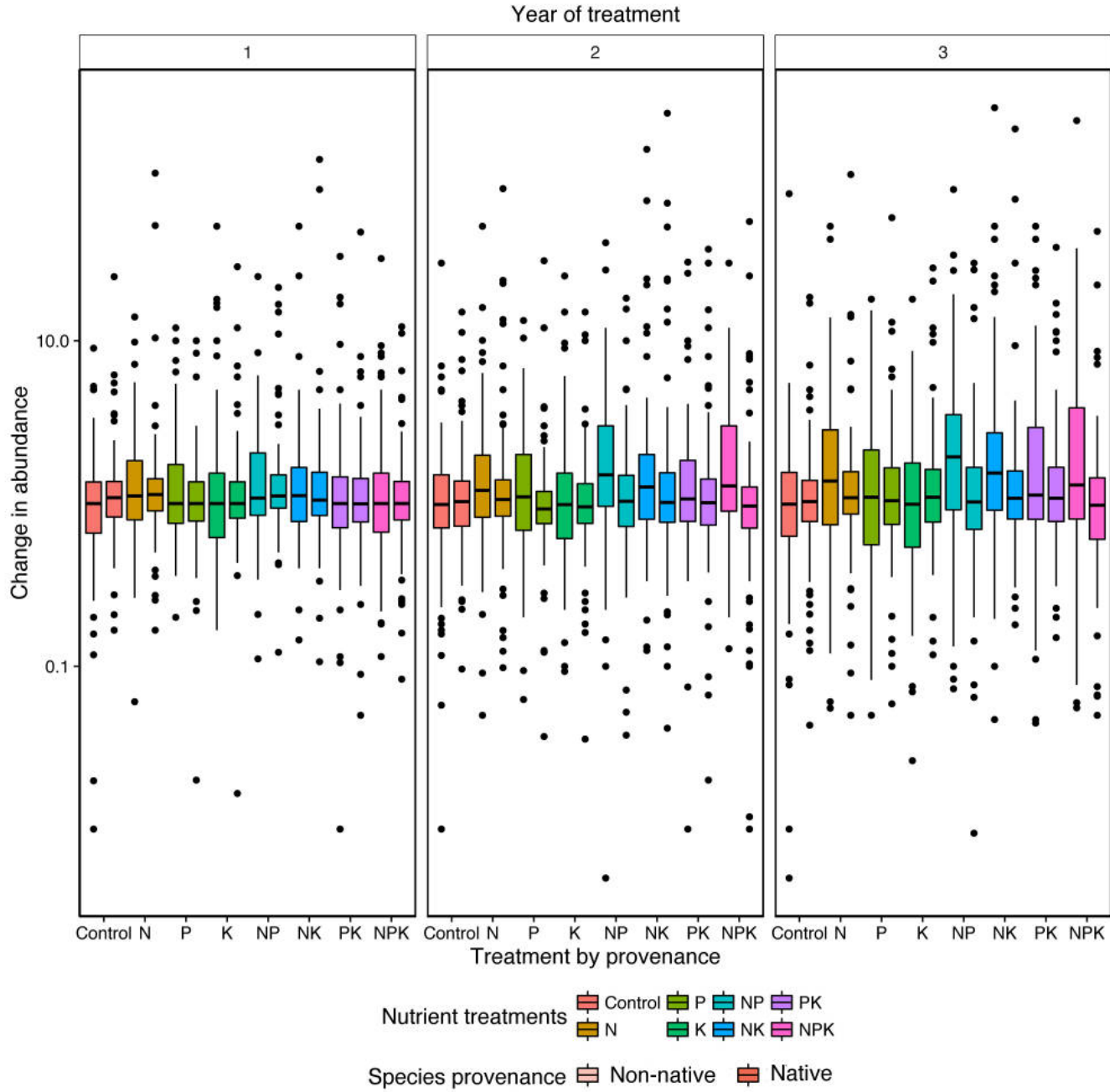


Table S2.15: Comparison of models used to describe the influence of growing season, annual and long-term climate variables on change in richness and abundance of native and non-native species under nutrient enrichment treatments (N, P, K and their combinations). Shown are values of ΔAIC (comparison of AIC values to the best model AIC; $\Delta AIC = AIC_{modeli} - \min AIC$). The ΔAIC score for the best models are in bold. Mean refers to models including only mean climate variables, Var refers to models only including variance in the same climate variables, Mean + var are models that include both type of climate variables. Extreme events are models that include the number of extreme hot, cold, wet and dry days.

Model	Change richness		Change abundance	
	k	ΔAIC	k	ΔAIC
Growing season				
Mean	68	305.0	68	202.0
Var	68	441.0	68	289.0
Mean + var (water avail)	100	462.0	100	308.0
Mean + var (var water avail)	100	475.0	100	311.0
Annual extreme events				
Extreme events	85	19.1	85	10.8
Annual				
Mean	68	343.0	68	0.0
Var	68	47.6	68	51.9
Mean + var (mean pre and water avail)	84	15.8	84	15.6
Mean + var (mean pre and var water avail)	84	36.3	84	25.5
Mean + var (var pre and water avail)	84	0.0	84	11.3
Mean + var (var pre and var water avail)	84	27.0	84	28.0
Long-term				
Mean (mean pre)	52	247.0	52	167.0
Mean (water avail)	52	245.0	52	152.0
Var	68	335.0	68	254.0
Mean + var (mean pre)	84	336.0	84	204.0
Mean + var (water avail)	84	340.0	84	169.0
Mean + var (var water avail)	84	369.0	84	203.0

Table S2.16: Effect of nutrient enrichment (N,P,K and their combinations), annual climate variables and their interaction on non-native and native species' change in richness.

Terms	Chi sq	d.f.	P-value
Var pre	0.39	1	0.53
Mean temp	0.46	1	0.49
Water avail	1.06	1	0.30
Var temp	0.01	1	0.94
Local provenance	10.15	1	0.001
Nut trt	24.64	7	0.0009
Year of trt	5.92	1	0.02
Var pre · Local provenance	9.19	1	0.002
Mean temp · Local provenance	35.86	1	< 0.0001
Water avail · Local provenance	16.09	1	0.0001
Var temp · Local provenance	11.27	1	0.0008
Var pre · Nut trt	11.43	7	0.12
Mean temp · Nut trt	7.10	7	0.42
Water avail · Nut trt	6.22	7	0.51
Var temp · Nut trt	5.85	7	0.56
Local provenance · Nut trt	47.53	7	< 0.0001
Var pre · Local provenance · Nut trt	7.17	7	0.41
Mean temp · Local provenance · Nut trt	22.73	7	0.002
Water avail · Local provenance · Nut trt	24.74	7	0.0008
Var temp · Local provenance · Nut trt	7.99	7	0.33

Table S2.17: Coefficients estimates, standard errors and 2.5% and 97.5% confidence intervals for the effect of climate, nutrient treatments (N,P,K and their combinations) and their interaction on non-native and native species change in richness. Only significant second and third higher order interactions and their main terms are included in the table (see Anova table for this model above).

Terms	Estimates	S.E.	2.5% CI	97.5% CI
Var pre	0.06	0.03	-0.009	0.12
Mean temp	0.04	0.04	-0.04	0.12
Water avail	0.04	0.03	-0.02	0.10
Var temp	-0.001	0.04	-0.08	0.08
Local provenance	0.15	0.02	0.10	0.19
N	0.03	0.02	-0.001	0.06
P	0.04	0.02	0.01	0.08
K	0.04	0.02	0.01	0.08
NP	0.004	0.02	-0.03	0.04
NK	0.04	0.02	0.009	0.07
PK	0.04	0.02	0.009	0.07
NPK	-0.009	0.02	-0.04	0.02
Year trt	-0.05	0.02	-0.08	-0.009
Var pre · Local Provenance	-0.11	0.05	-0.21	-0.02
Mean temp · Local Provenance	-0.19	0.05	-0.29	-0.08
Water avail · Local Provenance	-0.17	0.04	-0.24	-0.10
Var temp · Local Provenance	0.05	0.05	-0.05	0.16
Mean temp · N	-0.02	0.04	-0.09	0.06
Mean temp · P	0.001	0.04	-0.08	0.08
Mean temp · K	-0.03	0.04	-0.11	0.04

Table S2.17: *(continued)*

Terms	Estimates	S.E.	2.5% CI	97.5% CI
Mean temp · NP	-0.02	0.04	-0.10	0.06
Mean temp · NK	-0.04	0.04	-0.12	0.04
Mean temp · PK	0.03	0.04	-0.05	0.11
Mean temp · NPK	-0.06	0.04	-0.14	0.01
Water avail · N	0.005	0.03	-0.06	0.07
Water avail · P	-0.02	0.03	-0.09	0.04
Water avail · K	-0.002	0.03	-0.07	0.06
Water avail · NP	-0.003	0.03	-0.07	0.06
Water avail · NK	-0.002	0.03	-0.07	0.06
Water avail · PK	-0.04	0.03	-0.10	0.03
Water avail · NPK	-0.06	0.03	-0.12	0.008
Local provenance (native) · N	-0.130	0.03	-0.19	-0.07
Local provenance (native) · P	-0.12	0.03	-0.19	-0.06
Local provenance (native) · K	-0.10	0.03	-0.16	-0.04
Local provenance (native) · NP	-0.12	0.03	-0.18	-0.05
Local provenance (native) · NK	-0.19	0.03	-0.25	-0.12
Local provenance (native) · PK	-0.12	0.03	-0.18	-0.06
Local provenance (native) · NPK	-0.20	0.03	-0.26	-0.14
Mean temp · Local provenance (native) · N	-0.007	0.08	-0.16	0.15
Mean temp · Local provenance (native) · P	0.03	0.08	-0.12	0.19

Table S2.17: *(continued)*

Terms	Estimates	S.E.	2.5% CI	97.5% CI
Mean temp · Local provenance (native) · K	0.20	0.08	0.05	0.35
Mean temp · Local provenance (native) · NP	-0.07	0.08	-0.23	0.08
Mean temp · Local provenance (native) · NK	0.20	0.08	0.05	0.36
Mean temp · Local provenance (native) · PK	0.03	0.08	-0.13	0.18
Mean temp · Local provenance (native) · NPK	0.14	0.08	-0.01	0.29
Water avail · Local provenance (native) · N	0.06	0.07	-0.07	0.19
Water avail · Local provenance (native) · P	0.19	0.07	0.06	0.31
Water avail · Local provenance (native) · K	0.17	0.07	0.04	0.29
Water avail · Local provenance (native) · NP	-0.007	0.06	-0.13	0.12
Water avail · Local provenance (native) · NK	0.18	0.07	0.05	0.30
Water avail · Local provenance (native) · PK	0.07	0.07	-0.06	0.20
Water avail · Local provenance (native) · NPK	0.24	0.07	0.11	0.37

Figure S2.3: Effect of nutrient enrichment (N,P,K and their combinations), annual mean climate variables and their interaction on non-native and native species' change in richness.

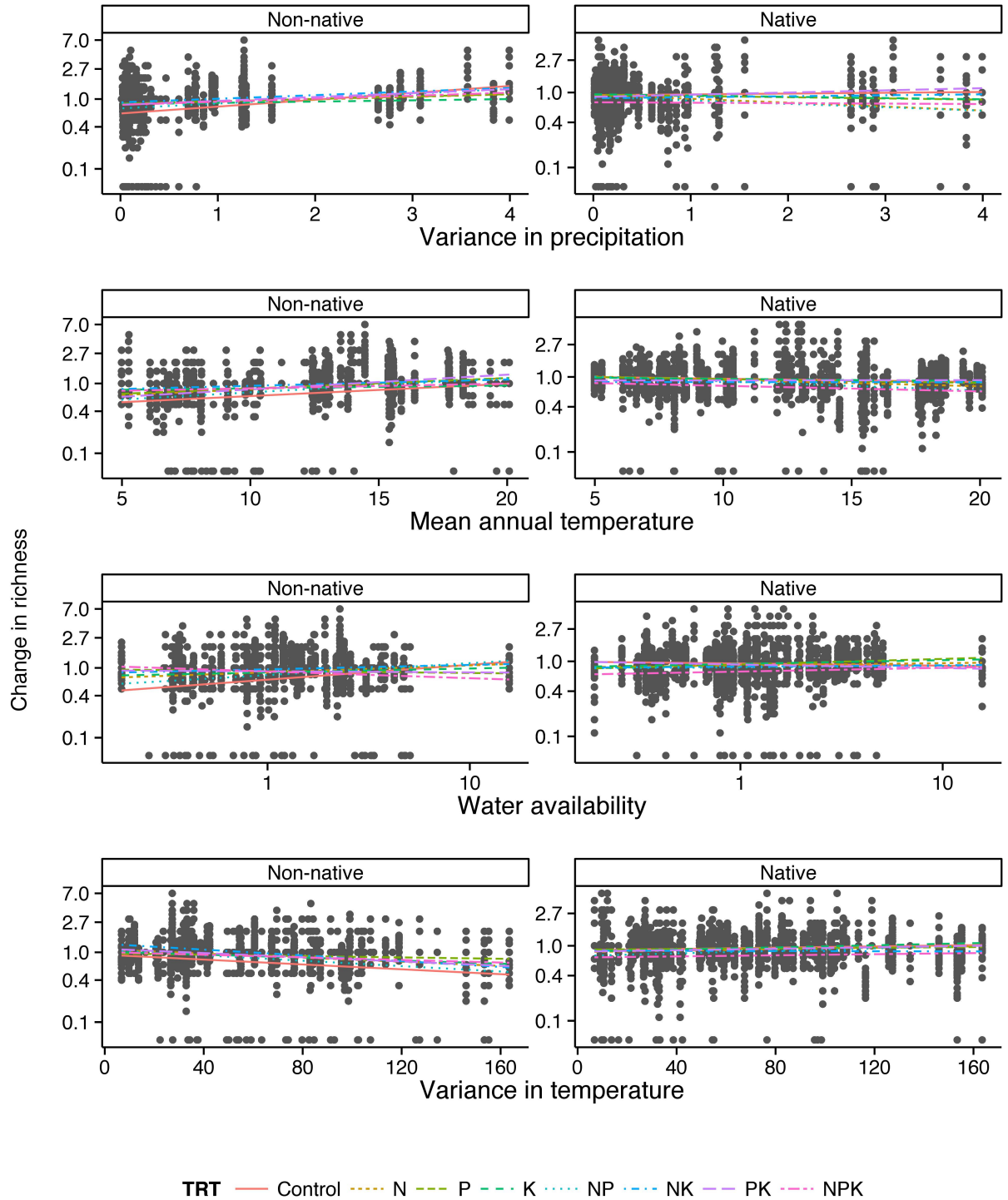


Table S2.18: Effect of nutrient enrichment (N,P,K and their combinations), annual mean climate variables and their interaction on non-native and native species' change in abundance.

Terms	Chi sq	d.f.	P-value
Mean pre	7.17	1	0.007
Mean temp	2.29	1	0.13
Water avail	0.47	1	0.49
Local provenance	10.38	1	0.001
Nut trt	31.55	7	< 0.001
Year of trt	2.79	1	0.09
Mean pre · Local provenance	0.01	1	0.93
Mean temp · Local provenance	66.94	1	< 0.0001
Water avail · Local provenance	13.00	1	0.0003
Mean pre · Nut trt	10.07	7	0.19
Mean temp · Nut trt	6.86	7	0.44
Water avail · Nut trt	3.76	7	0.81
Local provenance · Nut trt	58.37	7	< 0.0001
Mean pre · Local provenance · Nut trt	6.05	7	0.53
Mean temp · Local provenance · Nut trt	13.46	7	0.06
Water avail · Local provenance · Nut trt	13.60	7	0.06

Table S2.19: Coefficients estimates, standard errors and 2.5% and 97.5% confidence intervals for the effect of nutrient treatments (N,P,K and their combinations), annual mean climate variables and their interactions on non-native and native species change in abundance. Estimates for non-significant two and three way interactions including nutrient treatments were excluded from this table.

Terms	Estimates	S.E.	2.5% CI	97.5% CI
Mean pre	0.04	0.07	-0.10	0.17
Mean temp	0.14	0.07	0.002	0.28
Water avail	0.08	0.06	-0.04	0.19
Local provenance	0.36	0.05	0.26	0.46
N	0.13	0.04	0.06	0.21
P	0.11	0.04	0.04	0.19
K	0.11	0.04	0.04	0.18
NP	0.15	0.04	0.08	0.22
NK	0.19	0.04	0.12	0.26
PK	0.14	0.04	0.07	0.22
NPK	0.11	0.04	0.04	0.18
Year trt	-0.06	0.03	-0.12	0.01
Mean pre · Local provenance	0.05	0.11	-0.16	0.25
Mean temp · Local provenance	-0.39	0.11	-0.60	-0.17
Water avail · Local provenance	-0.32	0.08	-0.49	-0.16
Local provenance (native) · N	-0.30	0.07	-0.45	-0.16
Local provenance (native) · P	-0.29	0.07	-0.44	-0.15
Local provenance (native) · K	-0.24	0.07	-0.38	-0.10
Local provenance (native) · NP	-0.38	0.07	-0.53	-0.24
Local provenance (native) · NK	-0.36	0.07	-0.51	-0.22
Local provenance (native) · PK	-0.31	0.07	-0.45	-0.16
Local provenance (native) · NPK	-0.53	0.07	-0.68	-0.39

Figure S2.4: Effect of nutrient enrichment (N,P,K and their combinations), annual mean climate variables and their interaction on non-native and native species' change in abundance.

