Model	**Formula**
Model 2	Rich ~ Season + Location + (1 | Year)
Model 1	Rich ~ Season * Location + (1 | Year)

Table 1: Model Formulas

Model	**npar**	**AIC**	**BIC**	**logLik**	**Deviance**	**Chisq**	**P-value**
model_2	7	2143.1	2169.8	-1064.5	2129.1	20.840	0.0001137 ***
model_1	13	2122.2	2171.9	-1048.1	2096.2	32.795	1.148e-05 ***

Table 2: Model Comparison Statistics

Fromula: $Richness \sim Season \cdot Location + (1|Year)(family: Poisson)$

Table 3: Fixed Effects Estimates

	Estimate	Std. Error	z value	P-value
Autumn - Bal (**Intercept**)	2.74873	0.10217	26.903	<**0.001**
Season(Spring)	0.02136	0.06039	0.354	0.723
Season(Summer)	0.05594	0.05898	0.948	0.343
Location(Ber)	0.11000	0.07983	1.378	0.168
Location(Fra)	-0.04389	0.07116	-0.617	0.537
Location(Old)	-0.01569	0.07596	-0.207	0.836
Season(Spring)·Location(Ber)	0.26276	0.09082	2.893	**0.004**
Season(Summer)·Location(Ber)	0.09709	0.09605	1.011	0.312
Season(Spring)·Location(Fra)	0.36180	0.08780	4.121	<**0.001**
Season(Summer)·Location(Fra)	0.31855	0.09565	3.330	<**0.001**
Season(Spring)·Location(Old)	0.03562	0.09822	0.363	0.717
Season(Summer)·Location(Old)	0.26604	0.12403	2.145	**0.032**

Table 4: Post hoc pairwise comparison of estimated marginal means (emmeans) using a Tukey adjustment for multiple comparisons. Contrast estimates for different locations (Years random effect)

	Estimate	SE	df	p.value
Location = BA:				
Autumn - Spring	-0.02136	0.0604	-0.354	0.9333
Autumn - Summer	-0.05594	0.0590	-0.948	0.6096
Spring - Summer	-0.03457	0.0584	-0.592	0.8244
Location = BE:				
Autumn - Spring	-0.28412	0.0643	-4.419	**<0.0001**
Autumn - Summer	-0.15303	0.0753	-2.032	0.1047
Spring - Summer	0.13109	0.0526	2.492	**0.0340**
Location = FR:				
Autumn - Spring	-0.38316	0.0639	-6.000	**<0.0001**
Autumn - Summer	-0.37449	0.0747	-5.012	**<0.0001**
Spring - Summer	0.00867	0.0702	0.124	0.9916
Location = OL:				
Autumn - Spring	-0.05698	0.0775	-0.736	0.7423
Autumn - Summer	-0.32198	0.1090	-2.962	**0.0086**
Spring - Summer	-0.26500	0.1080	-2.456	**0.0374**