

Supplementary Information

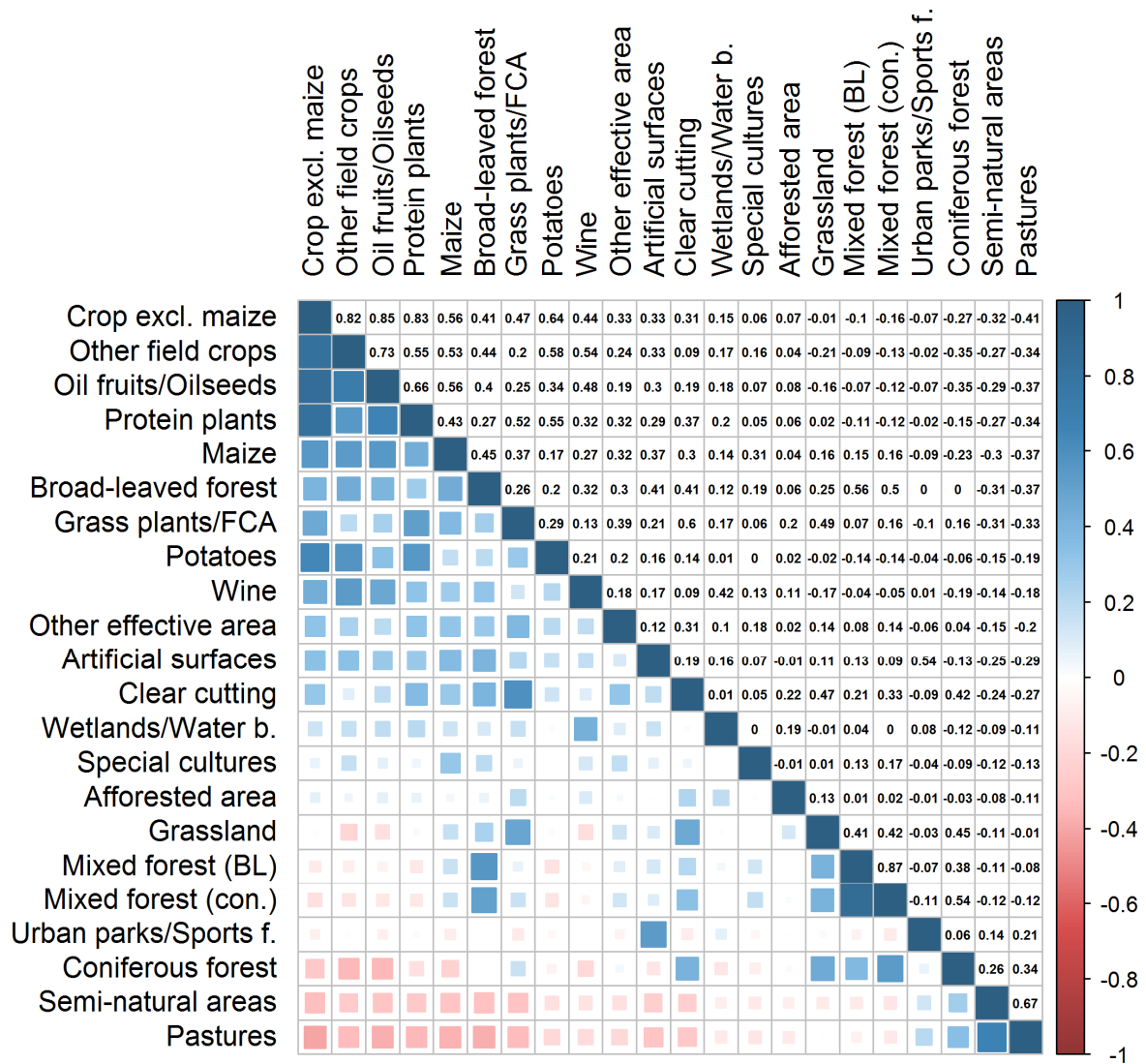
Investigating the role of landscape composition on honey bee colony winter mortality: A long-term analysis

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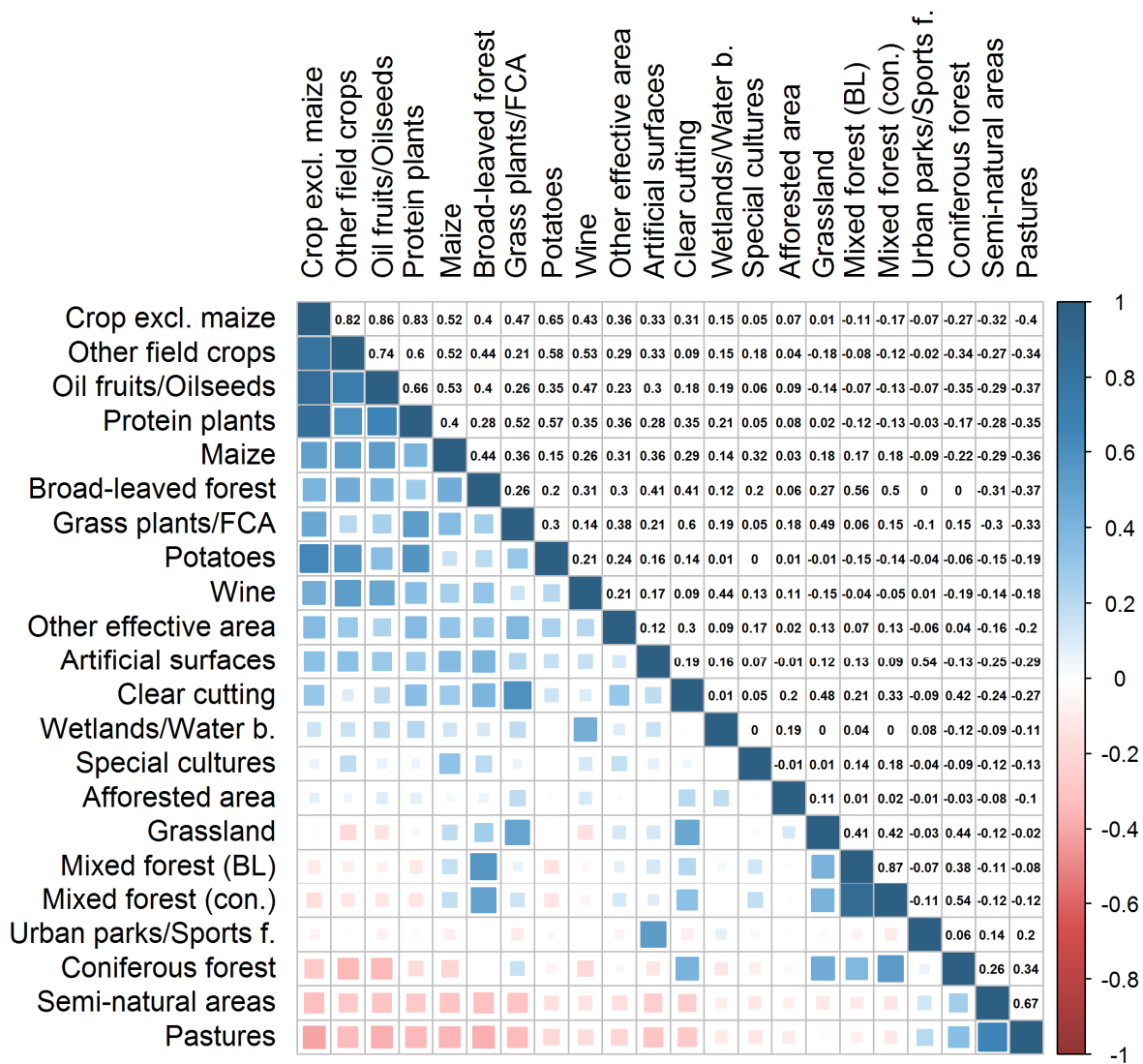
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Supplementary Figure S1: Correlation matrix of the land use categories in Austria, exemplary for the year 2014



Supplementary Figure S2: Correlation matrix of the land use categories in Austria, aggregated data from 2010–2015

Supplementary Table S1: Akaike Information Criteria for the model selection process; the selected models are highlighted in bold print for each selection step.

Model	p-Value LR-Test	AIC	Change in AIC	Df
Step 0				
Intercept only		28337.21		2
Step 1				
Intercept + operation size	<0.001	28314.54	22.67	3
Intercept + cluster membership	<0.001	28241.06	96.15	7
Intercept + elevation above sea level	<0.001	28212.85	124.36	3
Intercept + municipality size	0.030	28334.29	2.92	5
Intercept + year of wintering	<0.001	27542.18	795.03	7
Intercept + interaction (cluster membership, year of wintering)	<0.001	27457.29	879.92	37
Step 2				
Intercept + interaction (cluster membership, year of wintering) + operation size	<0.001	27430.76	26.53	38
Intercept + interaction (cluster membership, year of wintering) + elevation above sea level	<0.001	27436.20	21.09	38
Intercept + interaction (cluster membership, year of wintering) + municipality size	0.858	27462.53	-5.24	40
Step 3				
Intercept + interaction (cluster membership, year of wintering) + operation size + elevation above sea level	convergence issues due to correlation of cluster membership and elevation above sea level			