

Appendix Three

Results of SADIE spatial association analysis (see Chapter eight).

Table 1. Horti grid 1: results of SADIE spatial association analysis. The overall measure of association for the two data sets and its p-value were obtained by measuring the similarity between two sets of SADIE clustering indices for each arthropod group. The actual sample size was adjusted for spatial autocorrelation. $P < 0.025$ or > 0.975 are significant (shown in bold).

Data set 1	Data set 2	Actual sample size	Effective sample size	Scale factor	χ_p overall	P
% Egg Predated ^{NS}	% Leaf area loss	42.00	35.00	1.10	0.13	0.23
% Egg Predated ^{NS}	PT Predator	42.00	34.10	1.12	-0.20	0.87
% Egg Predated ^{NS}	V Predator ^{NS}	42.00	35.10	1.10	0.12	0.24
V Pest ^{NS}	V Predator ^{NS}	42.00	34.80	1.11	0.71	0.00
PT Pest	PT Predator	42.00	39.00	1.04	0.24	0.07
PT Pest	PT Predatory Coleoptera	42.00	37.10	1.07	0.19	0.13
PT Pest	PT Predatory Formicidae	42.00	38.10	1.05	0.23	0.09
% Leaf area loss	V Pest ^{NS}	42.00	43.70	<1 NA	-0.05	0.64
% Leaf area loss	PT Pest	42.00	38.30	1.05	-0.14	0.79

V: Vacuum sample of 25cm of soybean row

PT: Pitfall trap catch

NA: No adjustment necessary

NS: Parameter was not significantly aggregated in previous SADIE analysis

Table 2. Mendel grid 1: results of SADIE spatial association analysis. The overall measure of association for the two data sets and its p-value were obtained by measuring the similarity between two sets of SADIE clustering indices for each arthropod group. The actual sample size was adjusted for spatial autocorrelation. $P < 0.025$ or > 0.975 are significant (shown in bold).

Data set 1	Data set 2	Actual sample size	Effective sample size	Scale factor	χ_p overall	P
% Egg Predated	PT Predator ^{NS}	42.00	33.50	1.13	-0.14	0.77
% Egg Predated	PT Araneae	42.00	38.30	1.05	0.50	0.00
% Egg Predated	PT Lycosidae	42.00	39.00	1.04	0.38	0.01
% Egg Predated	% Leaf area loss	42.00	38.70	1.05	0.33	0.02
% Egg Predated	V Predator ^{NS}	42.00	39.30	1.04	-0.23	0.93
% Egg Predated	V Other ^{NS}	42.00	43.60	<1 NA	0.01	0.45
V Pest ^{NS}	V Predator ^{NS}	42.00	36.00	1.09	0.36	0.02
V Pest ^{NS}	PT Lycosidae	42.00	35.10	1.10	-0.03	0.58
V Other ^{NS}	V Predator ^{NS}	42.00	29.60	1.21	0.35	0.03
PT Pest ^{NS}	PT Predator ^{NS}	42.00	33.90	1.12	-0.15	0.79
PT Pest ^{NS}	PT Araneae	42.00	41.10	1.01	0.29	0.04
PT Pest ^{NS}	PT Lycosidae	42.00	37.80	1.06	0.29	0.04
% Leaf area loss	PT Lycosidae	42.00	44.70	<1 NA	0.46	0.00
% Leaf area loss	V Pest ^{NS}	42.00	38.80	1.04	0.12	0.24
% Leaf area loss	PT Araneae	42.00	46.30	<1 NA	0.51	0.00

V: Vacuum sample of 25cm of soybean row

PT: Pitfall trap catch

NA: No adjustment necessary

NS: Parameter was not significantly aggregated in previous SADIE analysis

Table 3. Mendel grid 2: results of SADIE spatial association analysis. The overall measure of association for the two data sets and its p-value were obtained by measuring the similarity between two sets of SADIE clustering indices for each arthropod group. The actual sample size was adjusted for spatial autocorrelation. $P < 0.025$ or > 0.975 are significant (shown in bold).

Data set 1	Data set 2	Actual sample size	Effective sample size	Scale factor	χ_p overall	P
% Egg Predated ^{NS}	% Leaf area loss	42.00	39.90	1.03	-0.30	0.97
% Egg Predated ^{NS}	V Predator	42.00	34.40	1.12	-0.02	0.54
% Egg Predated ^{NS}	PT Predator ^{NS}	42.00	38.10	1.05	0.23	0.08
% Egg Predated ^{NS}	V Predatory Hemiptera	42.00	34.30	1.12	0.04	0.42
V Pest	V Predator	42.00	39.30	1.04	0.34	0.01
PT Pest ^{NS}	PT Predator ^{NS}	42.00	38.50	1.05	-0.04	0.60
% Leaf area loss	V Pest	42.00	36.60	1.08	0.10	0.28
% Leaf area loss	V Predator	42.00	40.70	1.02	0.44	0.00
% Leaf area loss	V Predatory Hemiptera	42.00	40.80	1.02	0.27	0.04
% Leaf area loss	PT Pest ^{NS}	42.00	39.80	1.03	0.24	0.07
% Leaf area loss	PT Other	42.00	35.00	1.10	-0.15	0.80

V: Vacuum sample of 25cm of soybean row

PT: Pitfall trap catch

NS: Parameter was not significantly aggregated in previous SADIE analysis

Table 4. Gilbert A grid 1: results of SADIE spatial association analysis. The overall measure of association for the two data sets and its p-value were obtained by measuring the similarity between two sets of SADIE clustering indices for each arthropod group. The actual sample size was adjusted for spatial autocorrelation. $P < 0.025$ or > 0.975 are significant (shown in bold).

Data set 1	Data set 2	Actual sample size	Effective sample size	Scale factor	χ_p overall	P
% Egg Predated ^{NS}	% Leaf area loss	45.00	36.30	1.12	-0.23	0.91
% Egg Predated ^{NS}	PT Predator ^{NS}	45.00	38.20	1.09	0.19	0.13
% Egg Predated ^{NS}	V Predator	45.00	36.30	1.12	-0.28	0.95
% Egg Predated ^{NS}	PT Araneae	45.00	38.60	1.09	0.27	0.05
% Egg Predated ^{NS}	PT Lycosidae	45.00	37.20	1.11	0.07	0.33
% Egg Predated ^{NS}	V Araneae	45.00	39.40	1.07	-0.12	0.78
V Pest	V Predator	45.00	40.70	1.06	0.59	0.00
V Pest	PT Lycosidae	45.00	46.80	<1 NA	-0.36	0.99
PT Pest ^{NS}	PT Predator ^{NS}	45.00	41.10	1.05	-0.44	0.08
PT Pest ^{NS}	PT Araneae	45.00	40.70	1.06	-0.17	0.85
PT Pest ^{NS}	PT Lycosidae	45.00	42.00	1.04	0.03	0.44
% Leaf area loss	PT Lycosidae	45.00	32.40	1.20	-0.26	0.93
% Leaf area loss	V Pest	45.00	41.00	1.05	0.41	0.00
% Leaf area loss	V Predator	45.00	30.70	1.23	0.40	0.01
% Leaf area loss	V Araneae	45.00	46.30	<1 NA	0.41	0.00

V: Vacuum sample of 25cm of soybean row

PT: Pitfall trap catch

NA: No adjustment necessary

NS: Parameter was not significantly aggregated in previous SADIE analysis

Table 5. Gilbert A grid 2: results of SADIE spatial association analysis. The overall measure of association for the two data sets and its p-value were obtained by measuring the similarity between two sets of SADIE clustering indices for each arthropod group. The actual sample size was adjusted for spatial autocorrelation. $P < 0.025$ or > 0.975 are significant (shown in bold).

Data set 1	Data set 2	Actual sample size	Effective sample size	Scale factor	χ_p overall	P
% Egg Predated ^{NS}	V Predator ^{NS}	45.00	36.90	1.11	-0.11	0.75
% Egg Predated ^{NS}	PT Predator	45.00	48.10	<1 NA	-0.22	0.93
% Egg Predated ^{NS}	% Leaf area loss	45.00	58.60	<1 NA	0.12	0.21
PT Pest	PT Predator	45.00	42.30	1.03	0.25	0.06
PT Pest	PT Dermaptera	45.00	39.70	1.07	-0.14	0.81
PT Pest	PT Araneae ^{NS}	45.00	35.20	1.14	0.24	0.09
V Pest	V Araneae	45.00	42.60	1.03	-0.32	0.98
V Pest	V Predator ^{NS}	45.00	37.50	1.10	-0.13	0.77
V Pest	PT Pest	45.00	36.20	1.12	-0.06	0.63
V Predator ^{NS}	PT Predator	45.00	34.50	1.16	-0.04	0.60
% Leaf area loss	V Pest	45.00	46.40	<1 NA	-0.15	0.84
% Leaf area loss	PT Pest	45.00	55.90	<1 NA	0.00	0.51

V: Vacuum sample of 25cm of soybean row

PT: Pitfall trap catch

NA: No adjustment necessary

NS: Parameter was not significantly aggregated in previous SADIE analysis

Table 6. Gilbert C grid 1: results of SADIE spatial association analysis. The overall measure of association for the two data sets and its p-value were obtained by measuring the similarity between two sets of SADIE clustering indices for each arthropod group. The actual sample size was adjusted for spatial autocorrelation. $P < 0.025$ or > 0.975 are significant (shown in bold).

Data set 1	Data set 2	Actual sample size	Effective sample size	Scale factor	χ_p overall	P
% Egg Predated	% Leaf area loss	42.00	37.00	1.07	-0.06	0.63
% Egg Predated	PT Predator	42.00	38.90	1.04	0.26	0.05
% Egg Predated	PT Carabidae	42.00	35.90	1.09	0.33	0.03
% Egg Predated	PT Lycosidae	42.00	35.90	1.09	0.09	0.30
% Egg Predated	V Predator ^{NS}	42.00	38.30	1.05	0.11	0.25
% Egg Predated	Plant height	42.00	38.30	1.05	0.45	0.00
V Pest	V Predator ^{NS}	42.00	31.00	1.18	-0.03	0.56
PT Pest	PT Predator	42.00	38.60	1.05	0.42	0.00
PT Pest	PT Carabidae	42.00	35.60	1.09	0.38	0.01
PT Pest	PT Araneae	42.00	33.80	1.13	0.29	0.05
PT Pest	PT Lycosidae	42.00	36.30	1.08	0.35	0.02
PT Pest	PT Other	42.00	36.60	1.08	0.41	0.01
V Pest	Plant height	42.00	31.70	1.17	0.48	0.00
V Pest	PT Lycosidae	42.00	38.80	1.04	0.38	0.01
V Predator ^{NS}	Plant height	42.00	35.30	1.10	-0.06	0.62
PT Predator	Plant height	42.00	35.60	1.09	0.55	0.00
PT Araneae	Plant height	42.00	37.10	1.07	0.54	0.00
PT Lycosidae	Plant height	42.00	37.20	1.07	0.42	0.01
% Leaf area loss	PT Lycosidae	42.00	33.30	1.14	-0.47	1.00
% Leaf area loss	PT Pest	42.00	36.40	1.08	-0.07	0.66
% Leaf area loss	V Pest	42.00	33.10	1.14	-0.43	0.99

V: Vacuum sample of 25cm of soybean row

PT: Pitfall trap catch

NS: Parameter was not significantly aggregated in previous SADIE analysis

Table 7. Gilbert C grid 2: results of SADIE spatial association analysis. The overall measure of association for the two data sets and its p-value were obtained by measuring the similarity between two sets of SADIE clustering indices for each arthropod group. The actual sample size was adjusted for spatial autocorrelation. $P < 0.025$ or > 0.975 are significant (shown in bold).

Data set 1	Data set 2	Actual sample size	Effective sample size	Scale factor	χ_p overall	P
% Egg Predated	% Leaf area loss ^{NS}	42.00	33.80	1.13	-0.26	0.93
% Egg Predated	V Predator	42.00	34.40	1.11	0.29	0.05
% Egg Predated	V Other	42.00	37.80	1.06	0.26	0.06
% Egg Predated	Plant Height	42.00	36.80	1.08	0.30	0.03
% Egg Predated	PT Araneae	42.00	31.60	1.17	-0.20	0.86
% Egg Predated	PT Predator ^{NS}	42.00	33.60	1.13	-0.16	0.82
% Egg Predated	PT Lycosidae	42.00	38.70	1.05	-0.20	0.89
V Pest ^{NS}	V Predator	42.00	36.60	1.08	-0.25	0.93
V Pest ^{NS}	PT Lycosidae	42.00	37.30	1.07	0.13	0.21
PT Pest ^{NS}	PT Predator ^{NS}	42.00	36.70	1.08	0.16	0.17
PT Pest ^{NS}	PT Lycosidae	42.00	33.50	1.13	-0.11	0.73
Plant Height	V Predator	42.00	39.10	1.04	0.51	0.00
Plant Height	V Araneae	42.00	38.10	1.05	0.33	0.02
Plant Height	V Other	42.00	37.50	1.06	0.35	0.02
Plant Height	PT Predator ^{NS}	42.00	41.00	1.01	-0.33	0.98
Plant Height	PT Lycosidae	42.00	39.80	1.03	-0.71	1.00
% Leaf area loss ^{NS}	V Pest ^{NS}	42.00	34.80	1.11	-0.25	0.92
% Leaf area loss ^{NS}	PT Lycosidae	42.00	36.50	1.08	0.27	0.05
% Leaf area loss ^{NS}	PT Pest ^{NS}	42.00	33.90	1.12	-0.06	0.64

V: Vacuum sample of 25cm of soybean row

PT: Pitfall trap catch

NS: Parameter was not significantly aggregated in previous SADIE analysis

Table 8. Gilbert C grid 3: results of SADIE spatial association analysis. The overall measure of association for the two data sets and its p-value were obtained by measuring the similarity between two sets of SADIE clustering indices for each arthropod group. The actual sample size was adjusted for spatial autocorrelation. $P < 0.025$ or > 0.975 are significant (shown in bold).

Data set 1	Data set 2	Actual sample size	Effective sample size	Scale factor	χ_p overall	P
% Egg Predated ^{NS}	% Leaf area loss ^{NS}	42.00	32.10	1.16	-0.25	0.92
Plant Height	% Leaf area loss ^{NS}	42.00	41.30	1.01	0.04	0.41
Plant Height	% Egg Predated ^{NS}	42.00	36.10	1.08	-0.02	0.55

NS: Parameter was not significantly aggregated in previous SADIE analysis