

Ecography

ECOG-01393

Tisseuil, C., Gryspeirt, A., Lancelot, R., Pioz, M., Liebhold, A. and Gilbert, M. 2015. Evaluating methods to quantify spatial variation in the velocity of biological invasions. – Ecography doi: 10.1111/ecog.01393

Supplementary material

Appendix 1

SUPPLEMENTARY INFORMATION A

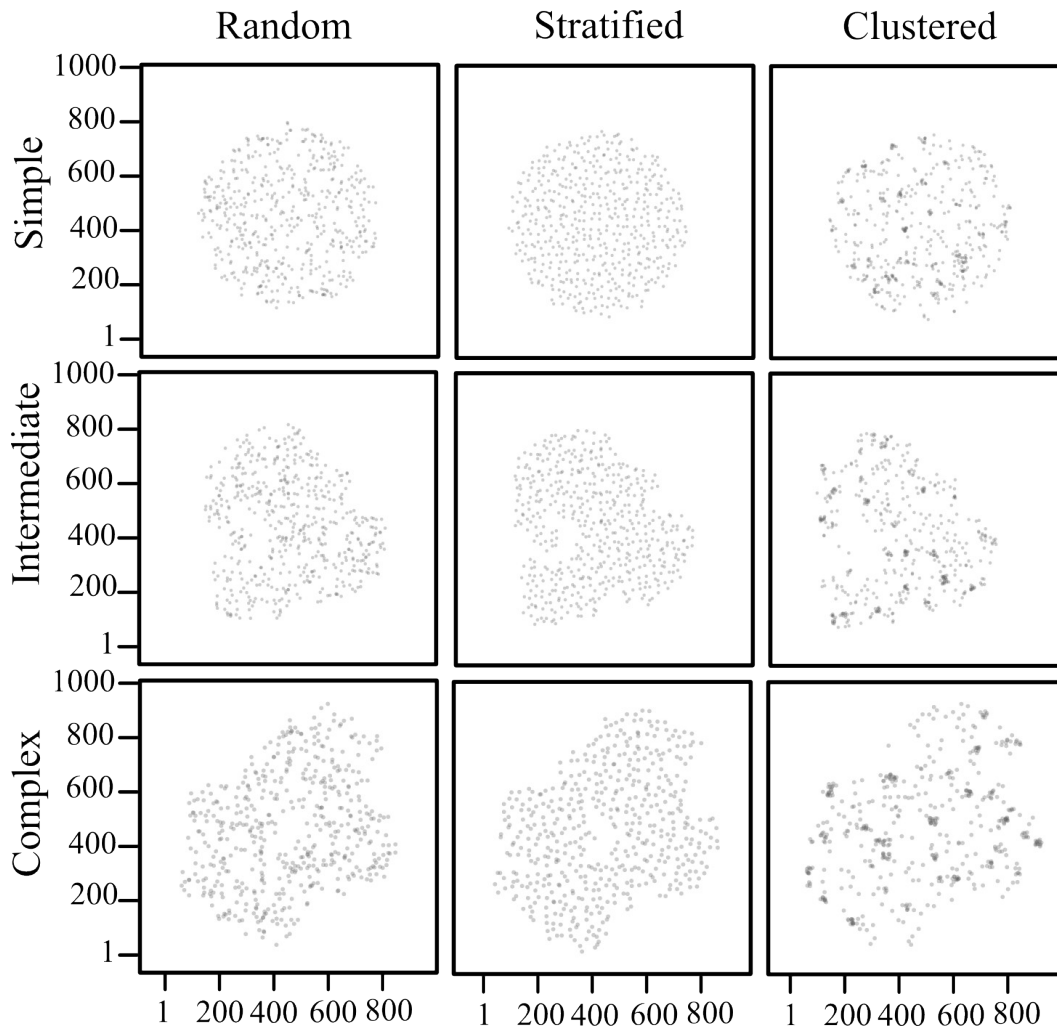


Fig. A1: Sampling design to assess the effect of varying numbers of samples (500, 1,000 and 2,000) and their distribution ('random', 'stratified' and 'clustered') on spread rate estimates.

Table A1: Averaged, standard deviation and 95% confidence levels in Spearman correlation and RMSE values calculated for the overall factors and for the six tested factors, separately: spread rate estimator, interpolation model, pattern of invasion, spatio-temporal modelling structure, numbers of samples and the sample spatial distribution.

Factors	Spearman correlation			RMSE		
	Mean	s.d	95% CI	Mean	s.d	95% CI
<u>All factors</u>						
NA	0.2	0.22	0.02	10.38	1.87	0.17
<u>Spread rate estimators</u>						
DE	0.14	0.15	0.02	11.26	1.37	0.22
ND	0.18	0.21	0.03	10.87	1.46	0.23
NH	0.28	0.27	0.05	8.87	1.85	0.31
<u>Interpolation model</u>						
GLM	0.06	0.09	0.01	10.43	1.84	0.29
Kriging	0.27	0.24	0.04	10.27	1.82	0.3
TPRS	0.27	0.24	0.04	10.44	1.96	0.32
<u>Pattern of invasion</u>						
Complex	0.23	0.23	0.04	10.43	2.19	0.35
Medium	0.33	0.22	0.04	10.51	1.53	0.25
Simple	0.03	0.04	0.01	10.21	1.82	0.29
<u>Spatio-temporal modelling structure</u>						
BD	0.12	0.15	0.02	10.19	1.93	0.26
TSA	0.26	0.25	0.03	10.55	1.8	0.23
<u>Number of samples</u>						
500	0.17	0.21	0.03	10.99	2.35	0.4
1000	0.2	0.23	0.04	10.13	1.51	0.24
2000	0.22	0.23	0.04	10.1	1.58	0.25
<u>Sample spatial distribution</u>						
Clustered	0.2	0.22	0.04	10.46	1.83	0.3
Random	0.19	0.22	0.04	10.37	1.9	0.3
Stratified	0.2	0.23	0.04	10.31	1.89	0.3