

Supplementary information to the paper:

Effects of surrounding landscape on the performance of *Solidago canadensis* L. and plant functional diversity on heavily invaded post-agricultural wastelands

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Biological Invasions

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Online Resource 6 Generalised additive models describing the percentage cover and biomass of *Solidago canadensis* as functions of river net length, cover of settlements, and cover of agricultural areas in different spatial scales (buffer sizes). Predictors in particular spatial scales were selected based on AICc values of preliminary single factor linear models. Abbreviations: Agri – contribution of agricultural areas, Settl – contribution of settlements, Riv – river net length in areas surrounding study plots. Numbers after hard spaces () included in predictor names are different buffers (100, 500, and 1000 m)

Response variable	Model parameters			
<i>S. canadensis</i> cover [%]	Parametric coefficients:	Estimate	SE	P
	(Intercept)	70.957	2.966	<0.001
	Approximate significance of smooth terms:	Estimated df	Reference df	P
	Agri_1000	1.701	1.911	0.295
	Riv_500	1.579	1.823	0.026
	Settl_1000	1.000	1.000	0.861
above ground biomass content [%]	Parametric coefficients:	Estimate	SE	P
	(Intercept)	43.484	1.009	<0.001
	Approximate significance of smooth terms:	Estimated df	Reference df	P
	Agri_500	1.000	1.000	0.014
	Riv_500	1.334	1.557	0.048
	Settl_500	1.000	1.000	0.129
leaf biomass content [%]	Parametric coefficients:	Estimate	SE	P
	(Intercept)	23.517	0.481	<0.001
	Approximate significance of smooth terms:	Estimated df	Reference df	P
	Agri_500	1.287	1.491	0.172
	Riv_500	1.220	1.391	0.042
	Settl_1000	1.000	1.000	0.001
stem biomass content [%]	Parametric coefficients:	Estimate	SE	P
	(Intercept)	54.616	0.591	<0.001
	Approximate significance of smooth terms:	Estimated df	Reference df	P
	Agri_500	1.000	1.000	0.774

	Riv_1000	1.000	1.000	0.031
	Settl_500	1000	1.000	0.584
flower biomass content [%]	Parametric coefficients:	Estimate	<i>SE</i>	<i>P</i>
	(Intercept)	21.593	0.484	
	Approximate significance of smooth terms:	Estimated <i>df</i>	Reference <i>df</i>	<i>P</i>
	Agri_500	1.663	1.887	0.774
	Riv_500	1.713	1.918	0.031
	Settl_1000	1.000	1.000	0.584
rhizome biomass content [%]	Parametric coefficients:	Estimate	<i>SE</i>	<i>P</i>
	(Intercept)	68.897	1.674	
	Approximate significance of smooth terms:	Estimated <i>df</i>	Reference <i>df</i>	<i>P</i>
	Agri_1000	1.579	1.820	0.409
	Riv_500	1.179	1.323	0.025
	Settl_100	1.572	1.811	0.558