Supplementary material 5.

Belgrade area – results of statistical testing

Herewith we show all the results from the conducted statistical analyzes. Parts of the Tables S5.2. and S5.3, with results from the S250 framework, are also shown in the main text (as Tables 1. and 2, respectively).

Table S5.1. Kruskal-Wallis test statistics for NoT, NoT_iB, TFR, CFR, and BpM across urbanistic zones.

Variable	H-statistics	df	p-value
S250 (N=40)			
NoT	3.816	4	0.527
NoT_iB	7.438	4	0.115
TFR	7.478	4	0.113
CFR	8.092	4	0.088
BpM	4.521	4	0.341
S500 (N=23)			
NoT	2.063	4	0.724
NoT_iB	4.196	4	0.381
TFR	4.626	4	0.328
CFR	3.697	4	0.448
BpM	2.273	4	0.686

No significant p-values.
NoT- number of trees; NoT_iB - number of trees in bloom; TFR - total floral resource; CFR - current floral resource.

Table S5.2. Results of the GLS linear regression models of the relationship of bee activity density (BpM) and variables NoT, NoT_iB, TFR, and CFR, at two scales: S250 and S500 framework.

Model		Estimate	SE	t-value	p-value
S250 (N=16)					
NoT	Intercept	6.368	1.638	3.887	**0.002****
	Variable	-0.144	0.854	-1.644	0.122
NoT_iB	Intercept	6.092	2.001	3.045	**0.008****
	Variable	-0.557	0.579	-0.962	0.352
TFR	Intercept	3.459	2.689	1.286	0.219
	Variable	0.951	1.824	0.521	0.611
CFR	Intercept	-0.154	1.858	-0.089	0.935
	Variable	12.276	3.891	3.154	**0.007****
S500 (N=10)					
NoT	Intercept	10.328	1.984	5.205	**0.001*****
	Variable	-0.104	0.046	-2.276	0.052
NoT_iB	Intercept	9.978	2.532	3.939	**0.004****
	Variable	-0.598	0.431	-1.387	0.203
TFR	Intercept	10.981	4.435	2.527	**0.035***
	Variable	-1.718	1.914	-0.898	0.396
CFR	Intercept	4.118	4.463	0.922	0.383
	Variable	5.326	6.439	0.827	0.432

Significant p-values in bold (* p≤0.05; ** p≤0.01; *** p≤0.001).
NoT- number of trees; NoT_iB - number of trees in bloom; TFR - total floral resource; CFR - current floral resource.

Table S5.3. Results of the GLS linear regression models of the relationship of bee activity density (BpM) and variables TFR, CFR, %TFR and %CFR, all averaged across each urbanistic zone, at two scales: S250 and S500 framework.

| Model		Estimate	SE	t-value	p-value
S250 (N=5)					
TFR	Intercept	1.575	5.663	0.278	0.799
	Variable	3.121	4.184	0.745	0.509
%TFR	Intercept	0.568	2.388	0.238	0.827
	Variable	15.359	6.196	2.479	0.089
CFR	Intercept	-2.492	0.909	-2.741	0.071
	Variable	18.008	1.838	9.798	**0.002****
%CFR	Intercept	1.293	0.756	1.711	0.186
	Variable	30.223	3.981	7.592	**0.005****
S500 (N=5)					
TFR	Intercept	7.597	4.801	1.582	0.212
	Variable	0.045	2.223	0.021	0.985
%TFR	Intercept	3.491	1.709	2.042	0.134
	Variable	15.424	5.245	2.941	0.061
CFR	Intercept	-1.584	3.749	-0.422	0.701
	Variable	13.947	5.419	2.573	0.082
%CFR	Intercept	4.491	0.806	5.572	**0.011***
	Variable	27.647	5.032	5.493	**0.012***

Significant p-values in bold (* p≤0.05; ** p≤0.01)

TFR - total floral resource; %TFR - percentage of total floral resource; CFR - Current Floral Resource; %CFR – percentage of current floral resource.

Belgrade area – distribution maps of estimated metrics: Spatial visualization of floral resource parameters of *S. japonicum*, and activity density of *M. sculpturalis*.

All metrics are shown in the S250 framework, while only BpM is shown at both scales. We have tested all resource parameters at both scales; most of them have shown high variability and low significance in explaining the bee activity density distribution across the surveyed area; only CFR was significant at S250, henceforth, only the results for S250 scale was elaborated in the main text. High variability of all metrics within and between the zones (partly due to uneven sampling intensity and small number of samples) contributed to lack of significant inter-zone differences when averaged values of parameters are used. Maps at Figs. S5.1D and S5.2A correspond with the Fig. 3A-B in the main text.
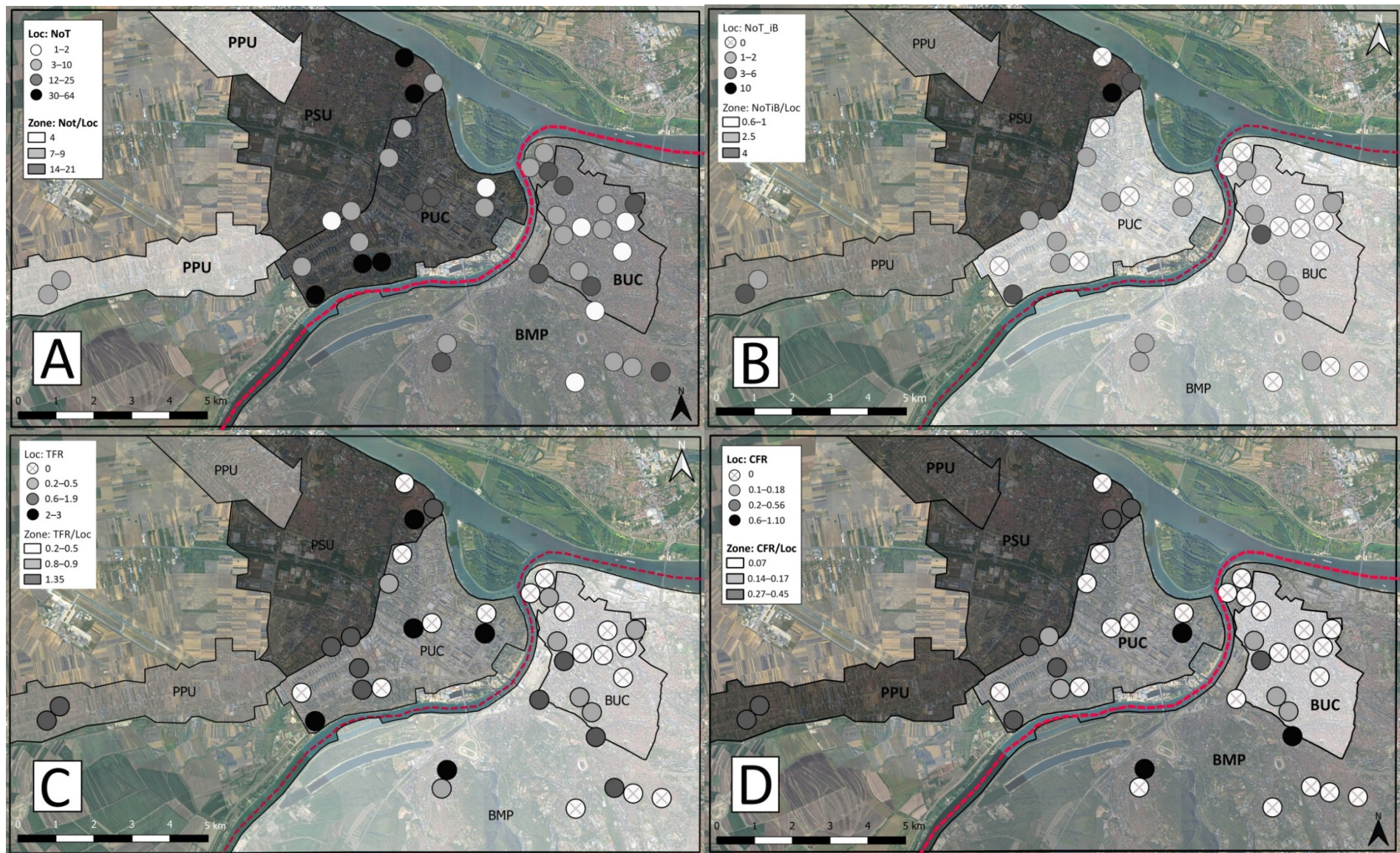
Figure S5.1. Distribution of floral resource metrics of *S. japonicum* surveyed in August 2019 in Belgrade, presented within the S250 framework (circular sectors – "landscapes" of r=250 m; values shown in 4 classes, data from Table S3.2), contrasted with average value of respective parameter calculated per each urbanistic zone (background shades of grey, data from Table S3.4; zone acronyms as in Figs. S2.2–S2.3.): (**A**) NoT – Number of Trees; (**B**) NoT_iB – Number of Trees in Bloom; (**C**) TFR – Total Floral Resource; (**D**) CFR – Current Floral Resource.
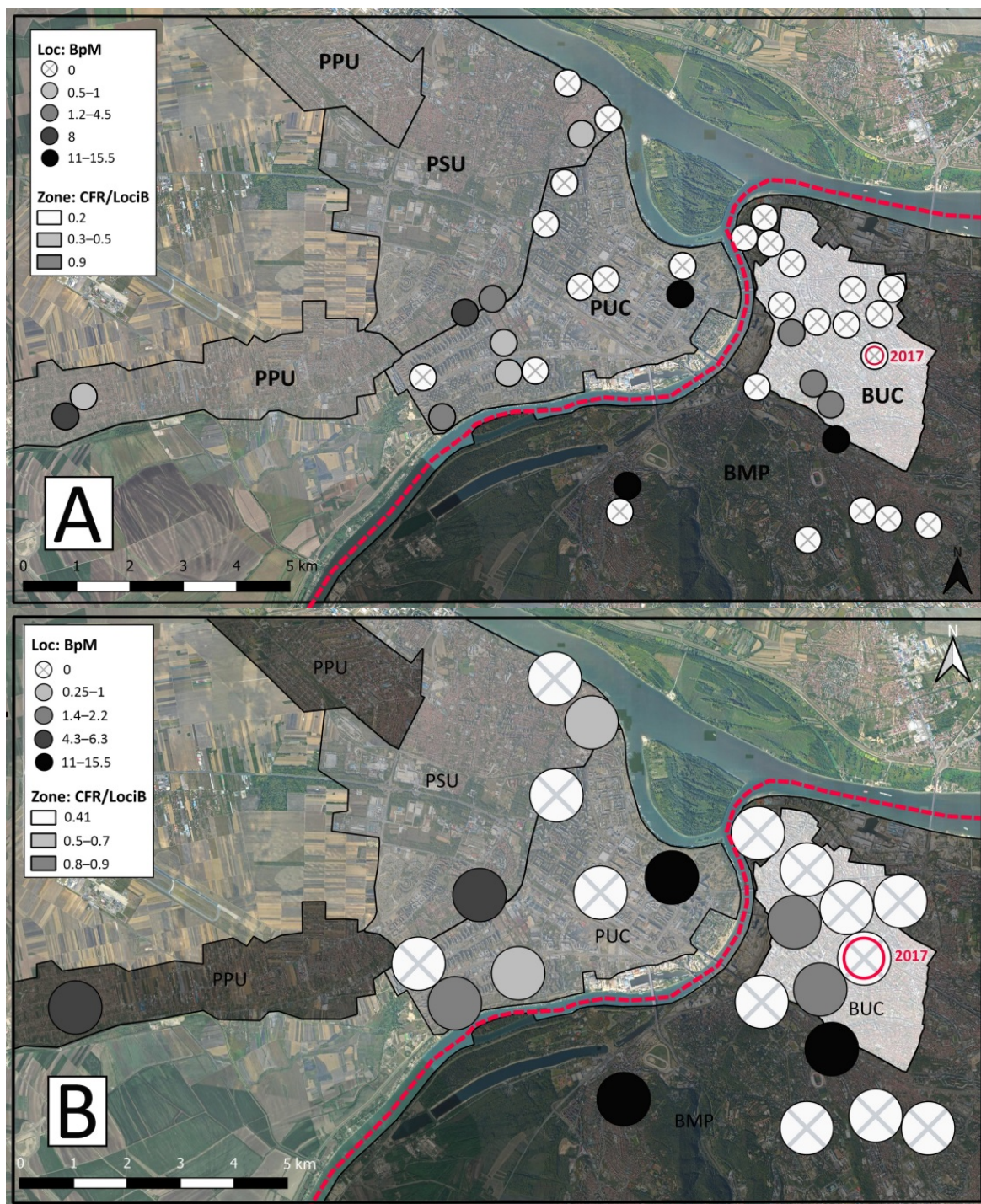
Figure S5.2. Distribution of *M. sculpturalis* activity density (scaled to Bees per Minute – BpM) on blooming *S. japonicum* trees in early August 2019 in Belgrade, presented within both frameworks: (**A**) S250 and (**B**) S500 (values shown in 5 classes, data from the Table S3.3); contrasted with average value of currently available floral resource (CFR/Loc_iB: only locations with recorded active blooming ≥0.1 were used in calculation) for each urbanistic zone (background shades of grey, data from the Table S3.4; zone acronyms as above). Location of the first find is marked with "2017".