Appendix A1 - Additional results of the yearly fruit crop distribution and GLM analyses comparing fruit crop and connectivity metrics between tree species and years.

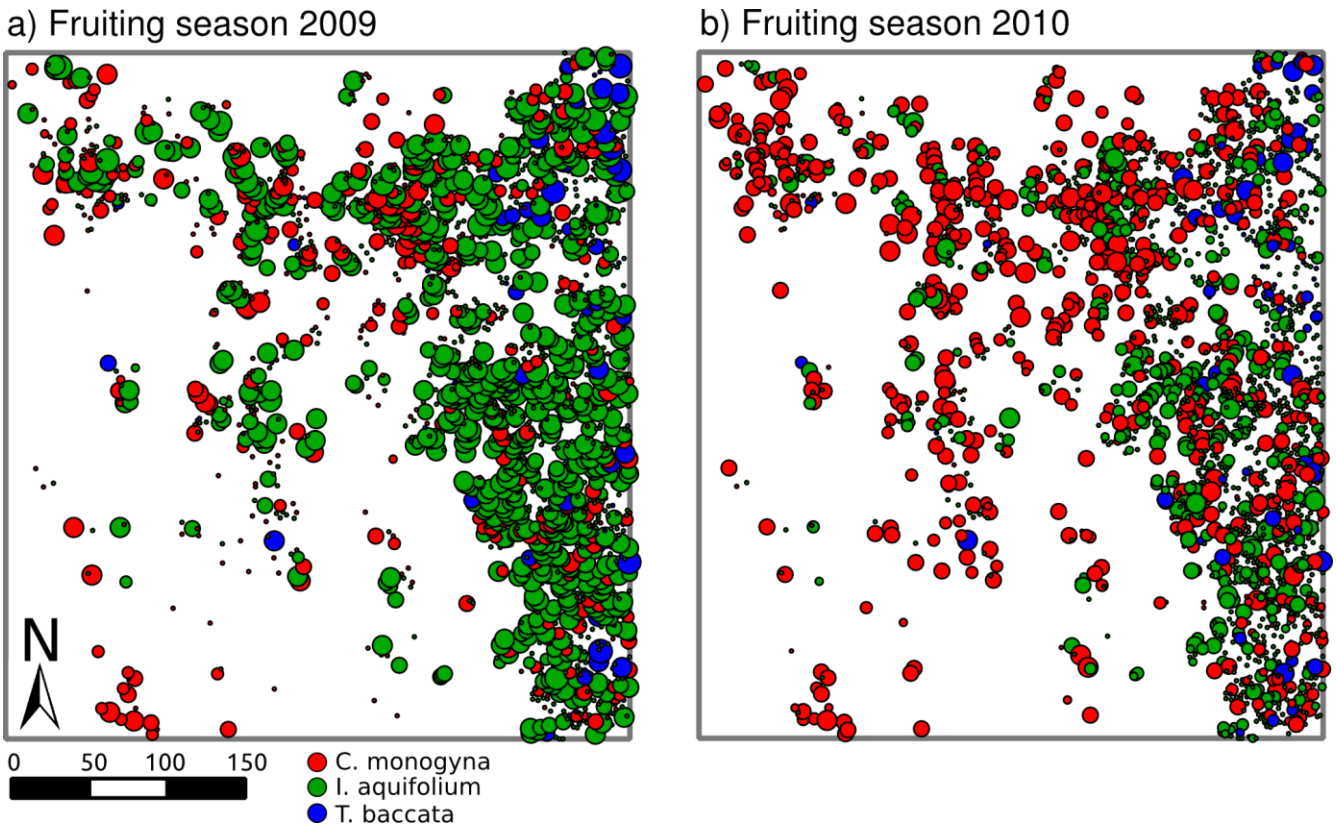

Figure A1. Distribution of fleshy-fruited trees in the study plot by years. Circles represent the position of fleshy-fruited trees (*n* = 2384 trees, species defined by colours). Circle sizes are proportional to the fruiting crop (in FAI) of fleshy-fruited trees.

Table A1- Results of the GLM analysis on Fruit crop (FAI; response variable) affected by (a) years (2009 vs 2010) and (b) fleshy-fruited species [*Sp*; *C. monogyna*, *I. aquifolium* (Ia), and *T. baccata* (Tb)]; we considered *Sp* and *Year* as fixed effects. The analysis also includes the two-way interaction between independent variables (i.e. Year x Sp); as we are interested to obtain estimates of all coefficients, we fitted here (best) non-intercept models. Null deviance: 11171 on d.f. = 4779; Residual

deviance: 10225 on d.f. = 4774; AIC= 16545. Effects with significant coefficients (p<0.05) are highlihted in bold.

Coefficients	Estimate	Std. error	z-value	P(>|z|)
Year(2009)	0.059	0.038	1.559	<0.001
Year(2010)	1.112	0.022	50.0	<0.001
Sp(Ia)	0.332	0.043	7.727	<0.001
Sp(Tb)	0.406	0.087	4.680	<0.001
Year(2010) x Sp(Ia)	-1.691	0.056	-30.2	<0.001
Year(2010) x Sp(Tb)	-0.899	0.115	-7.840	<0.001

Table A2- Results of the GLM analysis on the number of links (*NL*; response variable) affected by (a) *Year* (2009 vs 2010) and (b) *Sp* (*C. monogyna*, *I. aquifolium*, and *T. baccata*). Null deviance: 6.788 on d.f. = 4779; Residual deviance: 6.252 on d.f. = 4774; AIC= -18157. For abbreviations and conventions, see Table A1 caption.

Coefficients	Estimate	Std. error	z-value	P(>|z|)
Year(2009)	-0.067	0.001	47.46	<0.001
Year(2010)	-0.067	0.001	47.50	<0.001
Sp(Ia)	0.024	0.002	14.162	<0.001
Sp(Tb)	0.016	0.004	4.056	<0.001
Year(2010) x Sp(Ia)	0.0004	0.002	0.159	0.873
Year(2010) x Sp(Tb)	0.0005	0.005	0.090	0.929

Table A3- Results of the GLM analysis on the integral index of connectivity of each tree (*dIIC*; response variable) affected by (a) Year (2009 vs 2010) and (b) *Sp* (*C. monogyna*, *I. aquifolium*, and *T. baccata*). Null deviance: 27.40 on d.f. = 4779; Residual deviance: 23.29 on d.f. = 4774; AIC= -11871. For further conventions, see Table A1 caption.

Coefficients	Estimate	Std. error	z-value	P(>|z|)
Year(2009)	0.064	0.003	23.67	<0.001
Year(2010)	0.147	0.003	54.17	<0.001
Sp(Ia)	0.027	0.003	8.472	<0.001
Sp(Tb)	0.028	0.007	3.732	<0.001
Year(2010) x Sp(Ia)	-0.116	0.005	-25.51	<0.001
Year(2010) x Sp(Tb)	-0.075	0.010	-7.194	<0.001

Table A4- Results of the GLM analysis on the probability of connectivity of each tree (*dPC*; response variable) affected by (a) Year (2009 vs 2010) and (b) *Sp* (*C. monogyna*, *I. aquifolium*, and *T. baccata*). Null deviance: 35.55 on d.f. = 4779; Residual deviance: 32.30 on d.f. = 4774; AIC= -10307. For further conventions, see Table A1 caption.

Coefficients	Estimate	Std. error	z-value	P(>|z|)
Year(2009)	0.056	0.003	17.46	<0.001
Year(2010)	0.134	0.003	42.18	<0.001
Sp(Ia)	0.037	0.004	9.822	<0.001

Sp(Tb)	0.030	0.009	3.463	<0.001
Year(2010) x Sp(Ia)	-0.111	0.005	-20.74	<0.001
Year(2010) x Sp(Tb)	-0.071	0.012	-5.753	<0.001

Table A5- Parameter estimates for the GLM analysis on seed abundance (response variable) affected by the (a) probability of connectivity of each fleshy-fruited tree (*dPC*), (b) year (2009 vs 2010) and (c) fleshy-fruited species [*Sp*; *C. monogyna* and *I. aquifolium* (Ia)]; we considered *Sp* and *Year* as fixed fixed effects. We also include in the analysis the two-way interaction between independent variables (i.e. *dPC*, *Year* and *Sp*). Showed model (i.e. lowest AIC) best predicted the abundance of seeds. As we detected over-dispersion in response variable (i.e. phi>>1), we fitted seed abundance to a zero-inflated poisson distribution, and we thus showed estimates from the seed occurrence (zero-inflation model) and seed abundance (count model). Notice that intercept of the zero-inflated (binomial) model was significant. We were interested to obtain estimates of all coefficients, and thus we showed (best) non-intercept models. Log-Likelihood: -3919 on d.f. = 8; AIC= 7853. Effects with significant coefficients (p<0.05) are highlighted in bold.

Coefficients	Estimate	Std. error	z-value	P(>|z|)
Zero-inflation model (binomial with logit link)				
Intercept	-2.61	0.312	-8.36	<0.001
Count model (poisson with log link)				
dPC	0.774	0.034	23.03	<0.001
Year(2009)	2.78	0.057	49.04	<0.001
Year(2010)	1.77	0.090	19.67	<0.001
Sp(Ia)	1.113	0.061	18.32	<0.001

dPC x Year(2010)	-0.134	0.026	-5.23	<0.001
dPC x Sp(Ia)	-0.356	0.034	-10.41	<0.001
Year(2010) x Sp(Ia)	0.407	0.079	5.14	<0.001

Table A6- Parameter estimates of the GLM analysis on seed abundance affected by *dPC* fractions (i.e., *dPC*flux, *dPC*intro *dPC*connect), Year (2009 and 2010) and *Sp* (*C. monogyna* and *I. aquifolium*); we considered *Sp* and *Year* as fixed fixed effects. Log-Likelihood: -3452 on d.f. = 12; AIC= 6927. For abbreviations and conventions, see Table A5 caption.

Coefficients	Estimate	Std. error	z-value	P(>|z|)
Zero-inflation model (binomial with logit link)				
Intercept	-2.63	0.316	-8.31	<0.001
Count model (poisson with log link)				
dPCintra	0.083	0.075	1.109	0.267
dPCflux	0.638	0.064	9.97	<0.001
dPCconnector	-0.485	0.036	-13.30	<0.001
Year(2009)	3.26	0.081	40.01	<0.001
Year(2010)	2.49	0.093	26.66	<0.001
Sp(Ia)	0.166	0.088	1.89	0.058
dPCintra x Year(2010)	-0.398	0.084	-4.757	<0.001
dPCflux x Year(2010)	0.302	0.087	3.481	<0.001
dPCintra x Sp(Ia)	-0.768	0.083	-9.240	<0.001
dPCflux x Sp(Ia)	0.583	0.075	7.732	<0.001

dPCconnector x Sp(Ia)	0.749	0.040	18.73	<0.001