

Supporting information:

Recipient and donor characteristics govern hierarchical structure in a heterospecific pollen competition network of co-flowering plants

Authors: Jose B. Lanuza, Ignasi Bartomeus, Tia Lynn Ashman, Romina Rader

The following Supporting Information is available for this article:

Table S1. Species names, common names, varieties and sources of the different seeds.

Table S2. Numerical values of all the traits measured for each species.

Table S3. Seed set in percentage for hand cross-pollination, hand self-pollination, natural selfing and apomixis for all species.

Table S4. Species x species matrix with the significance of effect “yes” or “no” of the different donors on the seed set of the different recipient species.

Table S5. Estimates, standard error, t-value and P-value of the effect of the different 9 donors on each recipient species.

Table S6. Number of seeds produced with 100% foreign pollen treatments for the different recipient species.

Table S7. Phylogenetic signal and significance for all the different traits

Table S8. Procrustes analysis results.

Figure S1. Correlation matrix for all the different traits.

Figure S2. Total amount of pollen found for the different treatments.

Figure S3. Pollen ratios for the different recipient species.

Figure S4. Pollen ratios for the different recipient species by family.

Figure S5. Statistical comparison of pollen ratios by family as pollen donor and recipient.

Figure S6. Violin plot of the reproductive biology of the species.

Figure S7. Grouped effect sizes by family for each recipient species.

Species	Common_names	Variety	Source
Brassica oleracea	Wild cabbage	Capitata	https://www.mrfothergills.com.au/
Brassica rapa	Pak choi	Chinensis	https://www.mrfothergills.com.au/
Eruca sativa	Rocket		https://www.mrfothergills.com.au/
Sinapis alba	White mustard		https://www.mrfothergills.com.au/
Ipomoea aquatica	Water spinach		https://www.theseedcollection.com.au/
Ipomoea purpurea	Morning glory		http://www.shaman-australis.com.au
Capsicum annum	Capsicum	California Wonder	https://www.edenseeds.com.au
Petunia integrifolia	Petunia		https://www.dianeseeds.com/
Solanum lycopersicum	Tomato	Tommy Toe	https://www.mrfothergills.com.au/
Solanum melongena	Eggplant	Little Fingers	https://www.4seasonsseeds.com.au/

species	pollen_size	mean_pollen_size	mean_nectarovules	pollen_ovules	stigma_area	stigma_length	stigma_width	style_length	style_width	ovary_length	ovary_width	Selfing_rate	si_index
Brassica oleracea	27.72	42033	29	8696.48	622167.06	527.81	884.88	2324.53	650.95	5927.46	1112.20	0.0	0.00
Brassica rapa	25.35	7133	26	1646.08	356582.77	372.34	733.96	1080.80	517.28	3531.94	877.76	0.0	0.00
Capsicum annuum	32.46	30761	241	765.83	1060683.56	724.84	1177.27	3237.91	1057.23	3148.37	5797.99	0.8	0.64
Eruca versicaria	24.95	22151	24	5537.75	345791.76	733.24	668.01	6595.94	730.84	4423.42	937.49	0.1	0.02
Ipomoea aquatica	70.10	858	4	1072.50	3255360.52	1430.34	2251.70	19441.30	453.06	2384.95	1416.57	0.6	0.75
Ipomoea purpurea	97.59	654	6	545.00	2271922.21	1238.40	1878.23	28230.08	579.81	1056.54	1573.48	1.0	2.74
Petunia integrifolia	24.74	34657	220	787.66	1168415.58	799.76	1322.44	14645.14	449.18	3128.93	1771.59	0.9	0.26
Sinapis alba	33.59	3507	6	3507.00	548562.10	631.04	906.31	3624.95	773.86	1981.32	1073.18	0.7	1.12
Solanum lycopersicum	22.00	28915	92	1885.76	91567.14	190.22	351.60	6466.81	310.19	1161.33	1133.40	0.7	0.48
Solanum melongena	25.18	166989	1010	992.01	1137294.13	961.83	1332.16	11329.30	936.53	4020.49	3554.43	1.0	1.45