## Table 1

Family	Genus	Species
Brassicaceae	Brassica	Brassica rapa
Brassicaceae	Brassica	Brassica oleracea
Brassicaceae	Eruca	Eruca versicaria
Brassicaceae	Sinapis	Sinapis alba
Convolvulaceae	Ipomoea	Ipomoea aquatica
Convolvulaceae	Ipomoea	Ipomoea purpurea
Solanaceae	Capsicum	Capsicum annuum
Solanaceae	Petunia	Petunia integrifolia
Solanaceae	Solanum	Solanum lycopersicum
Solanaceae	Solanum	Solanum melongena

Table 2

Species	Cross	Self	Natural_selfing	Apomixis
Brassica oleracea	32.06897	0.0000000	0.00000	0
Brassica rapa	44.97041	0.0000000	0.00000	0
Eruca versicaria	23.75000	0.4166667	0.00000	0
Sinapis alba	43.33333	48.3333333	5.00000	15
Ipomoea aquatica	40.00000	30.0000000	20.00000	0
Ipomoea purpurea	31.66667	86.6666667	31.66667	0
Capsicum annuum	100.00000	66.2240664	23.48548	0
Petunia integrifolia	100.00000	24.7727273	0.00000	0
Solanum lycopersicum	90.38043	43.4782609	70.00000	0
Solanum melongena	60.47525	87.9702970	21.56436	0

Table 3

Family	Species	Donor	Seeds
Brassicaceae	B. oleracea	C. annuum	5
Brassicaceae	B. rapa	B. oleracea	2
Brassicaceae	B. rapa	B. oleracea	13
Brassicaceae	B. rapa	S. lycopersicum	1
Brassicaceae	B. rapa	B. oleracea	7
Brassicaceae	B. rapa	B. oleracea	5
Brassicaceae	S. alba	B. oleracea	7
Brassicaceae	E. sativa	C. annuum	6
Brassicaceae	E. sativa	C. annuum	1
Solanaceae	S. lycopersicum	S. alba	3
Solanaceae	S. melongena	P. integrifolia	36
Solanaceae	C. annuum	S. alba	127
Solanaceae	C. annuum	E. sativa	3

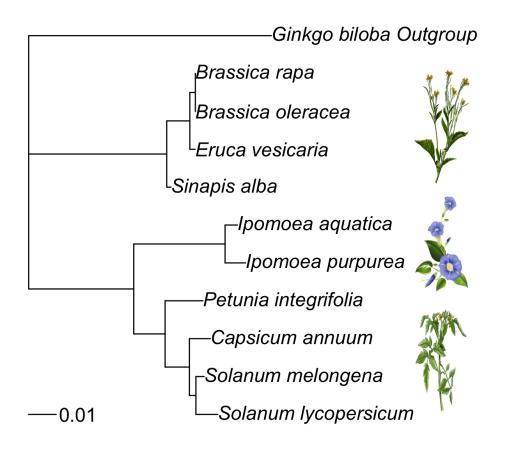


Figure 1

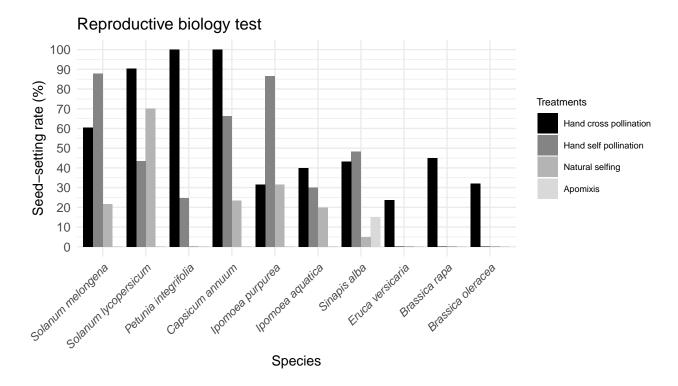


Figure 2

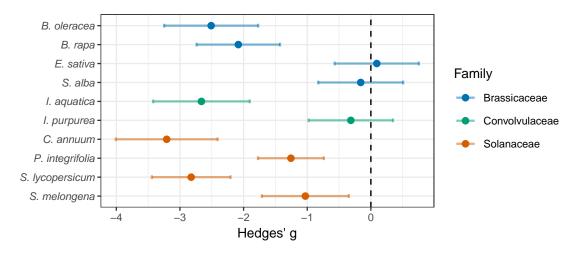


Figure 3

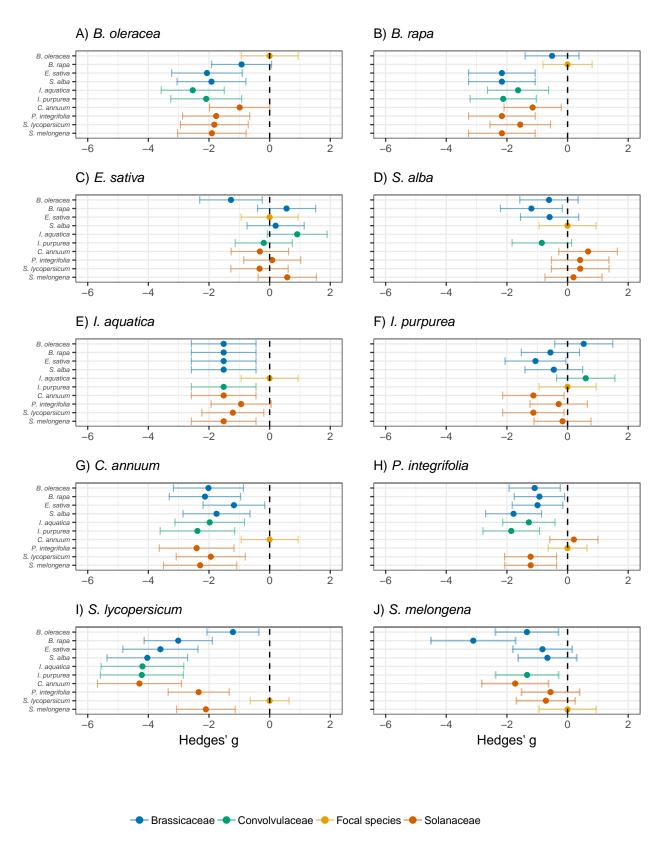


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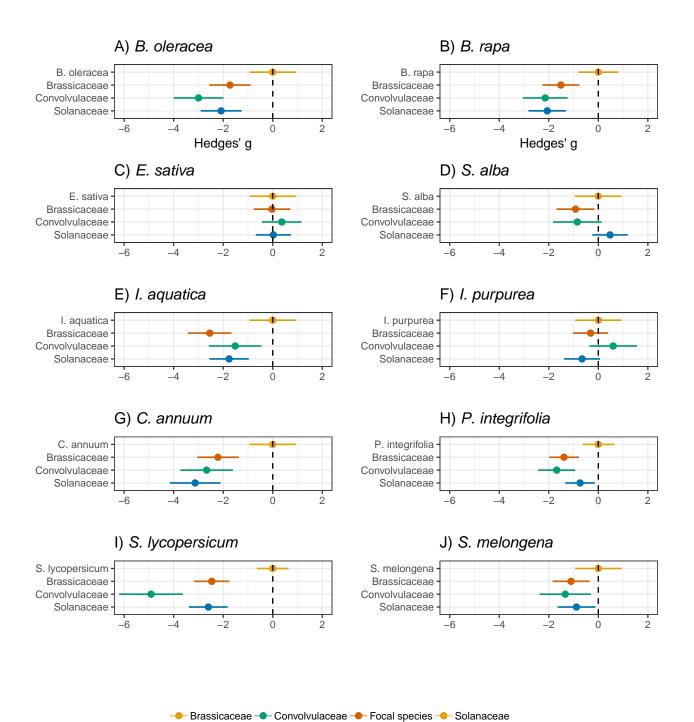


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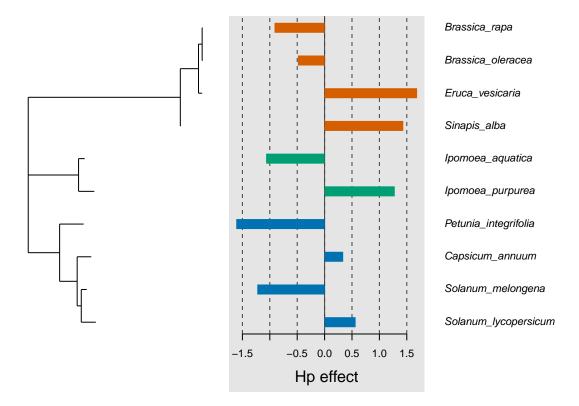


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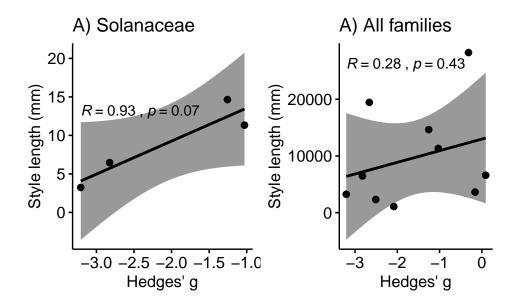
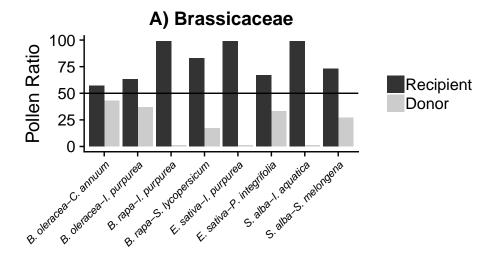
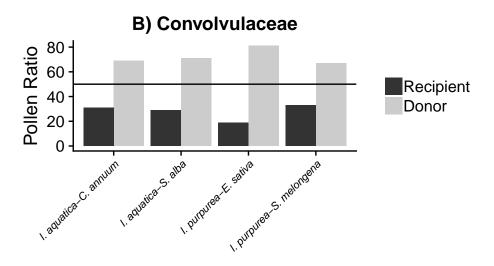


Figure 7





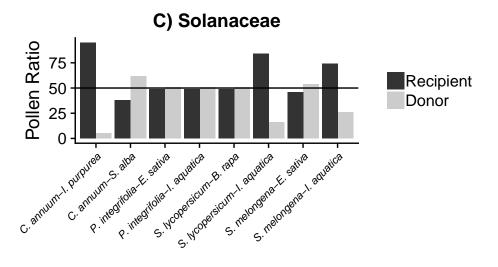
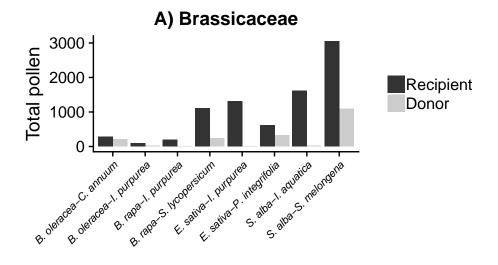
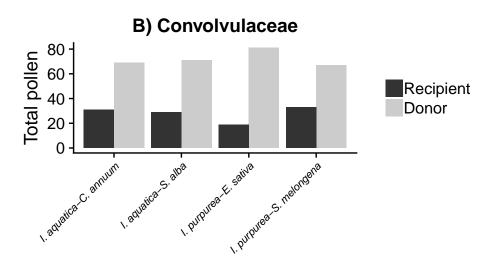


Figure 8





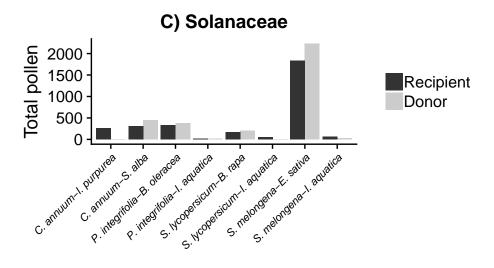


Figure 9

## List of tables

**Table 1** Species list with family and genus.

Table 2 Results of hand corss-pollination, hand self-pollination, natural selfing (unpollinated bagged flowers) and apomixis. The values are the average seed production per treatment (N=10) divided by the average number of ovules per species.

Table 3 Seed production for the treatments that produced seeds with 100% foreign pollen.

## List of figures

**Figure 1** Phylogenetic tree of the species used in the experiment from three different families from top to bottom: Brassicaceae, Convolvulaceae and Solanaceae.

Figure 2 Barplot of the different tests of the reproductive biology of the species. The y axis is the percentage of ovules converted to seed. The different treatments are, hand cross-pollination, hand self-pollination, natural selfing and apomixis (N=10 for all of them).

**Figure 3** The impact of foreign pollen on recipient plant species. Effect sizes (with 95% confidence intervals) of 9 different donor species of heterospecific pollen upon all recipients.

**Figure 4** The response of heterospecific pollen upon 10 recipient plant species. Each panel represents one recipient plant species crossed with 50% mixes of the other 9 species.

Figure 5 The impact of foreign pollen on recipient plant species. Effect sizes (with 95% confidence intervals) of the species grouped per family upon all recipients.

Figure 6 Phylogenetic signal of hterospecific pollen effect (hedges' g)

Figure 7 (comment) Simple Pearson correlation in order to show a possible path to follow in the article showing that style length and stigma size could explain the effect in Solanaceae species.

**Figure 8** Pollen ratio counts on stigma after hand pollination with 50-50% mix. The panel is divided by family: A) Brassicaceae, B) Convolvulaceae and C) Solanaceae. The pollen recipient species is coloured in black and the donor species in grey.

**Figure 9** Total pollen counts on stigma after hand pollination with 50-50% mix. The panel is divided by family: A) Brassicaceae, B) Convolvulaceae and C) Solanaceae. The pollen recipient species is coloured in black and the donor species in grey.