Data_visualization

Abstract

SEED SET PER SPECIES WITH DIFFERENT TREATMENTS

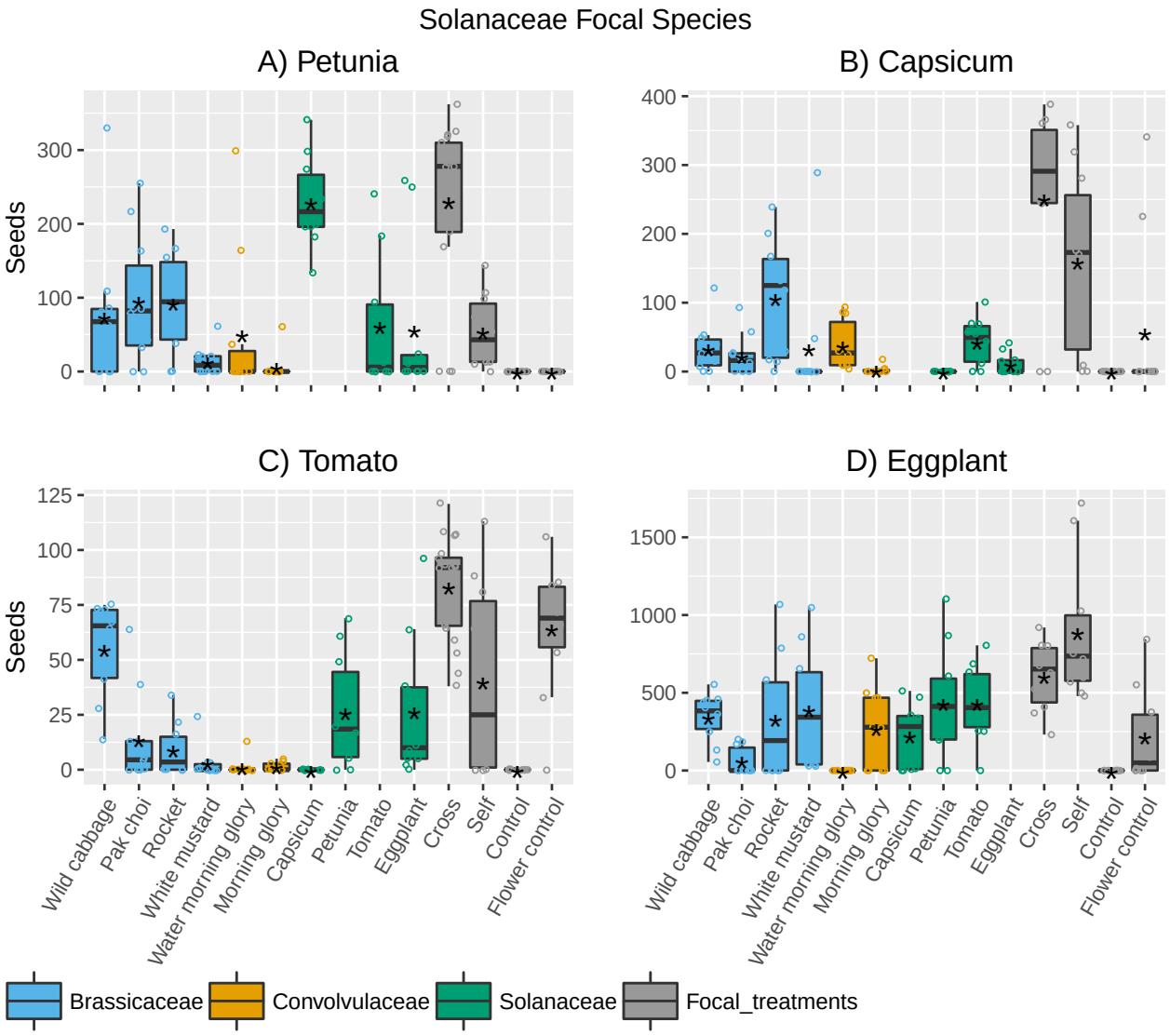

Figure 1. Seed set of Solanaceae species with the different pollination treatments (N=10) A) Petunia, B) Capsicum, C) Tomato, D) Eggplant. In total 9 different crosses with 50% heterospecific pollen appear from left to right. The focal treatment with itself is shown in blank to maintain simmetry among pannels. Moreover, for each species are also shown in grey hand cross pollination, hand self pollination, control (bagged emasculated flowers) and flower control (bagged flowers).

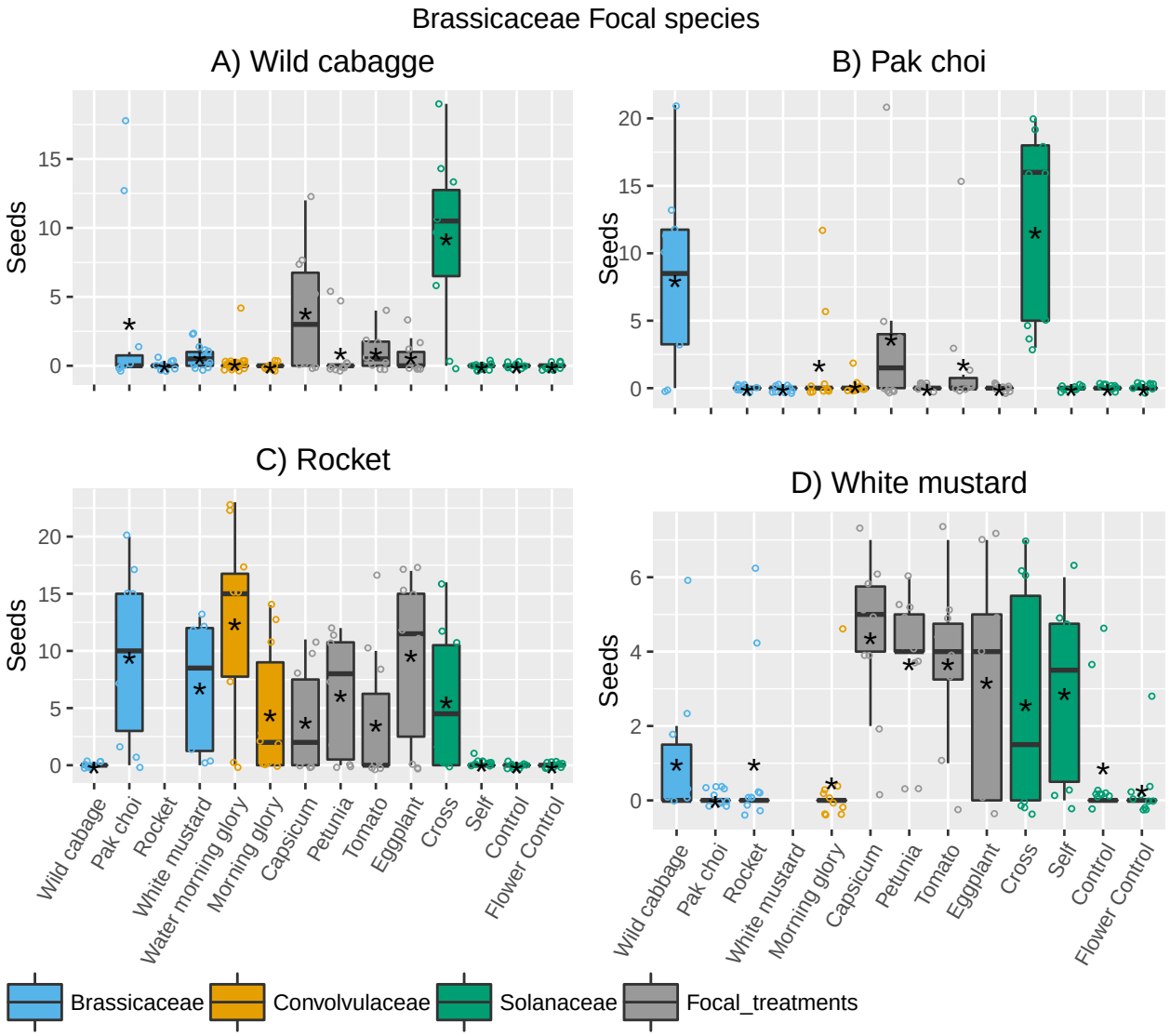

Figure 2. Seed set of Brassicaceae species with the different pollination treatments (N=10) A) Wild cabbage, B) Pak choi, C) Rocket, D) White mustard. In total 9 different crosses with 50% heterospecific pollen appear from left to right. The focal treatment with itself is shown in blank to maintain simmetry among pannels. Moreover, for each species are also shown in grey hand cross pollination, hand self pollination, control (bagged emasculated flowers) and flower control (bagged flowers).

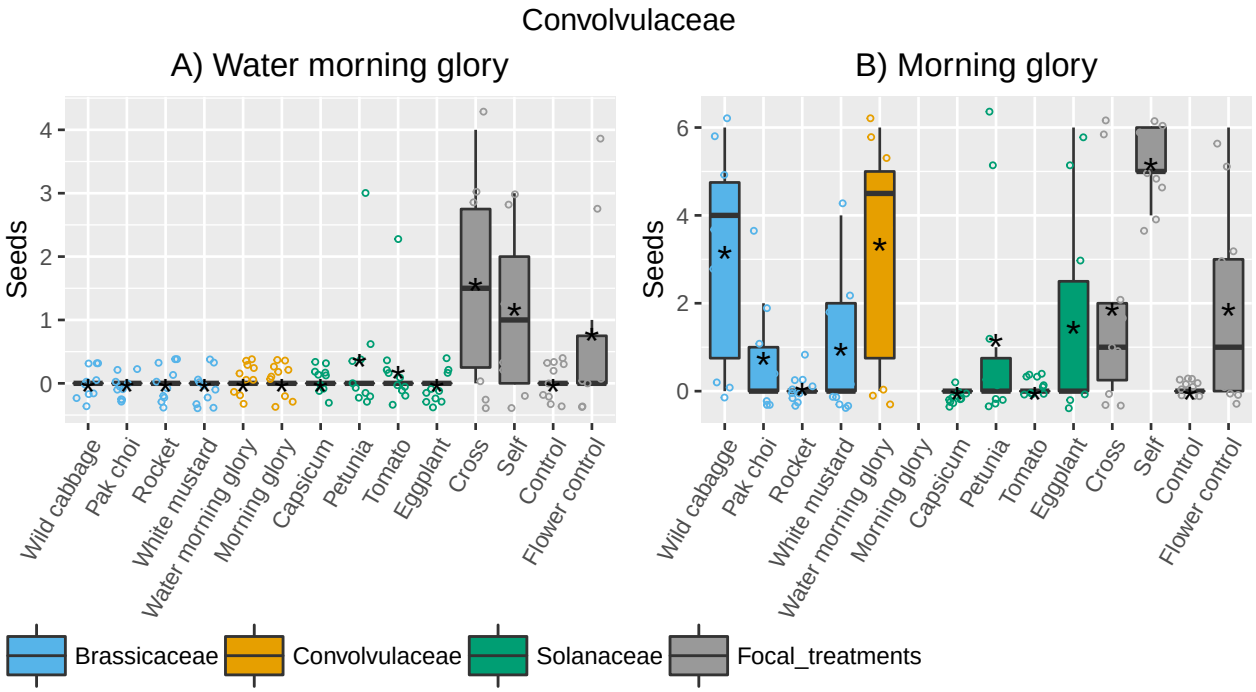

Figure 3. Seed set of Convolvulaceae species with the different pollination treatments (N=10) A) Water morning glory, B) Morning glory. In total 9 different crosses with 50% heterospecific pollen appear from left to right. The focal treatment with itself is shown in blank to maintain simmetry among pannels. Moreover, for each species are also shown in grey hand cross pollination, hand self pollination, control (bagged emasculated flowers) and flower control (bagged flowers).

CHOLOROPLAST RBCL PHYLOGENY

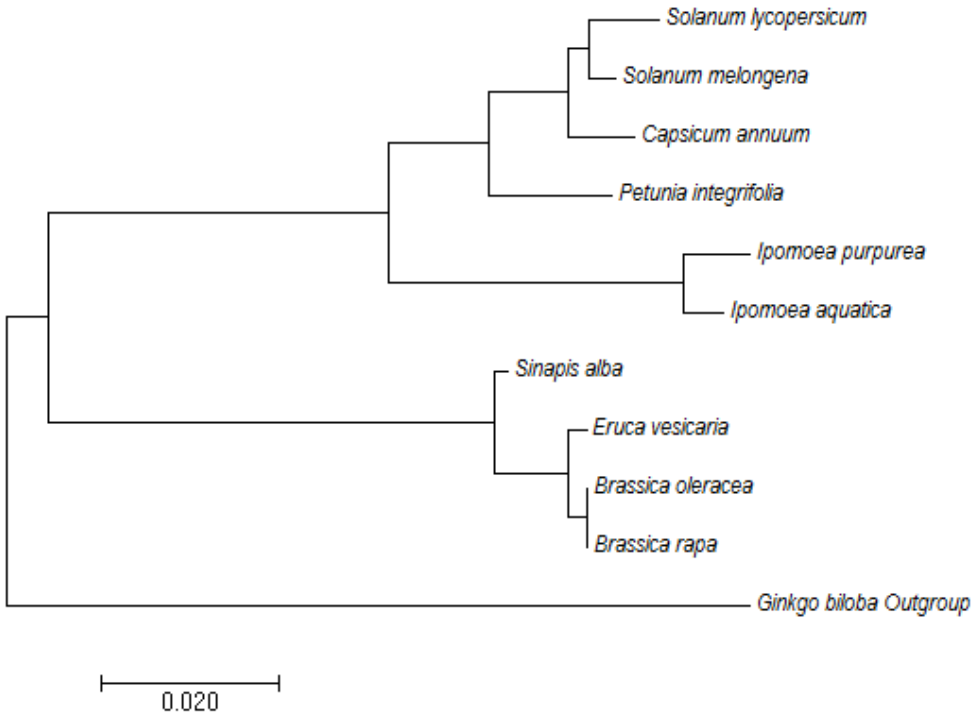

Figure 4. Evolutionary distances of the ten species used in the experiment using maximum composite likelihood method.

POLLEN MIX RATIOS PER FAMILY -3 NEXT PAGES- (N=3)

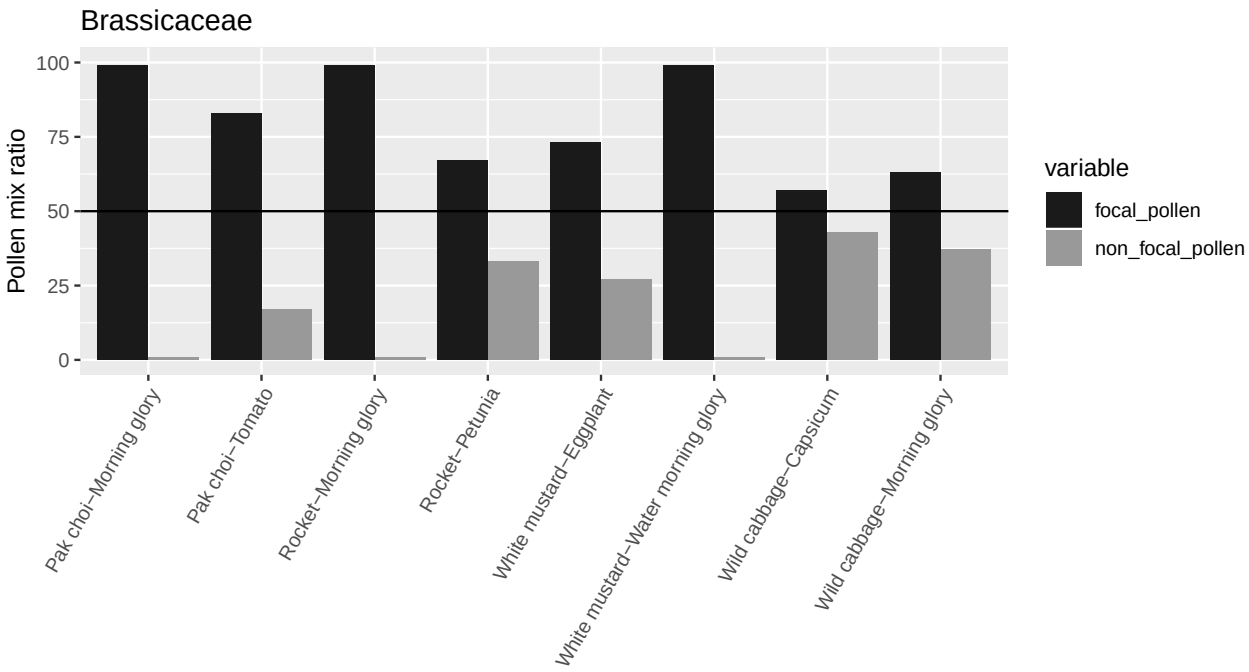

Figure 5. Percentage of pollen deposited on the stigma of a subset of species of the Brassicaceae family with pollen mixes with the other two families (N=3). The black line represents the theoretical 50% pollen percentage of our mixes. The sample that was in ethanol was dried in a heater (few days) and then the solution was filled with sodium hydroxide to degradate the tissue. Once the tissue was soft, all the solution plus the tissue was placed on a grid and the whole quantity of the microtube was counted.

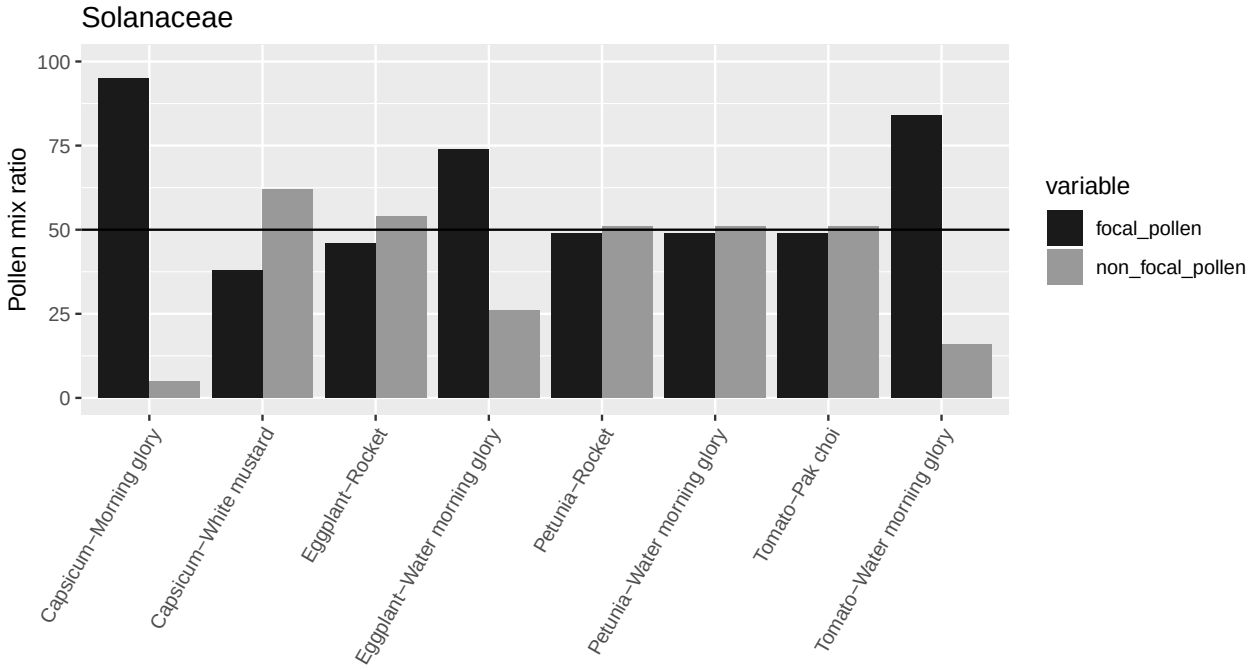

Figure 6. Percentage of pollen deposited on the stigma of a subset of species of the Solanaceae family with pollen mixes with the other two families (N=3). The black line represents the theoretical 50% pollen percentage of our mixes. The sample that was in ethanol was dried in a heater (few days) and then the solution was filled with sodium hydroxide to degradate the tissue. Once the tissue was soft, all the solution plus the tissue was placed on a grid and the whole quantity of the microtube was counted.

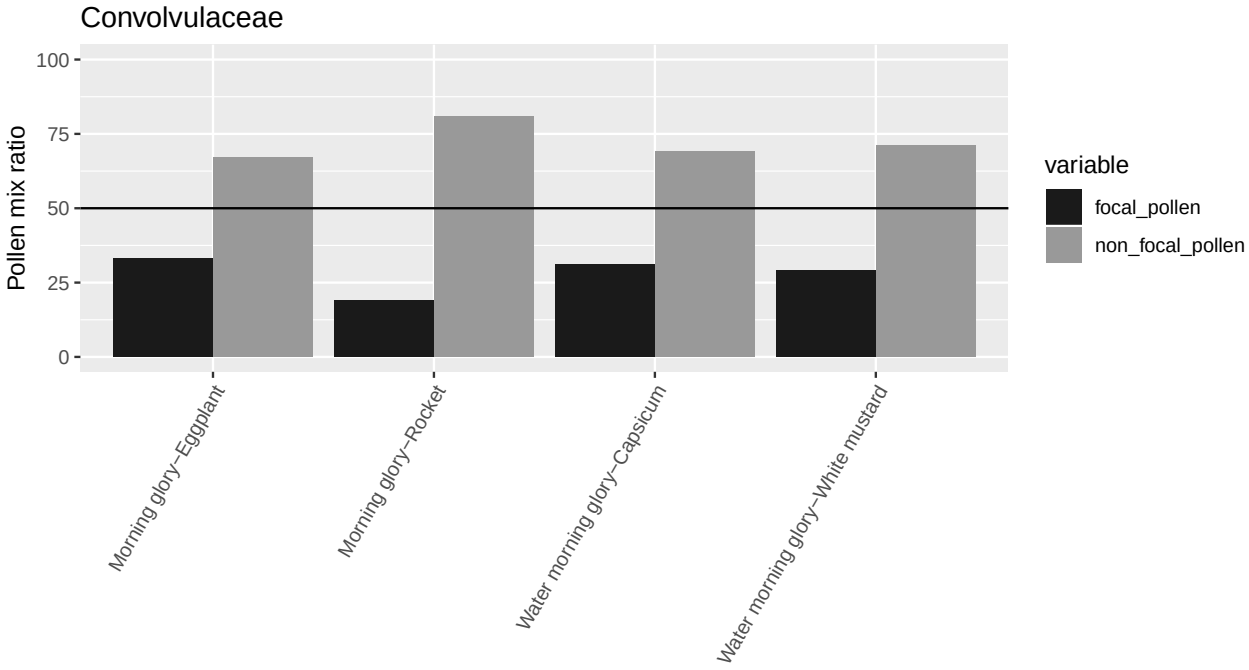

Figure 7. Percentage of pollen deposited on the stigma of a subset of species of the Convolvulaceae family with pollen mixes with the other two families (N=3). The black line represents the theoretical 50% pollen percentage of our mixes. The sample that was in ethanol was dried in a heater (few days) and then the solution was filled with sodium hydroxide to degradate the tissue. Once the tissue was soft, all the solution plus the tissue was placed on a grid and the whole quantity of the microtube was counted.

TOTAL POLLEN ON STIGMA -NEXT 3 PAGES-

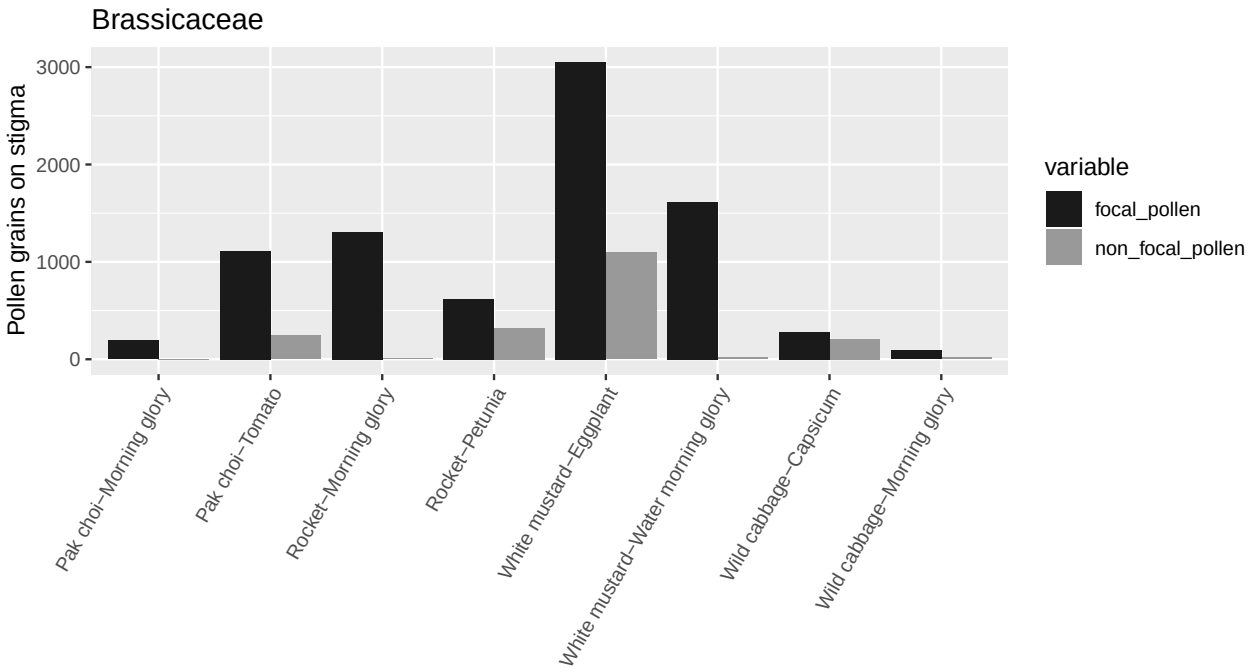

Figure 8. Total pollen deposited on the stigma of a subset of species of the Brassicaceae family with pollen mixes with the other two families (N=3). The sample that was in ethanol was dried in a heater (few days) and then the solution was filled with sodium hydroxide to degradate the tissue. Once the tissue was soft, all the solution plus the tissue was placed on a grid and the whole quantity of the microtube was counted.

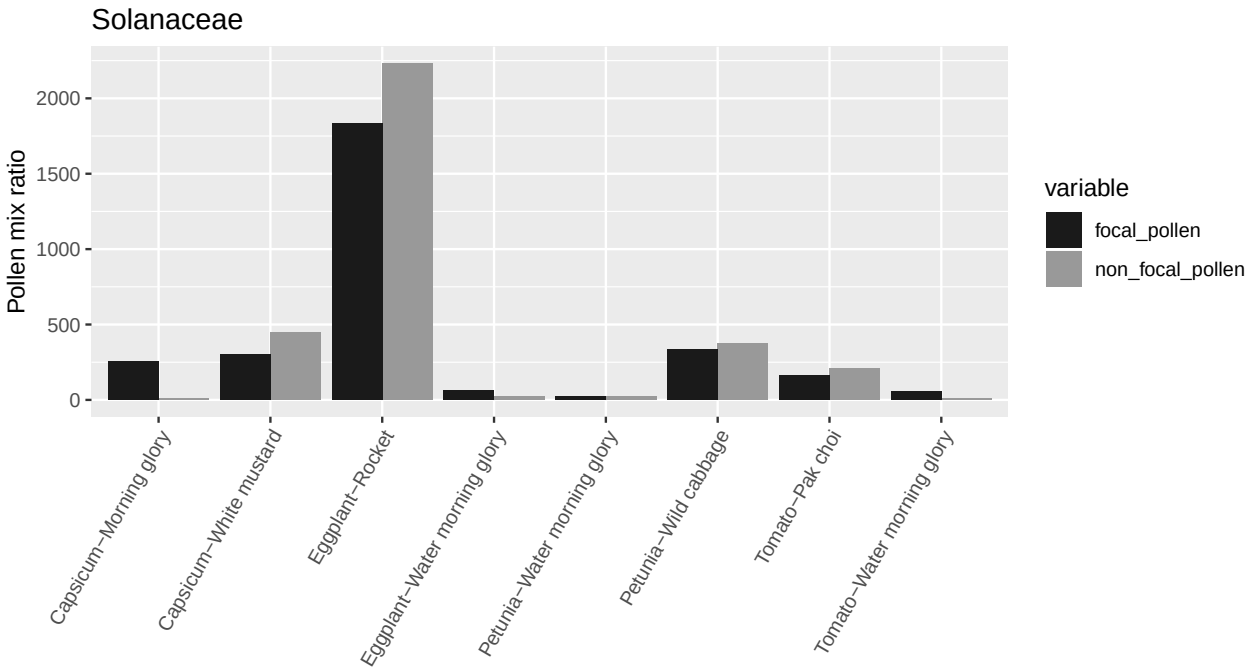

Figure 9. Total pollen deposited on the stigma of a subset of species of the Solanaceae family with pollen mixes with the other two families (N=3). The sample that was in ethanol was dried in a heater (few days) and then the solution was filled with sodium hydroxide to degradate the tissue. Once the tissue was soft, all the solution plus the tissue was placed on a grid and the whole quantity of the microtube was counted.

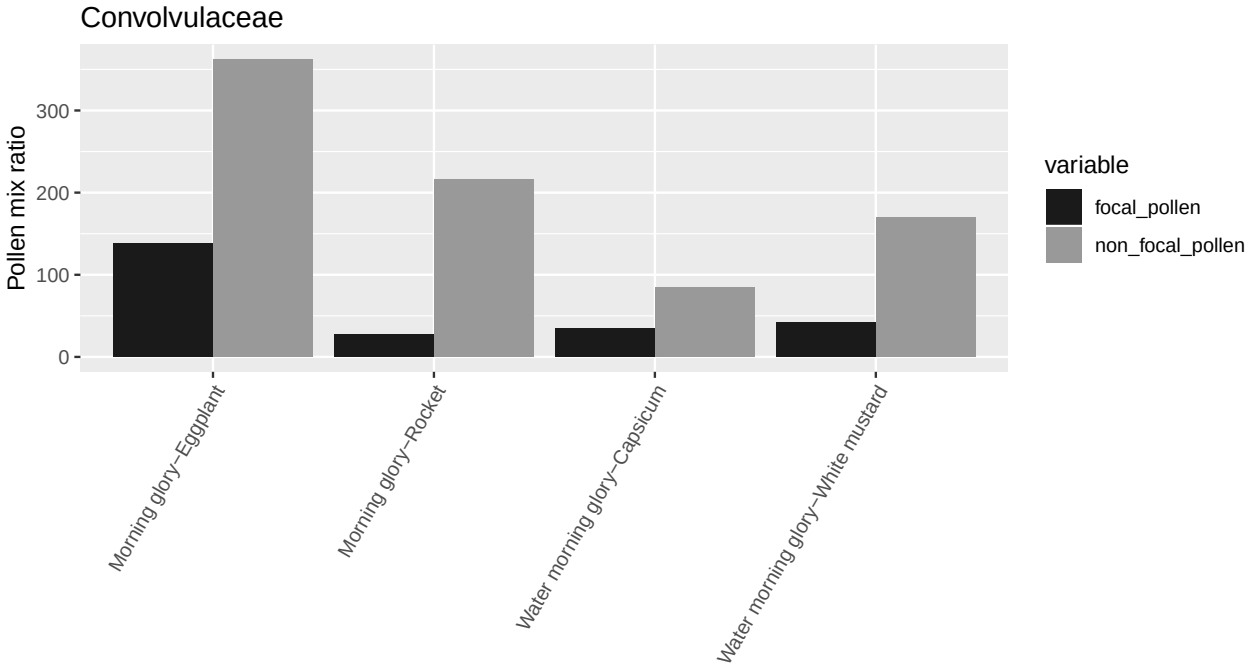

Figure 10. Total pollen deposited on the stigma of a subset of species of the Convolvulaceae family with pollen mixes with the other two families (N=3). The sample that was in ethanol was dried in a heater (few days) and then the solution was filled with sodium hydroxide to degradate the tissue. Once the tissue was soft, all the solution plus the tissue was placed on a grid and the whole quantity of the microtube was counted.

POLLEN PER ANTHER (N=20, I. aquatica N=10)

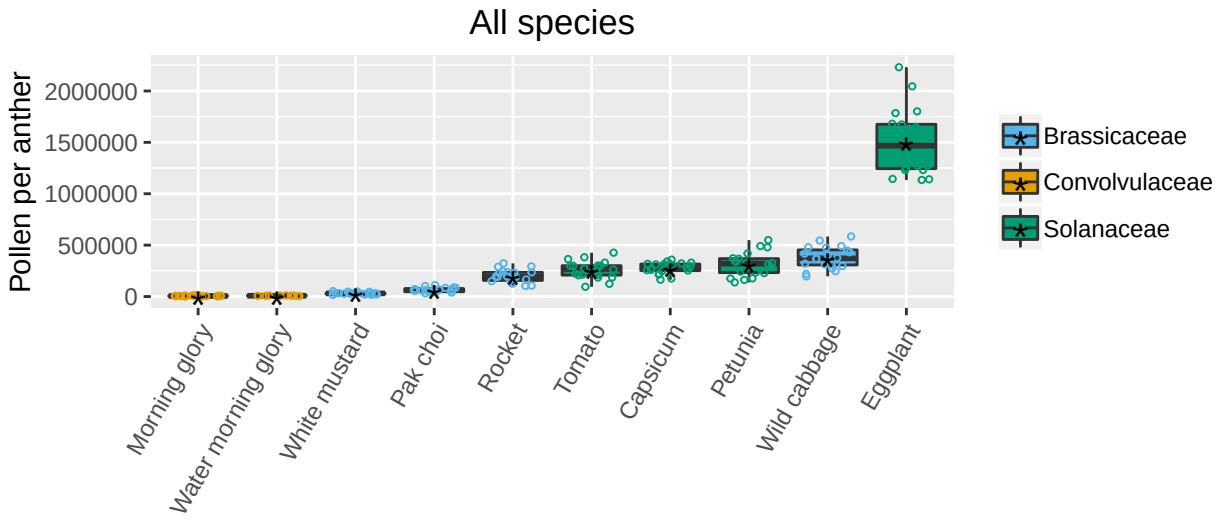

Figure 11. Pollen per anther of the ten species used in our artificial community belonging to three different families, Brassicaceae, Solanaceae and Convolvulaceae (N=20, I.aquatica N=10). Species are coloured by family. Pollen was counted with an hemocytometer.

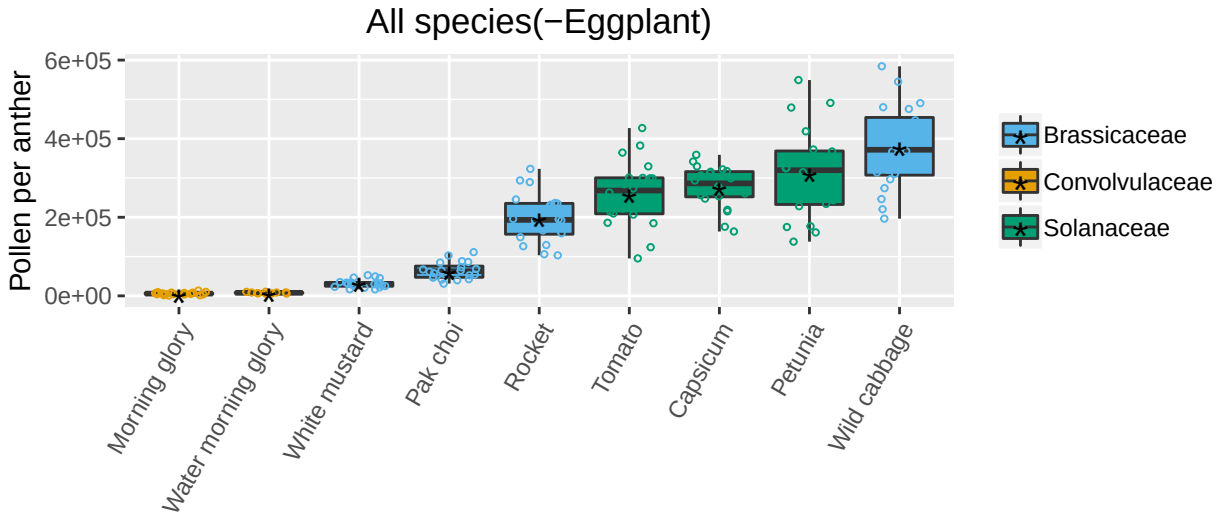

Figure 12. Pollen per anther of the species used in our artificial community belonging to three different families, Brassicaceae, Solanaceae and Convolvulaceae (N=20, I.aquatica N=10). Eggplant excluded in order to improve data visualization. Species are coloured by family. Pollen was counted with an hemocytometer.

OVULES (N=15)

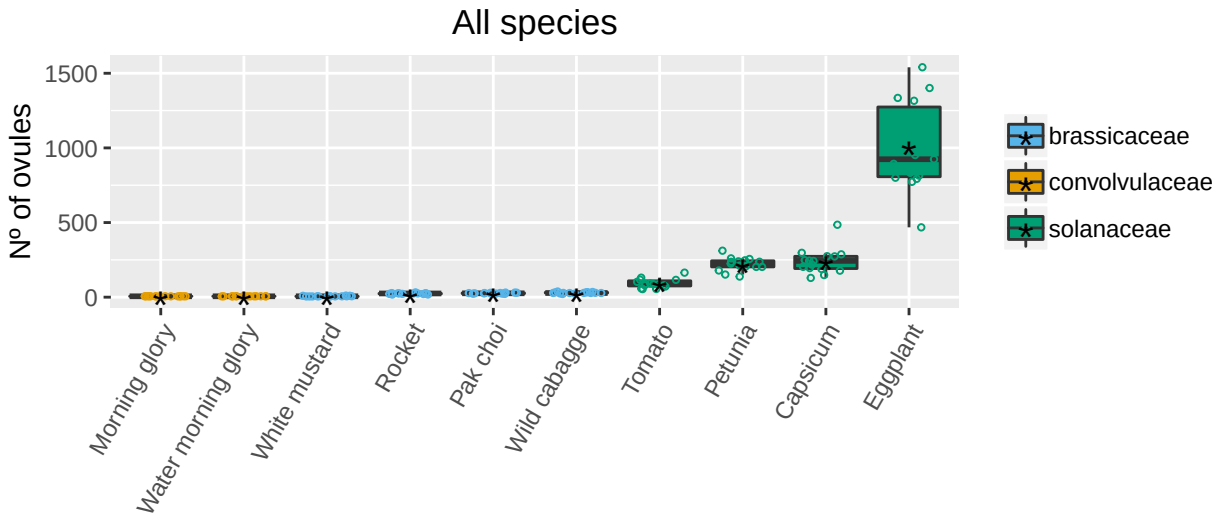

Figure 13. Number of ovules of the ten species (N=15). Species are coloured by family.

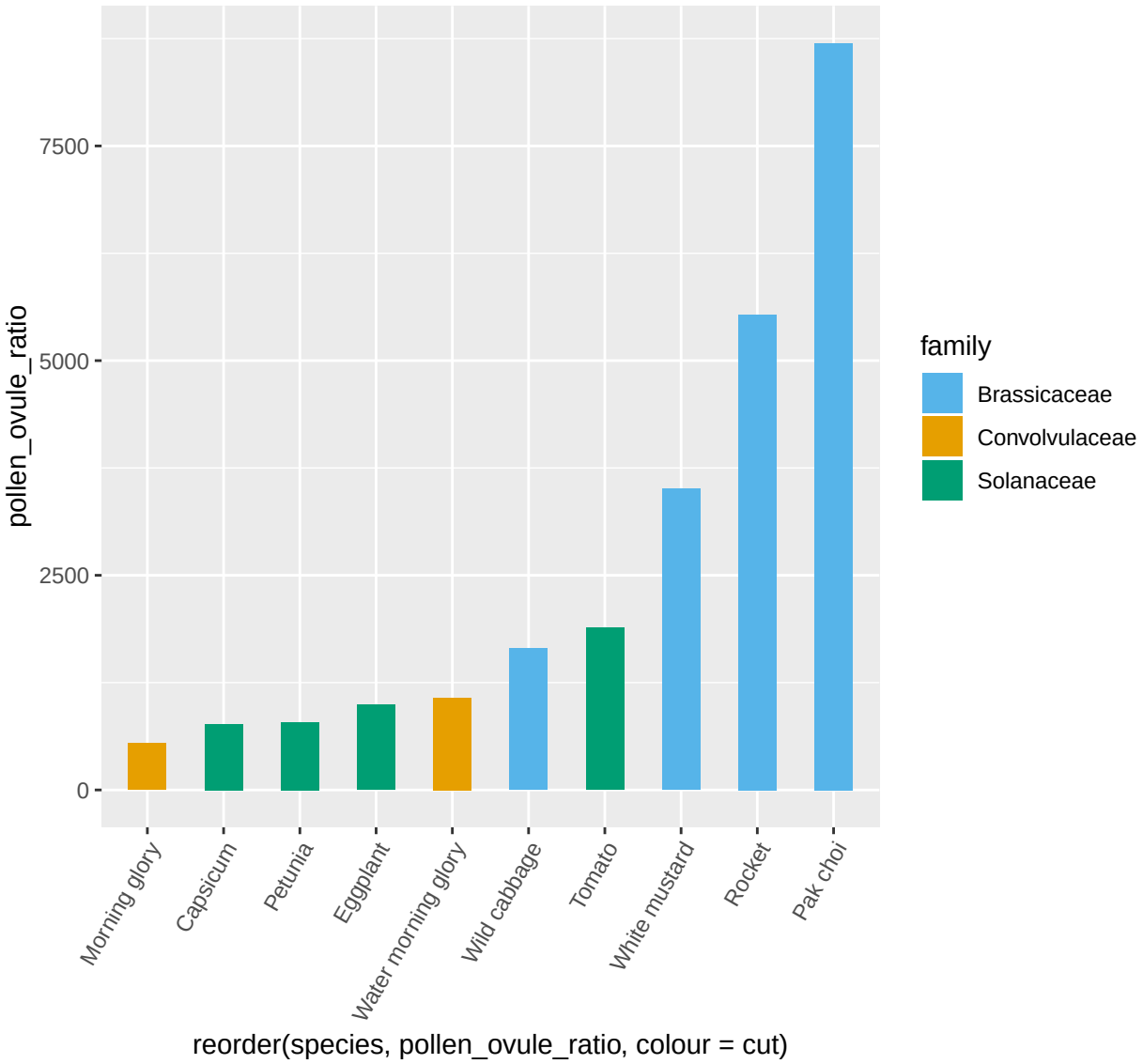

Figure 14. Pollen ovule ratio for all the species. Total pollen per flower was estimated by multiplying by the total number of anthers of the flower. Species are coloured by family.

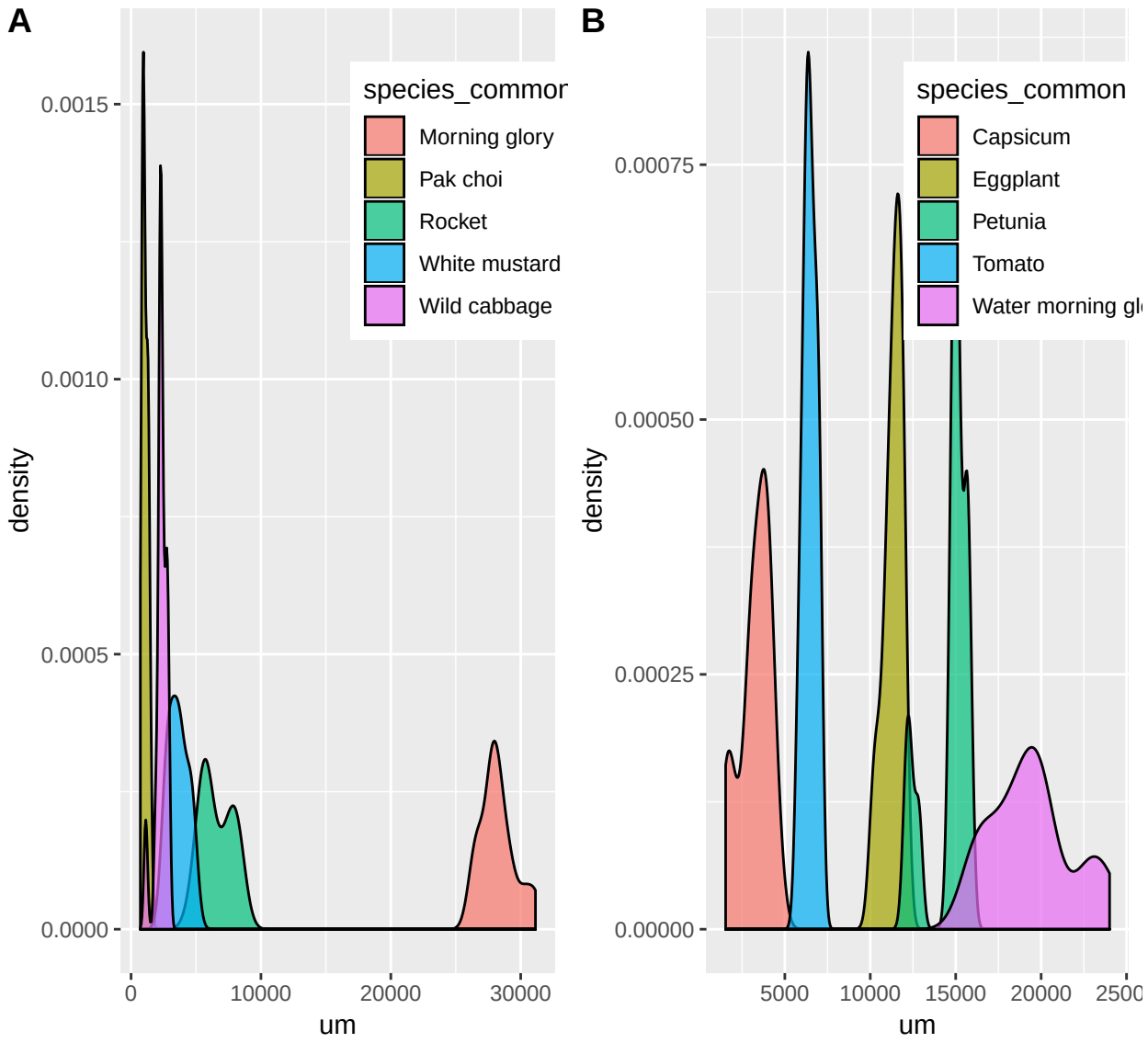

Figure 15. Density plot of the stigmatic area. The measurements were conducted with a stereo microscope. Species are divided in two pannels of 5 species each (4 Brassicaceae + 1 Convolvulaceae and 4 Solanaceae + 1 Convolvulaceae). The x axis shows the area in square micrometers.

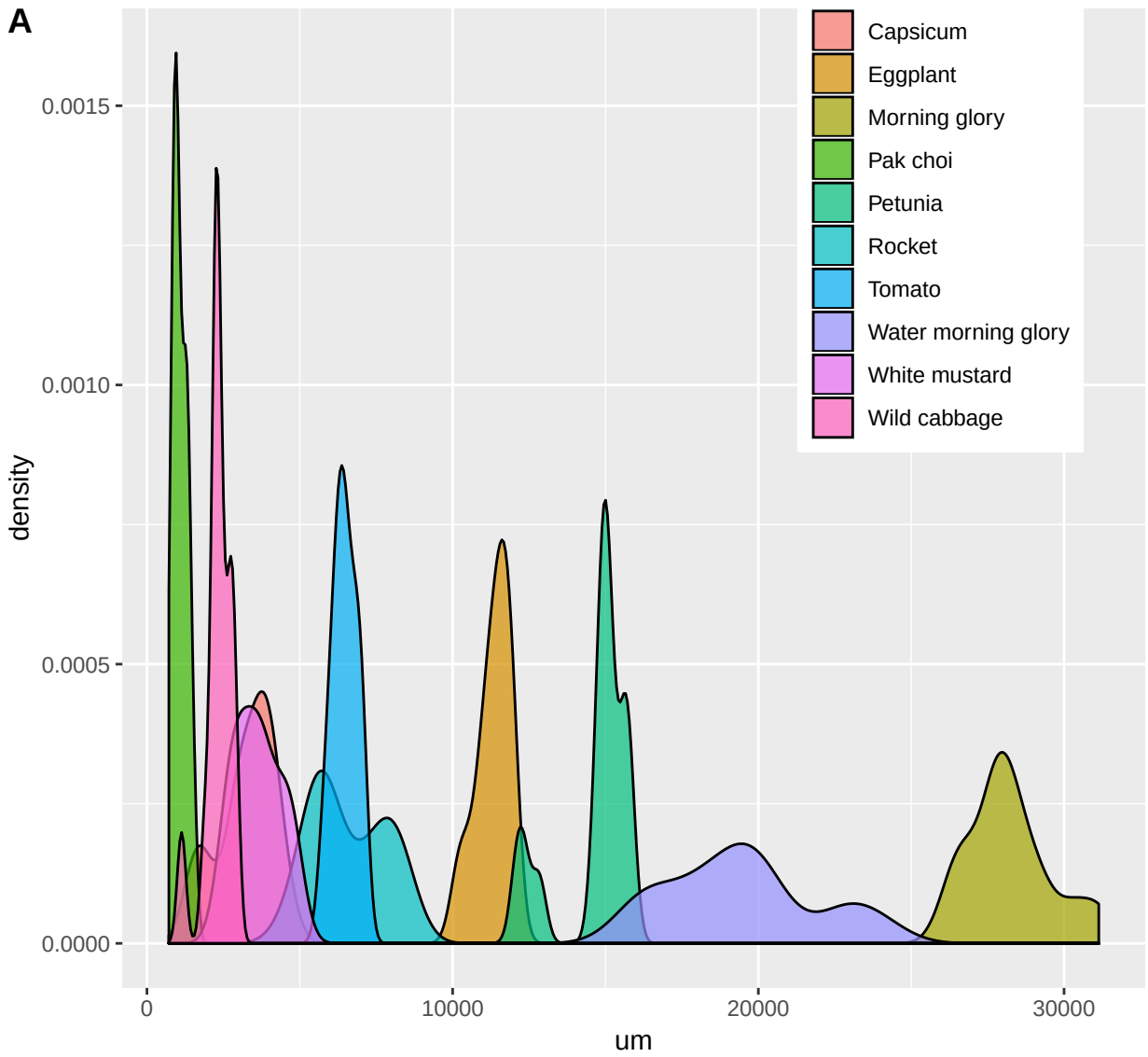

Figure 16. Density plot of the stigmatic area for all the species. The measurements were conducted with a stereo microscope. The x axis shows the area in square micrometers.

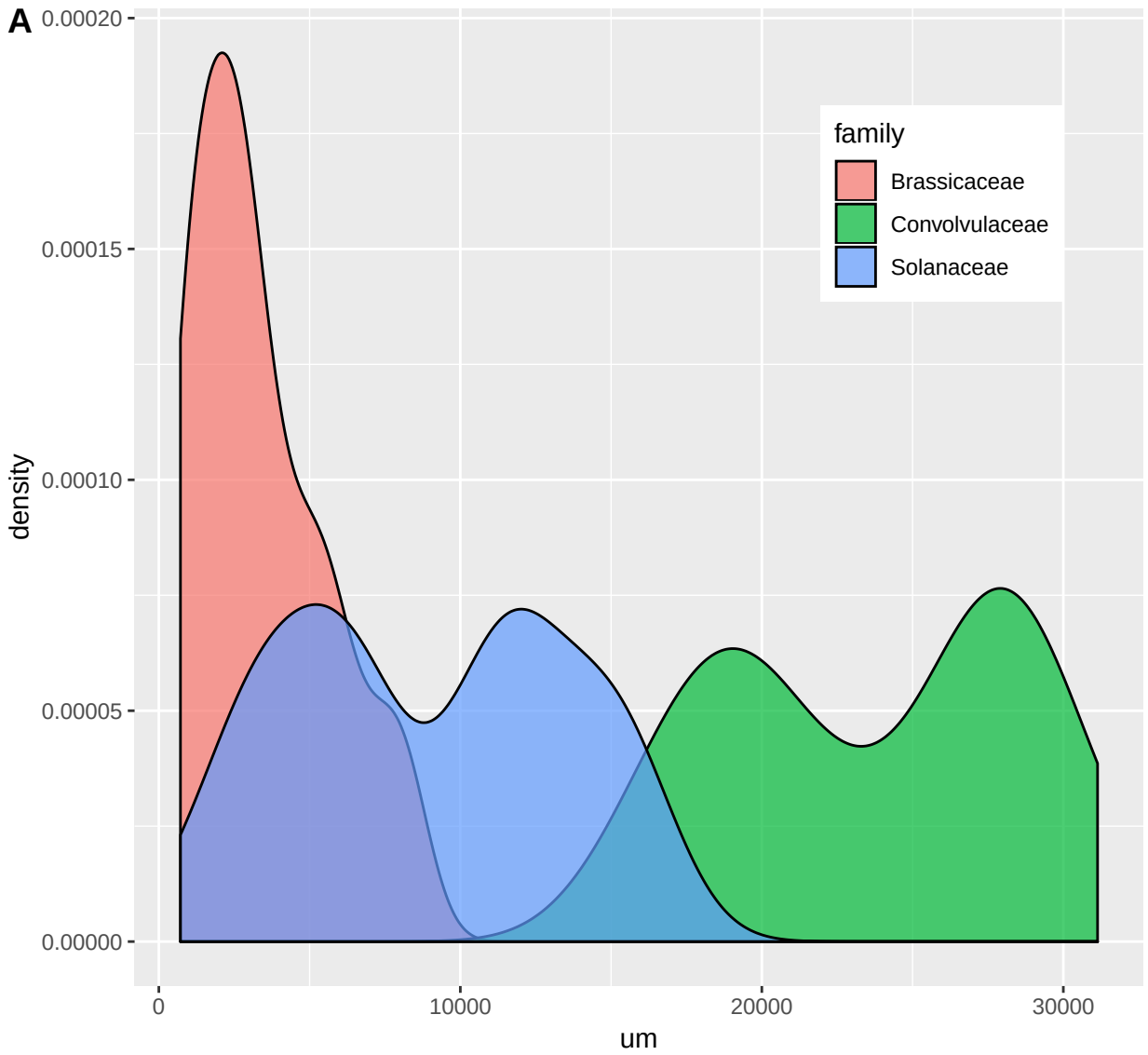

Figure 17. Density plot of the stigmatic area for the 10 species grouped by the three families: Brassicaceae, Solanaceae and Convolvulaceae. The measurements were conducted with a stereo microscope. The x axis shows the area in square micrometers.