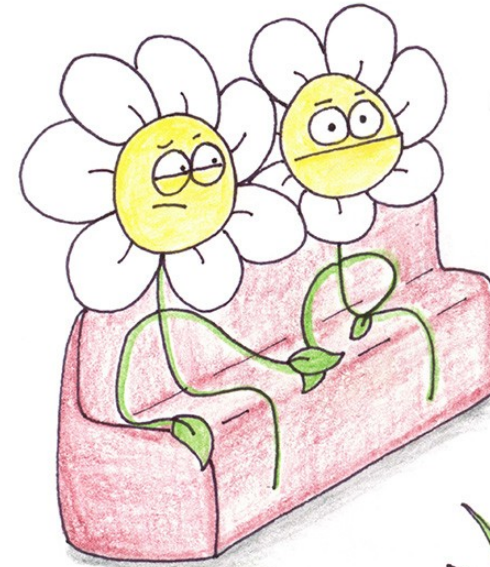
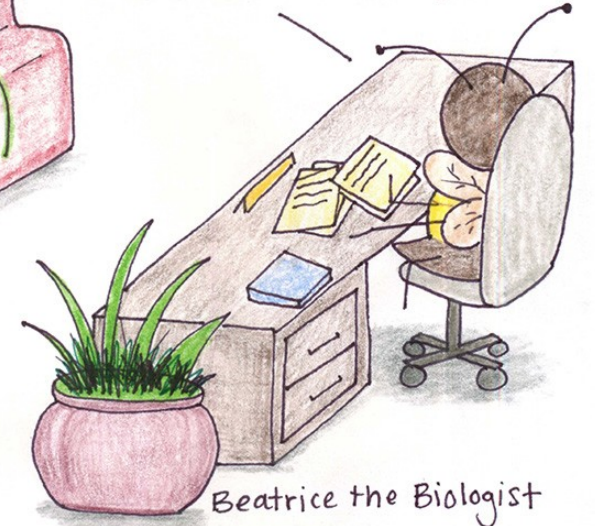


Plant breeding systems

and their evolutionary consequences

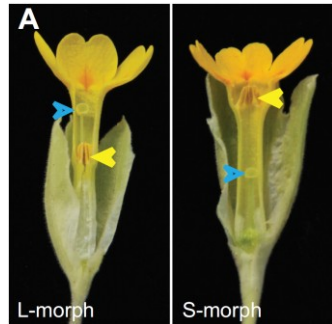
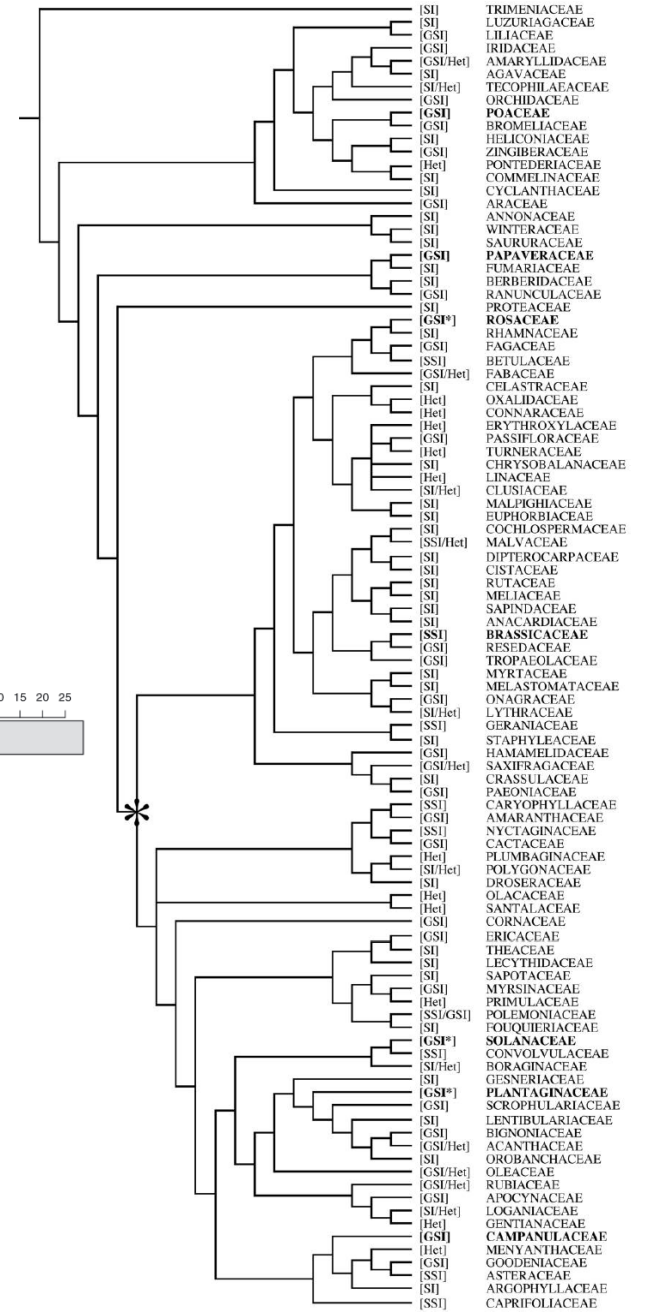
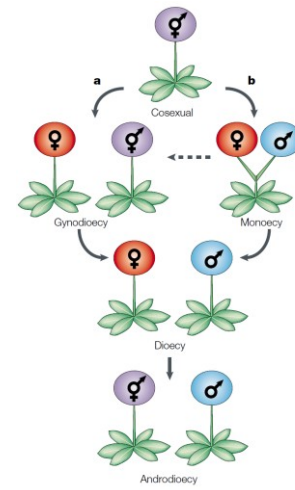
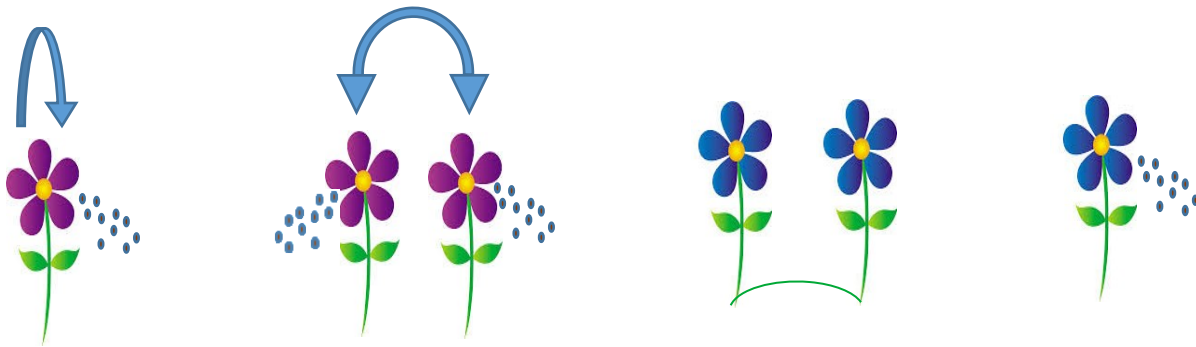


Yes, I can certainly help with that. Now when do you want the sex to occur? Does next Tuesday work?

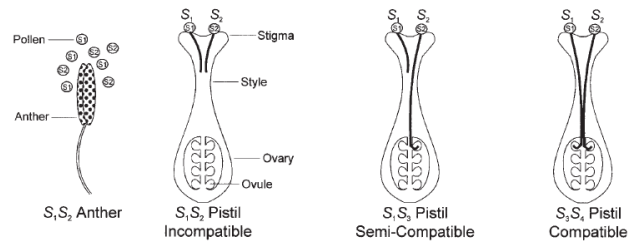


Beatrice the Biologist

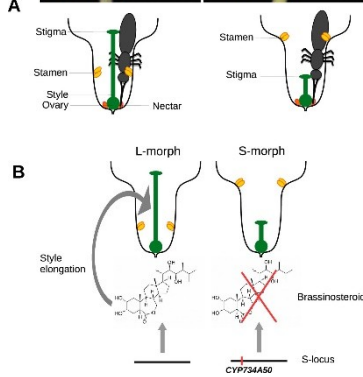
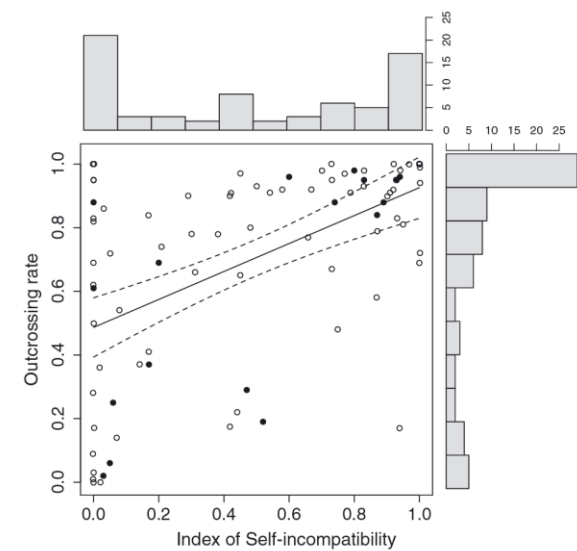
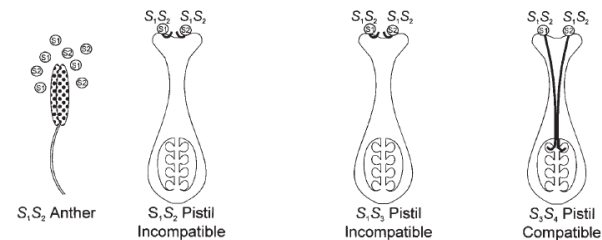
Sexual and asexual reproduction/propagation



A. Gametophytic Self-Incompatibility



B. Sporophytic Self-Incompatibility



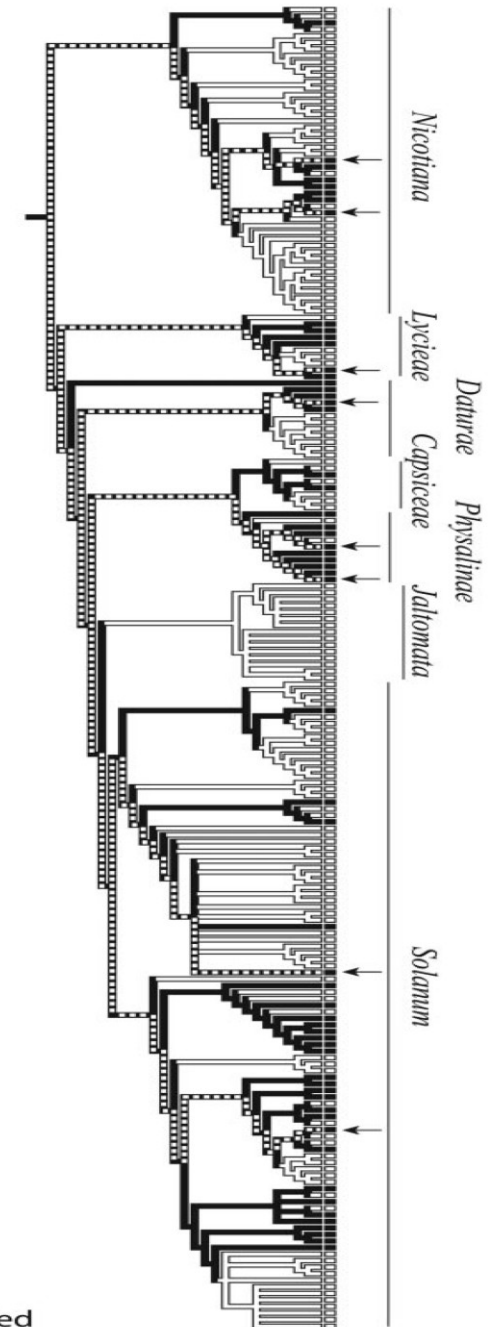
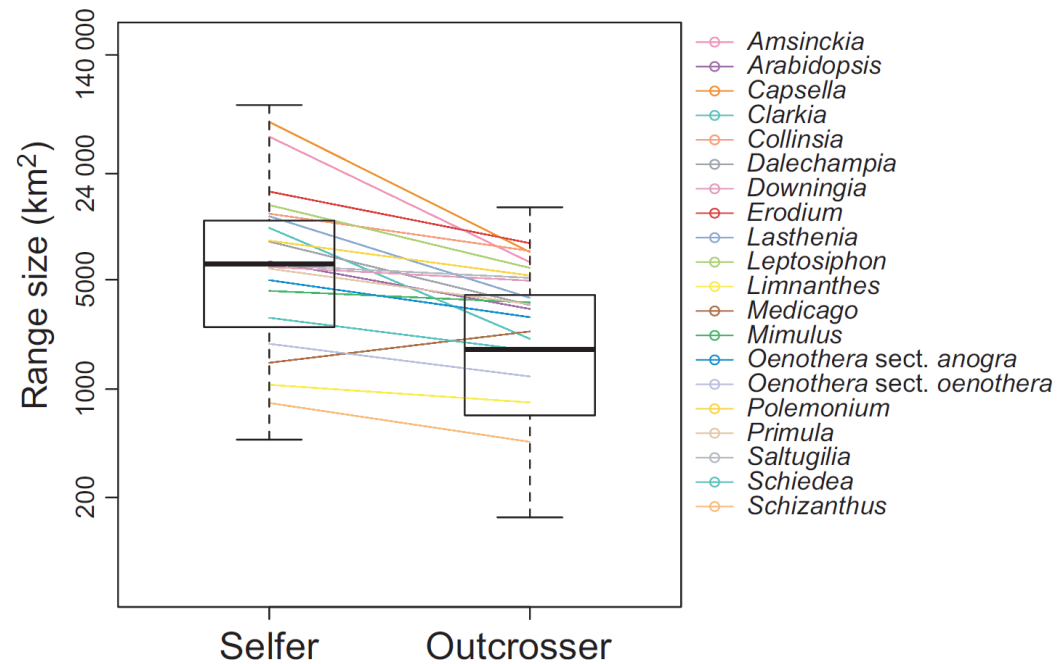
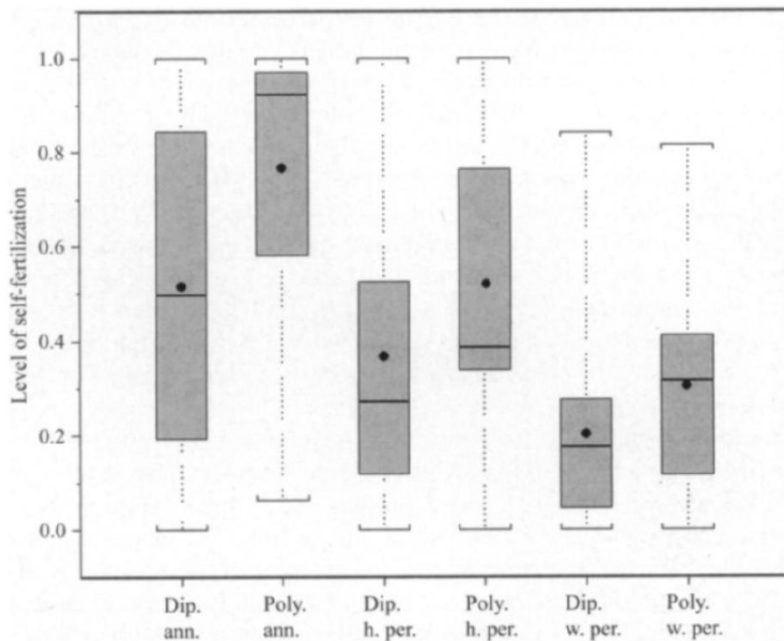
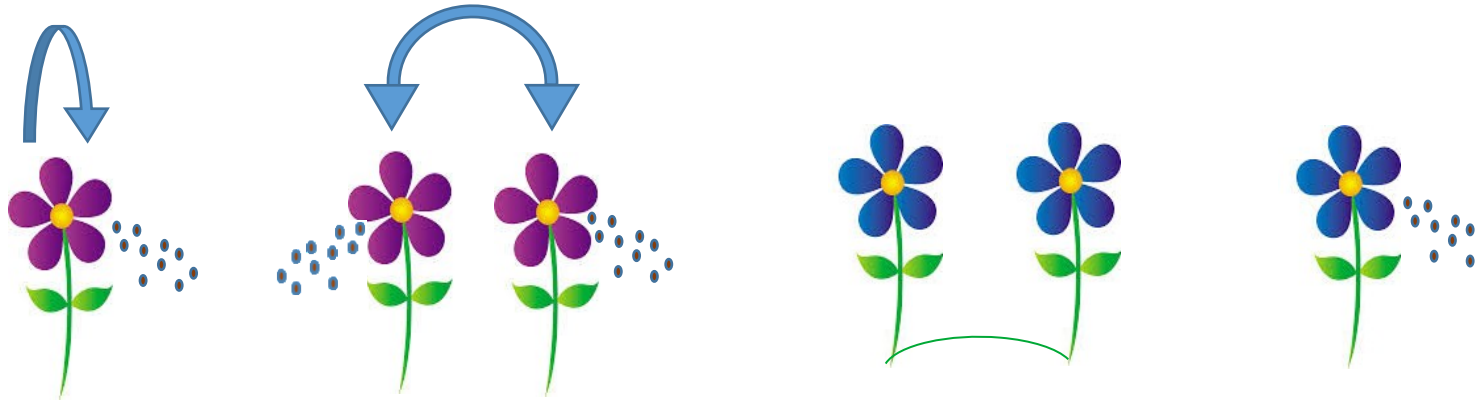
Barrett (2002) The evolution of plant sexual diversity. *Nature Reviews Genetics* **3**: 274-284.

Igic et al. (2008) Loss of self-incompatibility and its evolutionary consequences. *Int J Plant Sci* **169**: 93–104.

Raduski et al. (2011) The expression of self-incompatibility in angiosperms is bimodal. *Evolution* **66**: 1275-1283.

Huu et al. (2016) Presence versus absence of CYP734A50 underlies the style-length dimorphism in primroses. *eLife* **5**: e17956.

Cons and pros of plant breeding systems



Barringer (2007) Polyploidy and self-fertilization in flowering plants. *Am J Bot* **94**: 1527-1533.

Grossenbacher et al. (2015) Geographic range size is predicted by plant mating system. *Ecology Letters* **18**: 706-713.

Wright et al. (2013) Evolutionary consequences of self-fertilization in plants. *Proc Roy Soc B* **280**: 20130133.

Igic et al. (2006) Ancient polymorphism reveals unidirectional breeding system shifts. *PNAS* **31**: 1359-1363.

SC
SI
SI fixed