



Natalie Gonzalez

Leake/ARCS Atlanta Century Award

Ph.D. Student, Genetics

Third Year ARCS Scholar

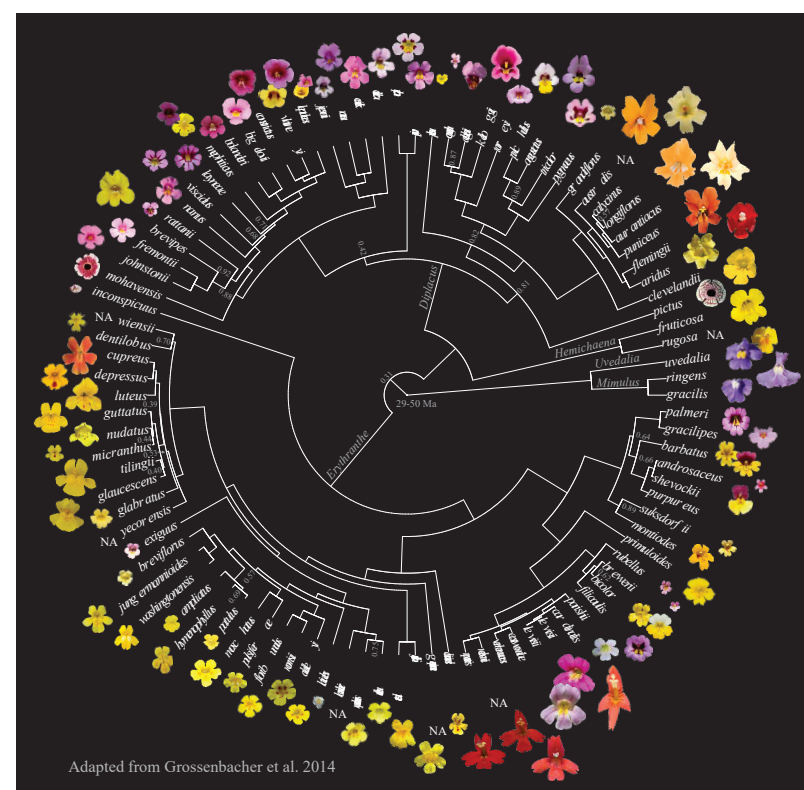


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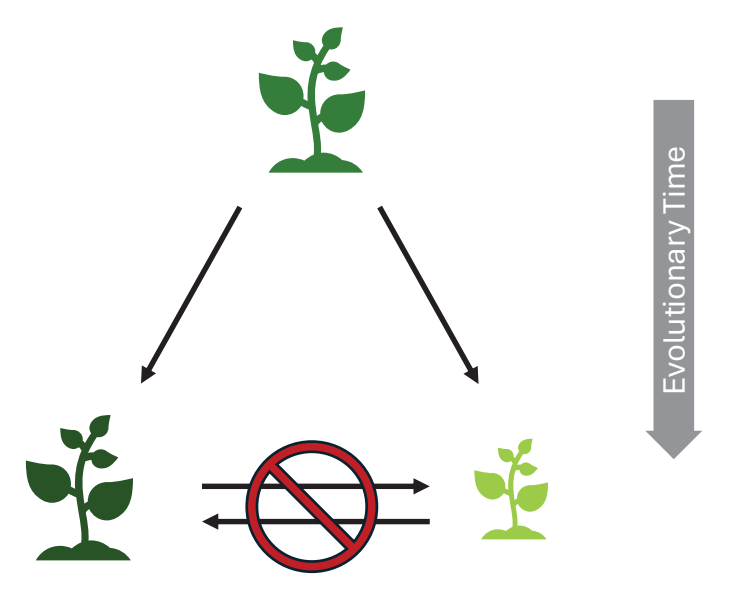
Identifying genetic barriers to hybridization in *Mimulus* species

Hybrid seed lethality and sterility are common in crosses of flowering plant species. My work attempts to identify both the genetic and evolutionary causes using three closely related species of Yellow Monkeyflowers.

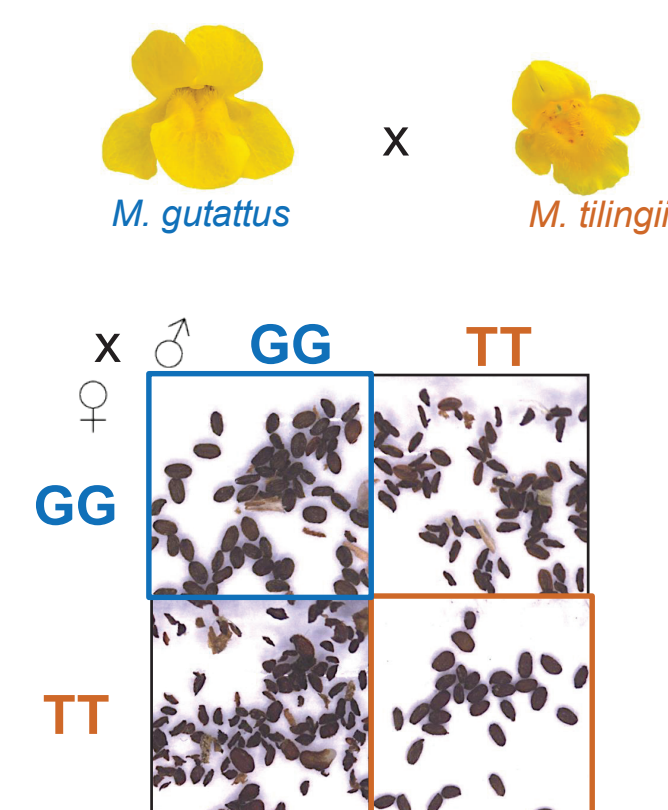
Understanding floral diversity



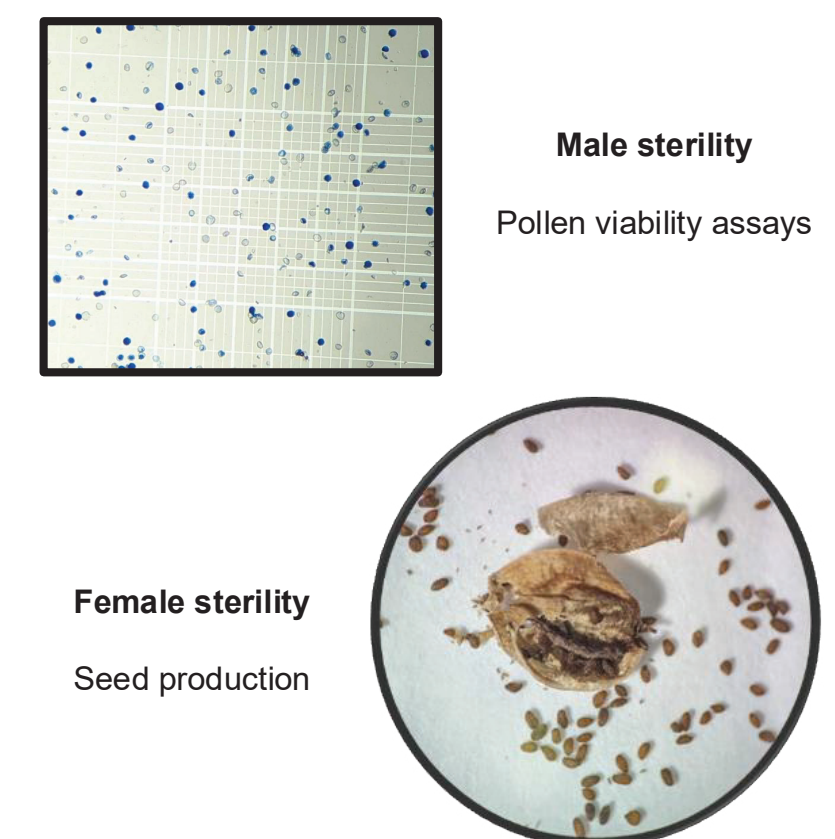
The formation of new species requires hybridization barriers



Hybrid Seed Lethality

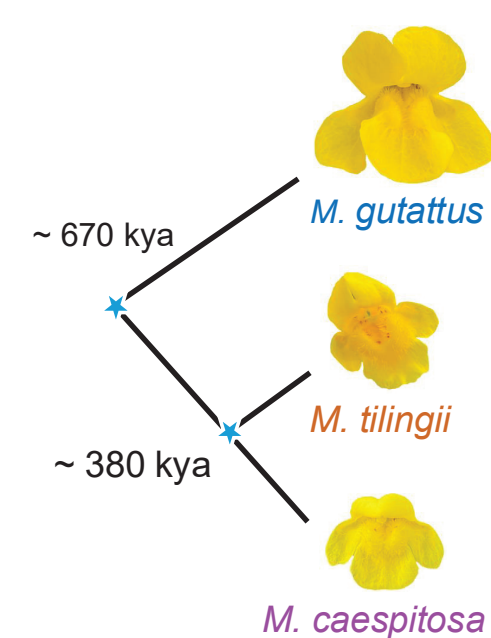


Hybrid Sterility



What genes cause seed lethality and sterility in hybrids?

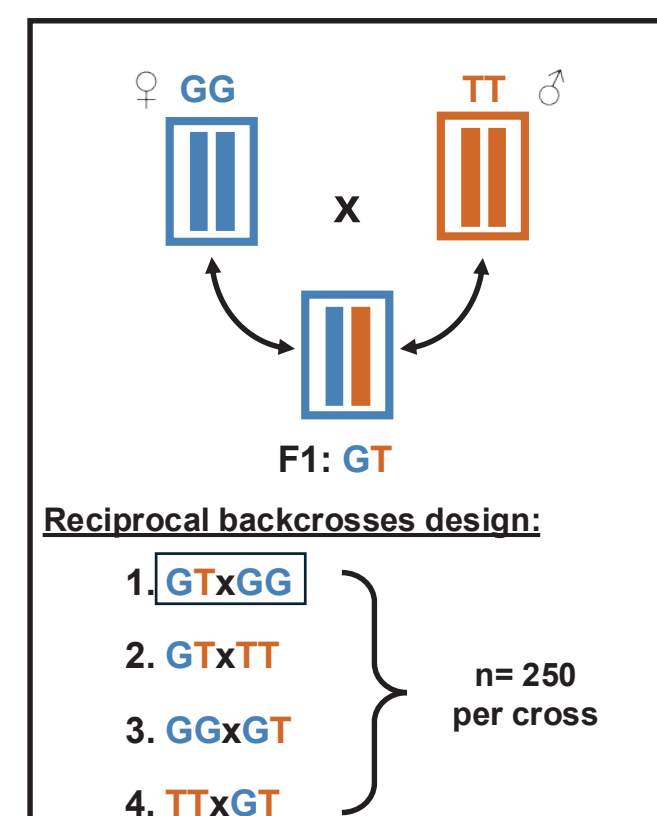
Strong hybridization barriers among *Mimulus* species



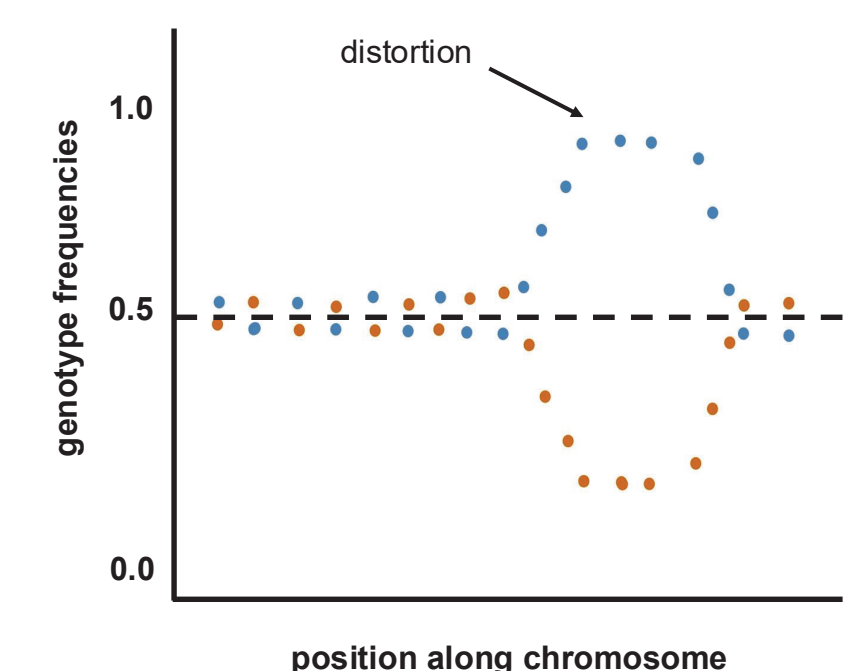
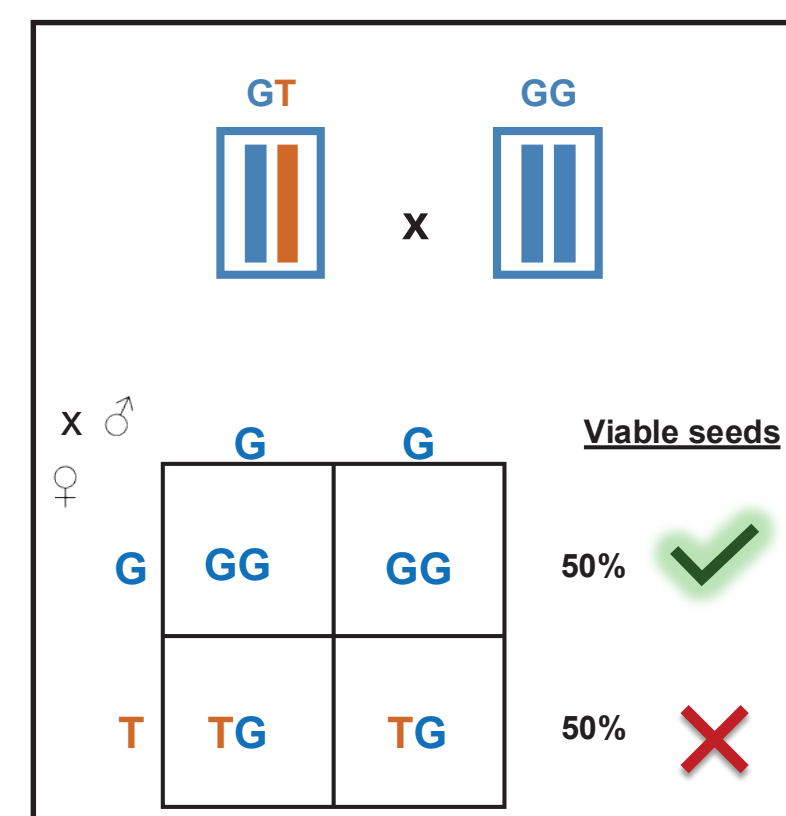
Viable hybrid seeds

$TT \times GG = <1\%$
 $GG \times TT = <1\%$

$CC \times TT = <1\%$
 $TT \times CC > 75\%$



Using expected patterns of heritability to identify candidate genes



Scholar Awards Celebration

November 12, 2025



Igniting
Innovation
in Georgia