

Planting Bee Forage

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What do bees need for nutrition?

- Pollen – required for larval development; primarily a source of protein but also lipids, vitamins & minerals.
- Nectar – primarily an energy source (sugars) but also amino acids, salts and secondary metabolites (which may have antibiotic properties).

What are the best plants for bees?

Plants that need bees for pollination.

Useful plant families: Brassicaceae (mustard family), Fabaceae (legumes), and Rosaceae (rose family).

Advantages of legumes

- Affordable & easy-to-access seed
- Many non-weedy options
- Nitrogen fixation
- Long bloom periods
- Several perennial species

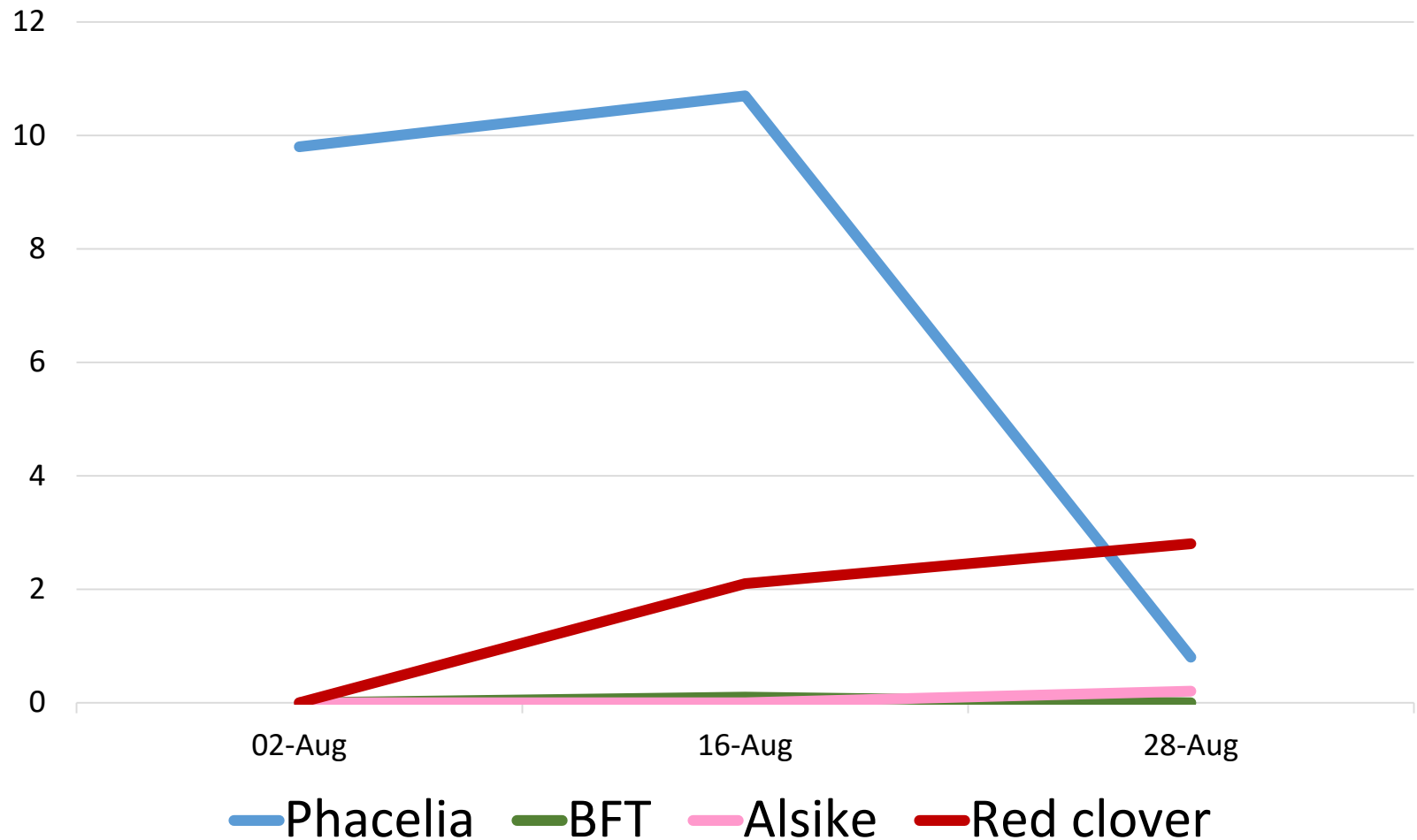
Evaluation of flower species for bees

- Plots of single species and commercial pollinator mixes.
- Developed a pollinator mix based on the results, which were part of Dr. Robyn McCallum's thesis work.

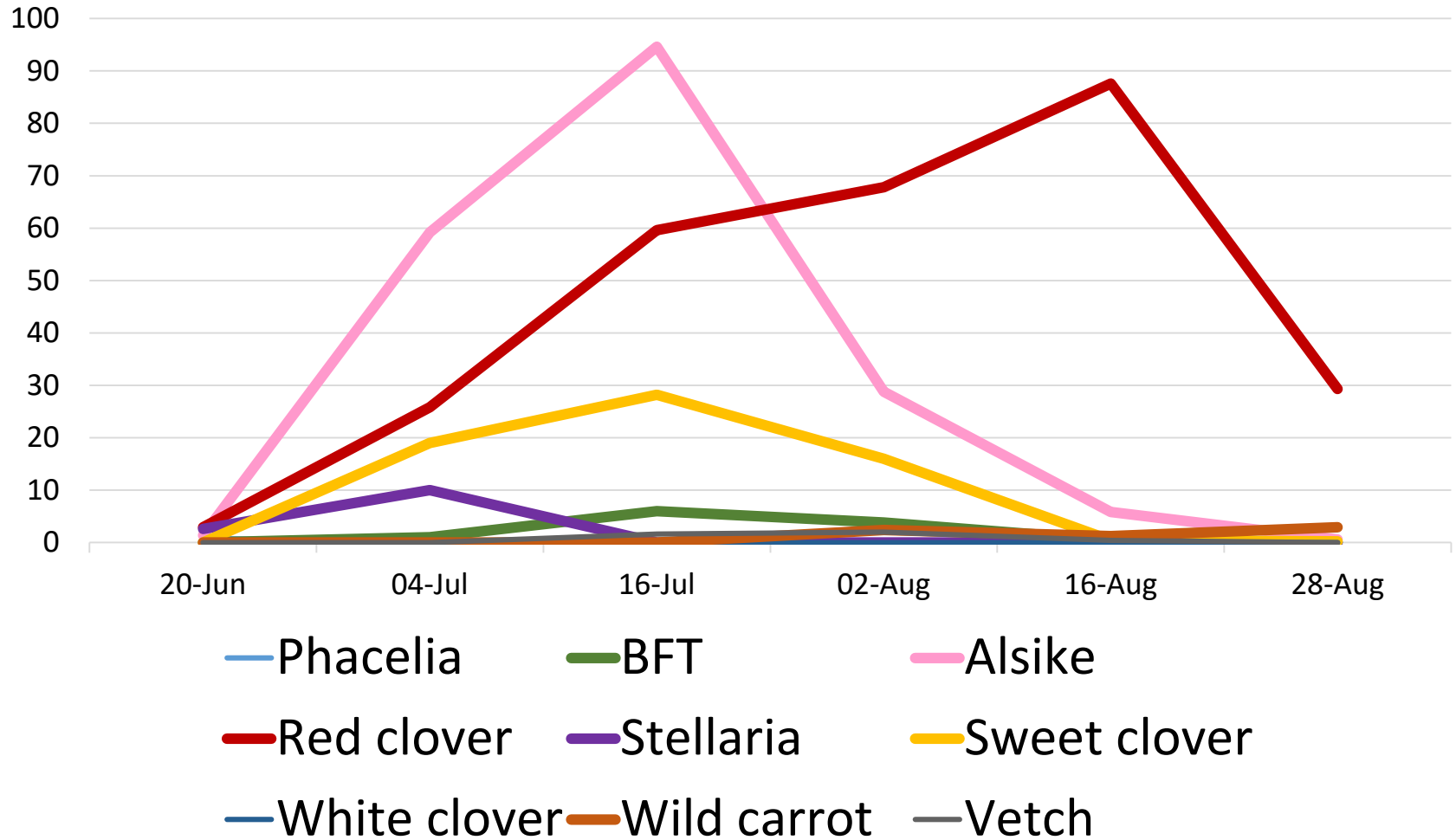
Pollinator mix

Species	kg ha ⁻¹ (% by wt)
Timothy	2.5 (10)
Alsike clover	2.5 (10)
Red clover	5 (20)
Sweet clover	5 (20)
Birdsfoot trefoil	5 (20)
Phacelia	5 (20)
total	25 (100)

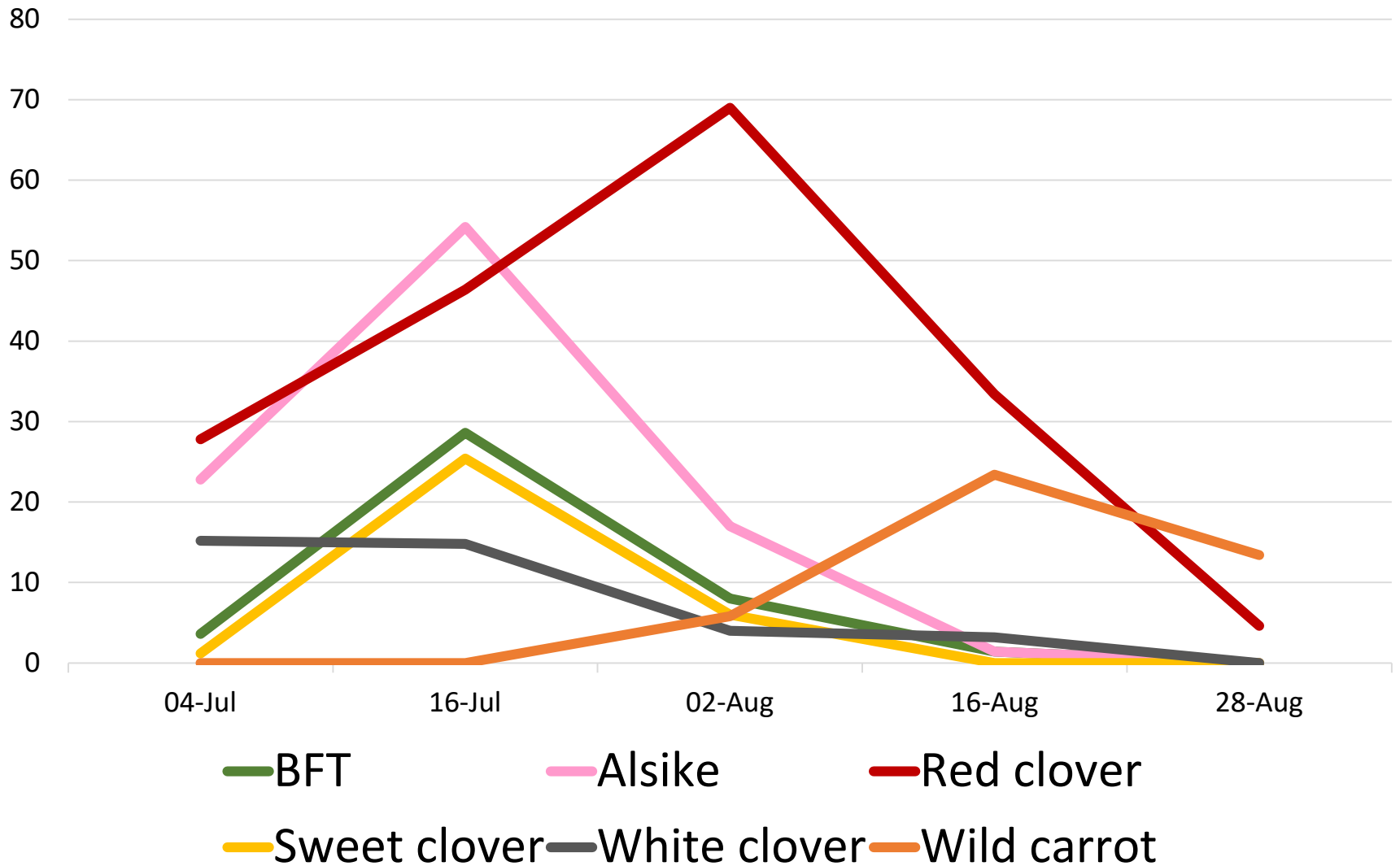
Year 1 Site Inflorescences m⁻²



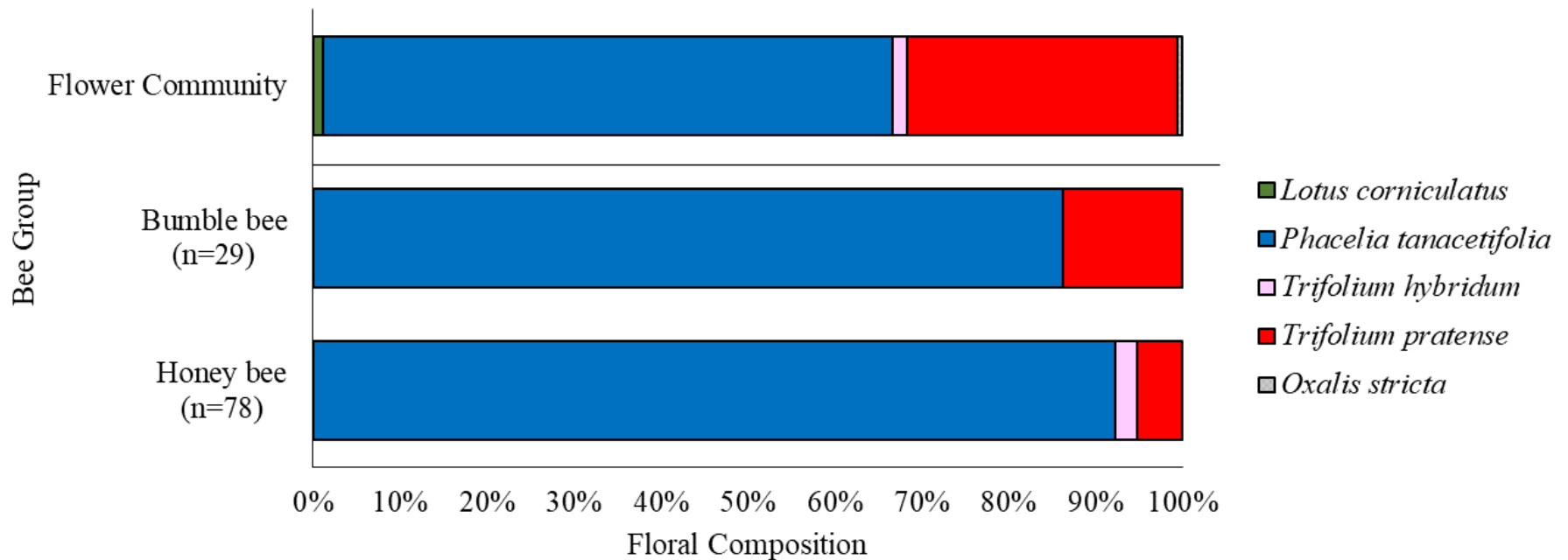
Year 2 Site Inflorescences m⁻²



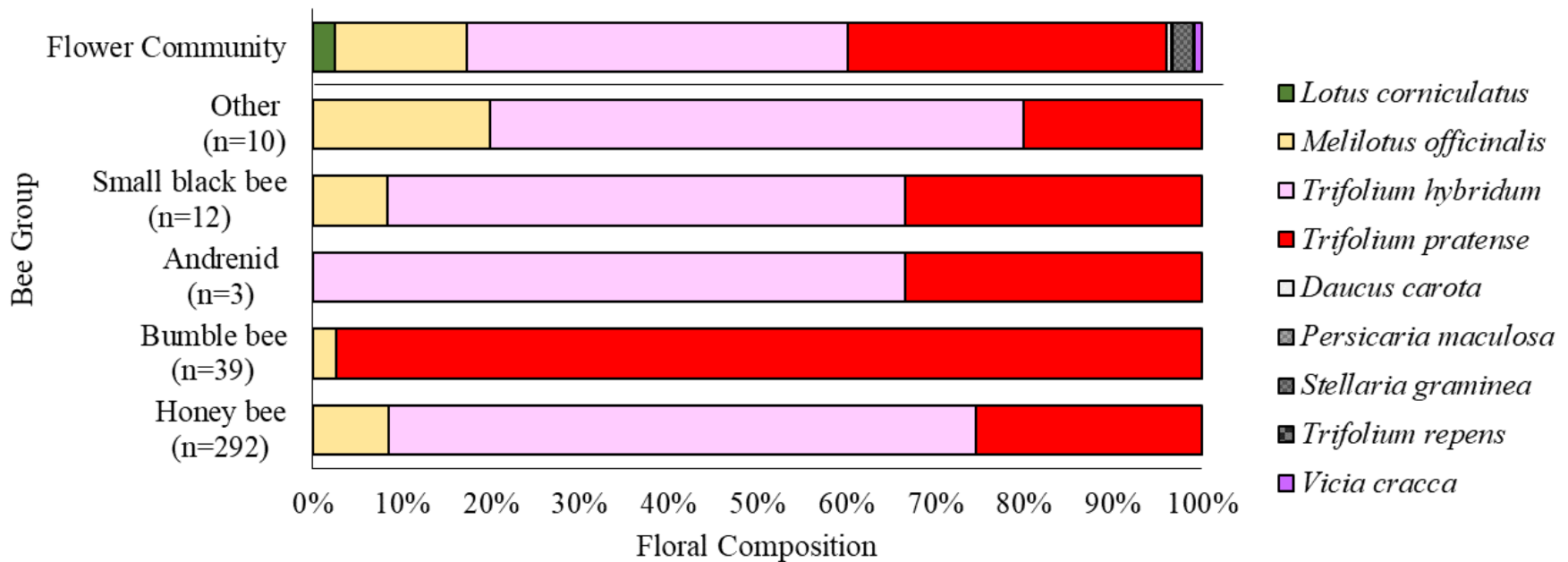
Year 3 Inflorescences m⁻²



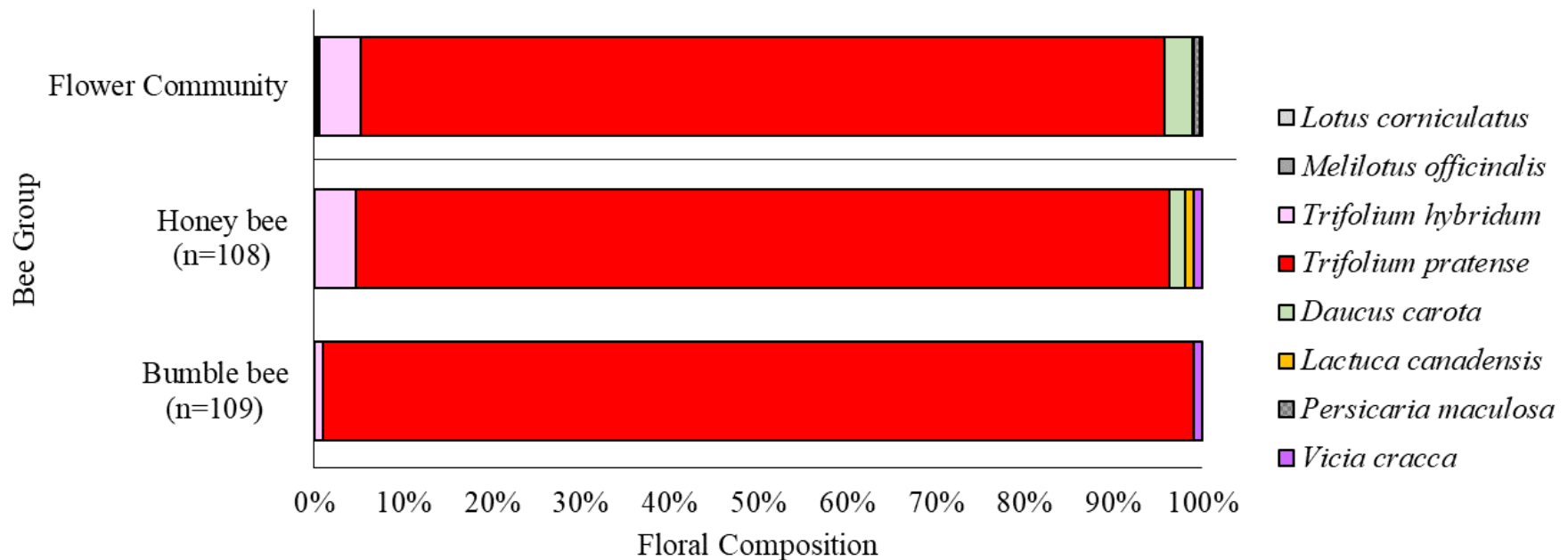
Year 1 site 16 Aug & 28 Aug



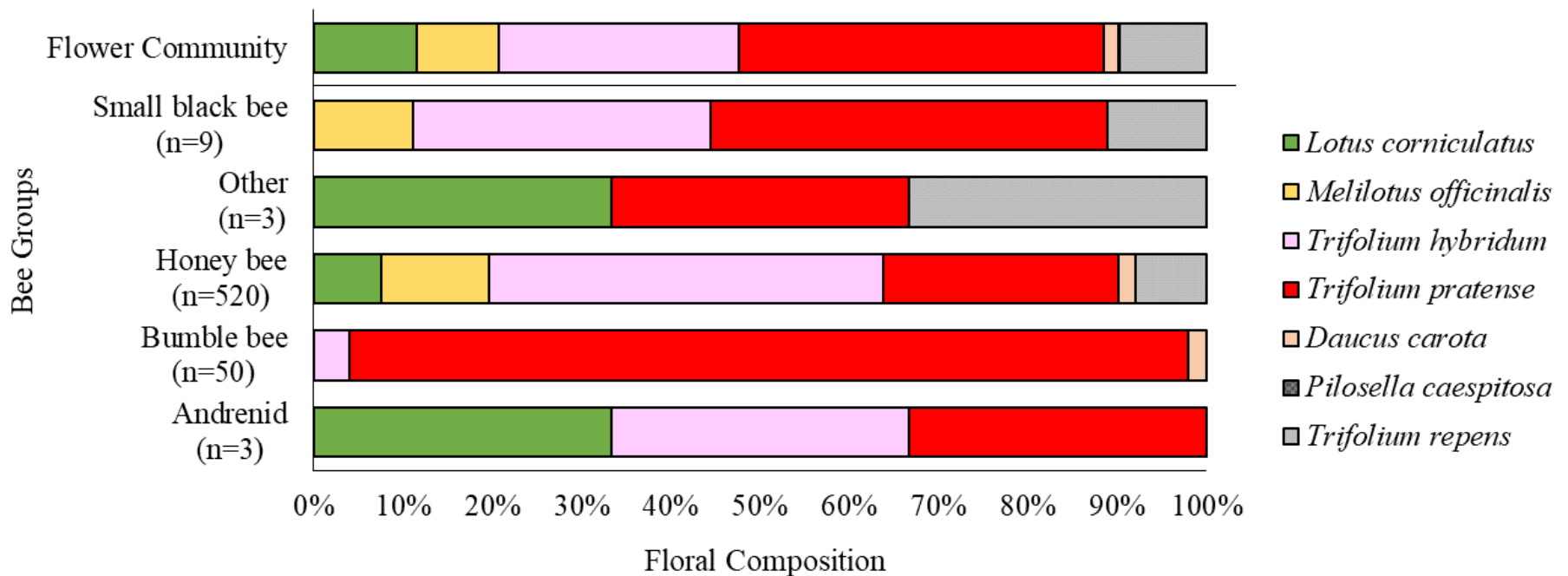
Year 2 site 04 Jul, 16 Jul & 02 Aug



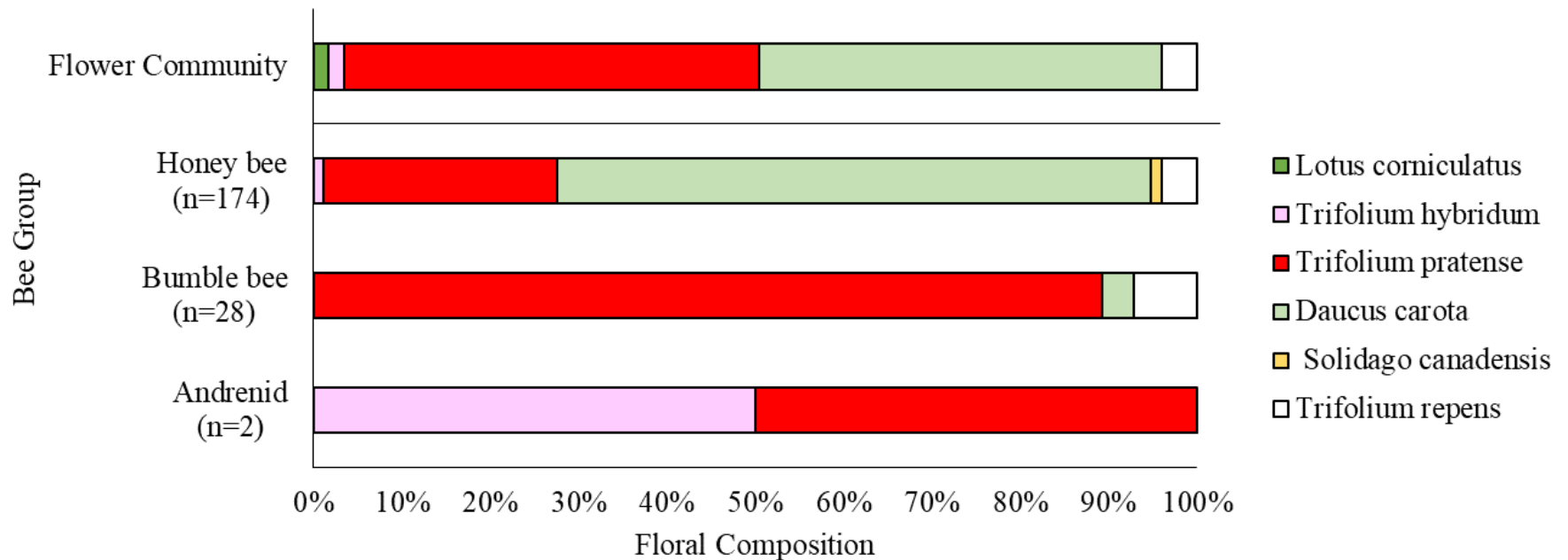
Year 2 site 16 Aug & 28 Aug



Year 3 site 04 Jul, 16 Jul & 02 Aug



Year 3 site 16 Aug & 28 Aug





16 Jul Year 1 site



16 Jul Year 1 site



04 Jul Year 2 site



04 Jul Year 2 site



04 Jul Year 2 site



04 Jul Year 2 site



16 Jul Year 2 site



16 Jul Year 3 site



16 Jul Year 3 site



16 Jul Year 3 site



16 Jul Mustard at adjacent field at Year 3 site



16 Jul Year 3 site



16 Jul Year 3 site



16 Jul Year 3 site



02 Aug Year 1 site



02 Aug Year 1 site



02 Aug Year 1 site



02 Aug Year 2 site mowed along borders



02 Aug Year 2 site



02 Aug Year 3 site



02 Aug Year 3 site



02 Aug Year 3 site



16 Aug Year 1 site



16 Aug Year 1 site



16 Aug Year 2 site



16 Aug Year 2 site regrowth



16 Aug Year 3 site



28 Aug Year 2 site regrowth



28 Aug Year 2 site unmown