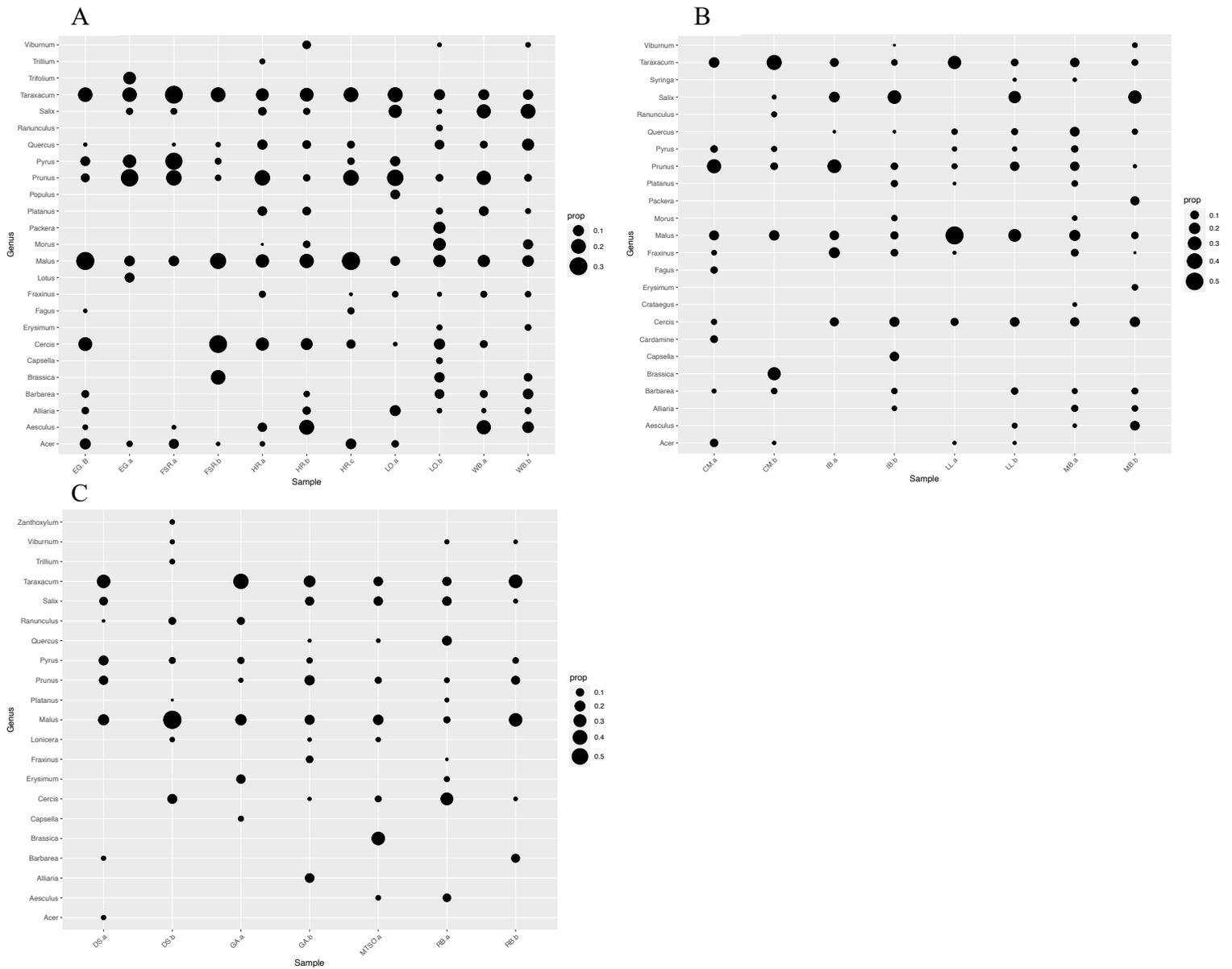
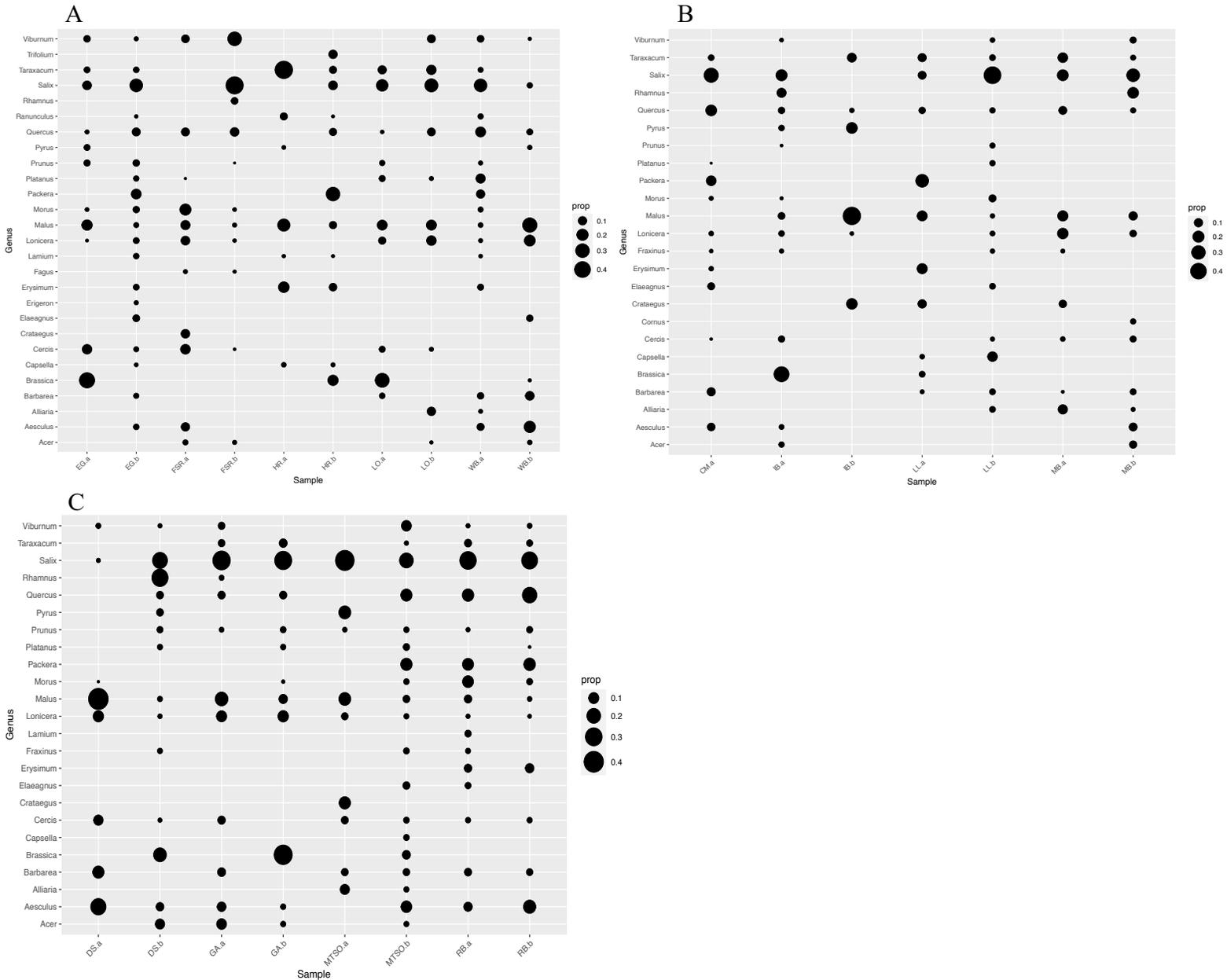


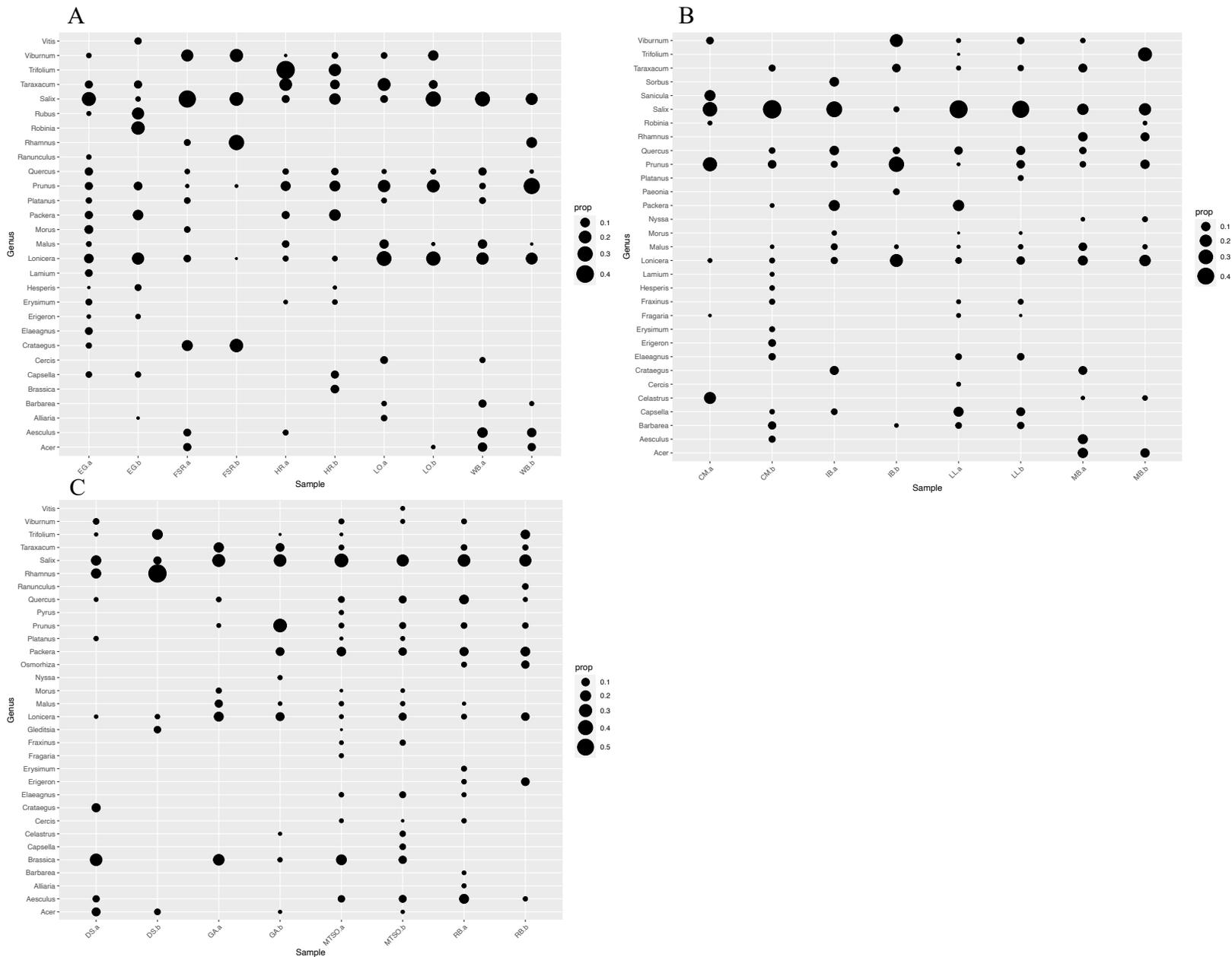
Supplementary Material



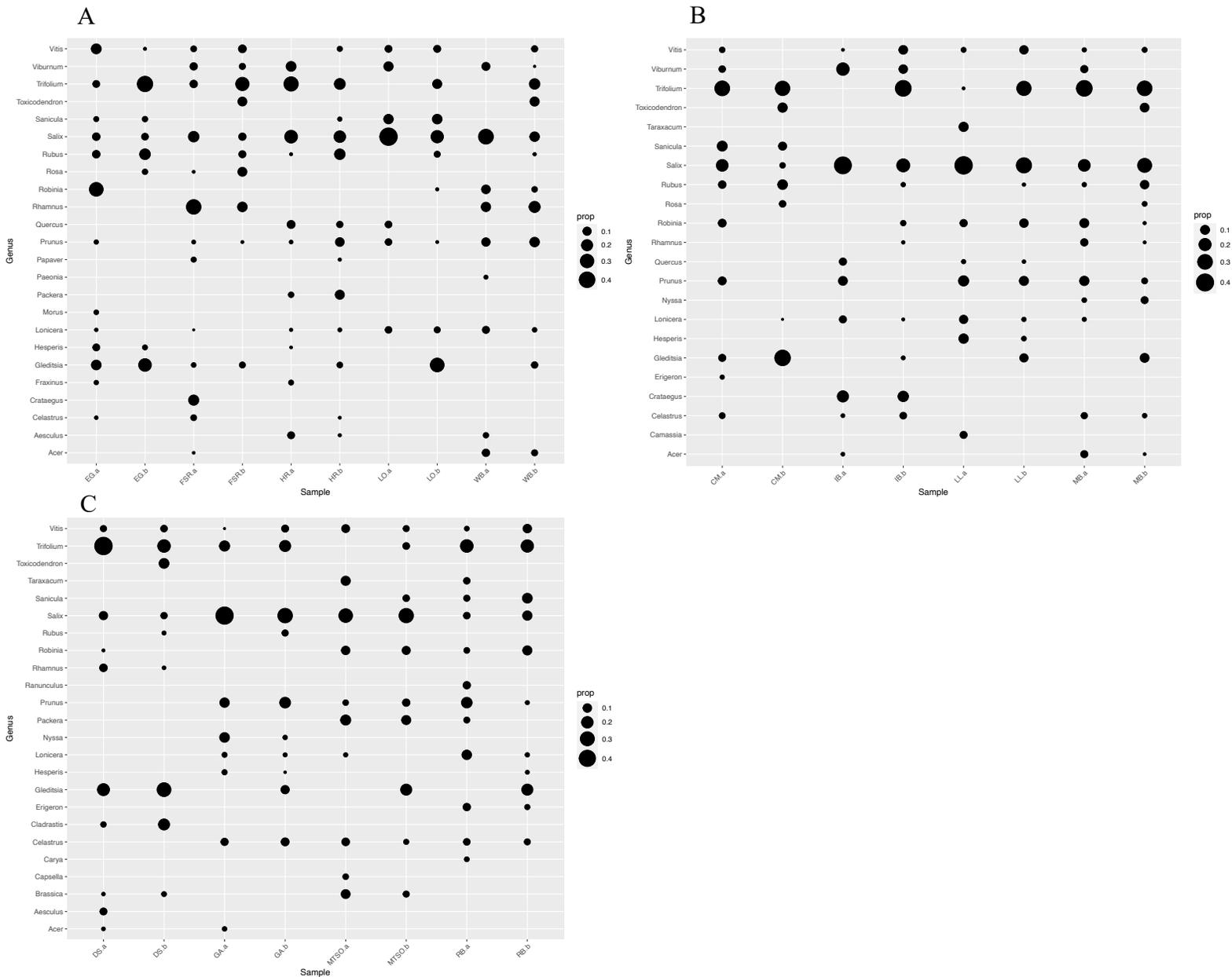
Supplementary Figure 1. Pollen metabarcoding analysis of corbicular pollen samples collected from April 23 – 29. (A) Pollen samples collected from apiaries with high (>60%) surrounding agriculture (WB, HR, FSR, LO, EG). Prominent (>10% proportional abundance) taxa include *Malus* (apple), *Prunus*, (cherry), and *Taraxacum* (dandelion). (B) Pollen samples collected from apiaries with medium (30 – 60%) surrounding agriculture (IB, CM, MB, LL). Prominent taxa include *Malus* (apple), *Prunus*, (cherry), *Salix* (willow), and *Taraxacum* (dandelion). (C) Pollen samples collected from apiaries with low (<30%) surrounding agriculture (MTSO, GA, DS, RB). Prominent taxa include *Malus* (apple), and *Taraxacum* (dandelion).



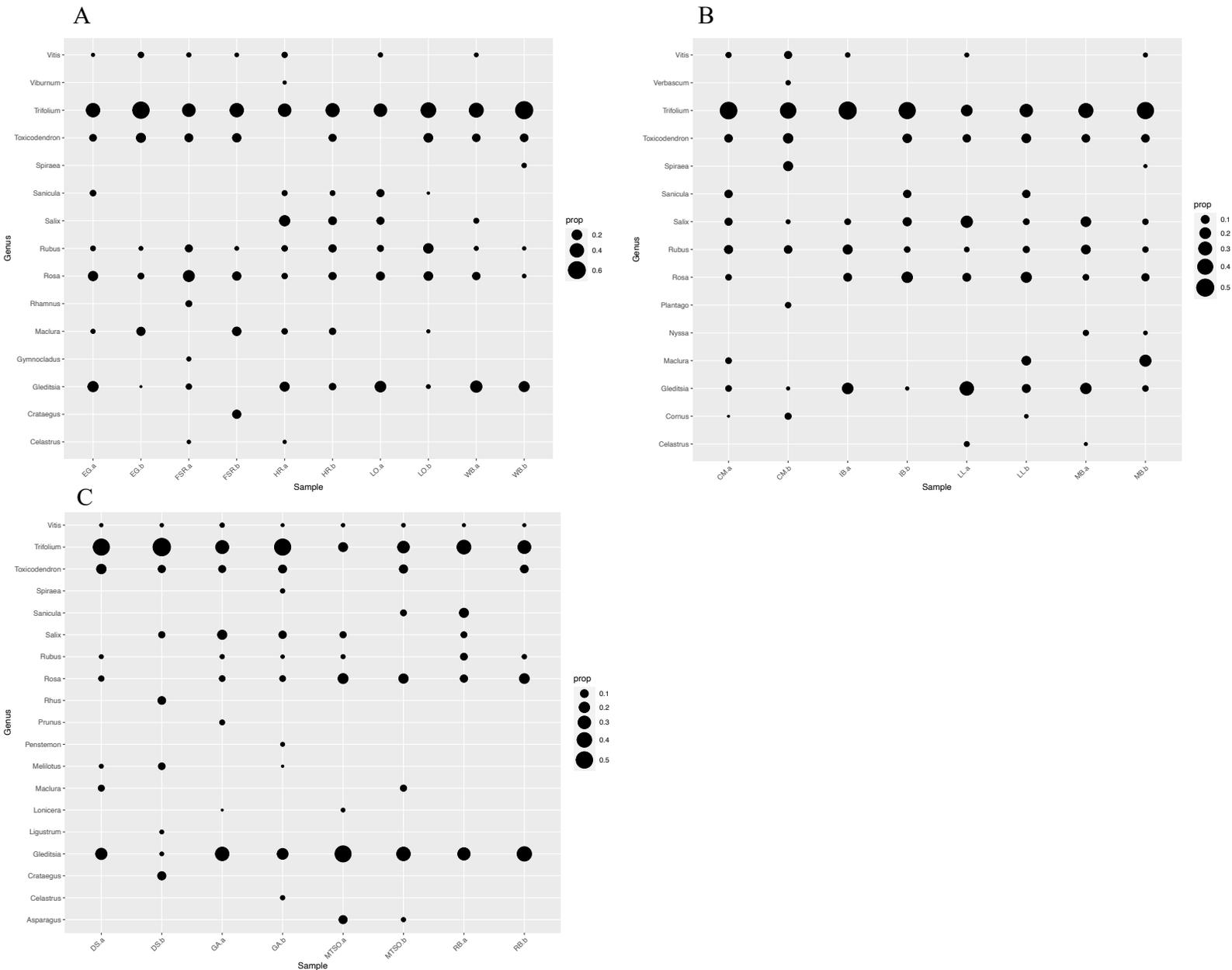
Supplementary Figure 2. Pollen metabarcoding analysis of corbicular pollen samples collected from May 1 – 7. (A) Pollen samples collected from apiaries with high (>60%) surrounding agriculture (WB, HR, FSR, LO, EG). Prominent (>10% proportional abundance) taxa include *Malus* (apple), and *Salix* (willow). (B) Pollen samples collected from apiaries with medium (30 – 60%) surrounding agriculture (IB, CM, MB, LL). Prominent taxa include *Malus* (apple), and *Salix* (willow). (C) Pollen samples collected from apiaries with low (<30%) surrounding agriculture (MTSO, GA, DS, RB). Prominent taxa include *Malus* (apple), and *Salix* (willow).



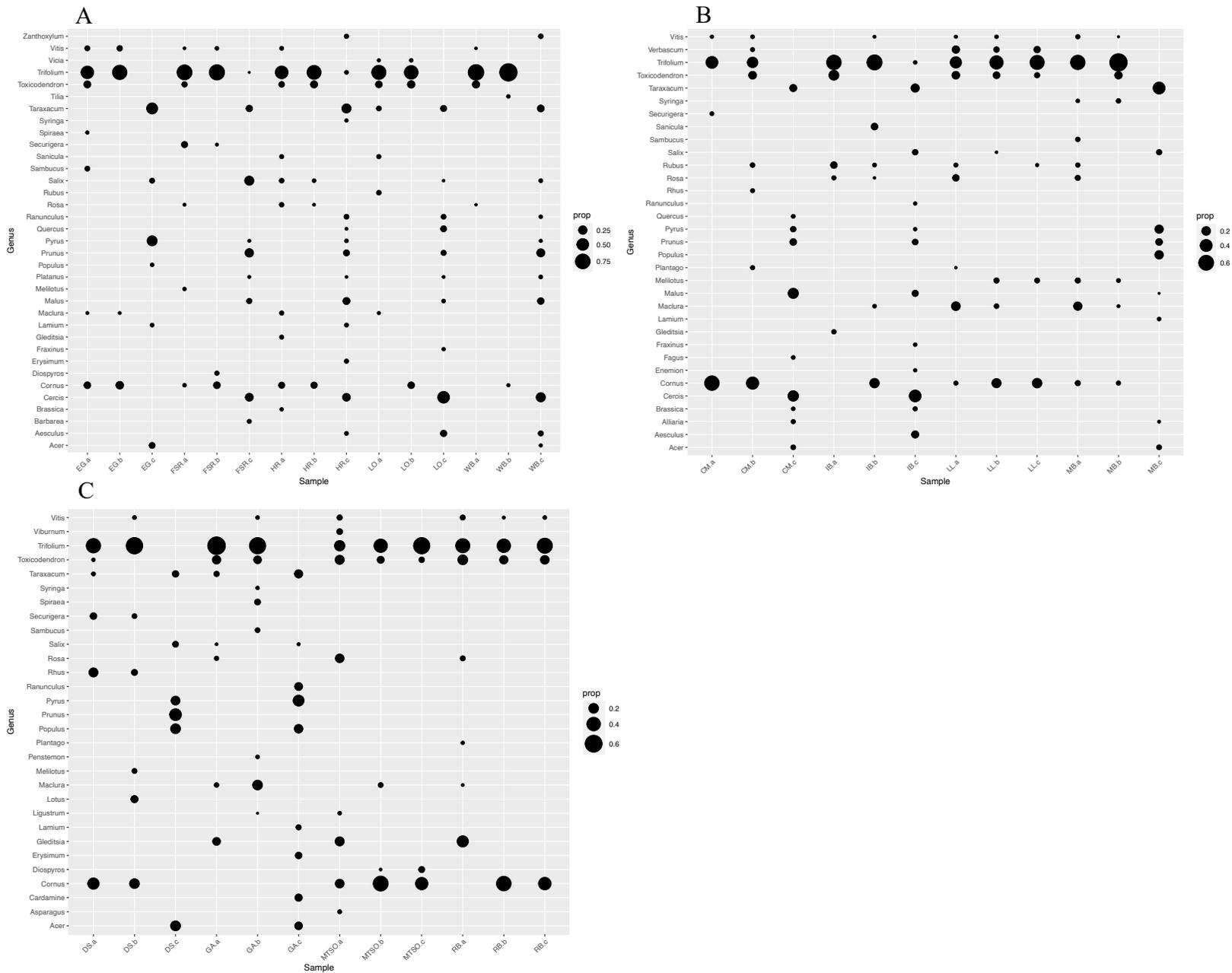
Supplementary Figure 3. Pollen metabarcoding analysis of corbicular pollen samples collected from May 8 – 14. (A) Pollen samples collected from apiaries with high (>60%) surrounding agriculture (WB, HR, FSR, LO, EG). Prominent (>10% proportional abundance) taxa include *Lonicera* (honeysuckle), *Prunus* (cherry), and *Salix* (willow). (B) Pollen samples collected from apiaries with medium (30 – 60%) surrounding agriculture (IB, CM, MB, LL). Prominent taxa include *Prunus* (cherry), and *Salix* (willow). (C) Pollen samples collected from apiaries with low (<30%) surrounding agriculture (MTSO, GA, DS, RB). Prominent taxa include *Salix* (willow).



Supplementary Figure 4. Pollen metabarcoding analysis of corbicular pollen samples collected from May 15 – 21. (A) Pollen samples collected from apiaries with high (>60%) surrounding agriculture (WB, HR, FSR, LO, EG). Prominent (>10% proportional abundance) taxa include *Salix* (willow), and *Trifolium* (clover). (B) Pollen samples collected from apiaries with medium (30 – 60%) surrounding agriculture (IB, CM, MB, LL). Prominent taxa include *Salix* (willow), and *Trifolium* (clover). (C) Pollen samples collected from apiaries with low (<30%) surrounding agriculture (MTSO, GA, DS, RB). Prominent taxa include *Gleditsia* (honey locust), *Salix* (willow), and *Trifolium* (clover).



Supplementary Figure 5. Pollen metabarcoding analysis of corbicular pollen samples collected from May 22 – 28. (A) Pollen samples collected from apiaries with high (>60%) surrounding agriculture (WB, HR, FSR, LO, EG). Prominent (>10% proportional abundance) taxa include *Gleditsia* (honey locust), *Rosa* (rose), *Toxicodendron* (poison ivy), and *Trifolium* (clover). (B) Pollen samples collected from apiaries with medium (30 – 60%) surrounding agriculture (IB, CM, MB, LL). Prominent taxa include *Gleditsia* (honey locust), and *Trifolium* (clover). (C) Pollen samples collected from apiaries with low (<30%) surrounding agriculture (MTSO, GA, DS, RB). Prominent taxa include *Gleditsia* (honey locust), and *Trifolium* (clover).



Supplementary Figure 6. Pollen metabarcoding analysis of corbicular pollen samples collected from May 29 – June 7. (A) Pollen samples collected from apiaries with high (>60%) surrounding agriculture (WB, HR, FSR, LO, EG). Prominent (>10% proportional abundance) taxa include *Trifolium* (clover). (B) Pollen samples collected from apiaries with medium (30 – 60%) surrounding agriculture (IB, CM, MB, LL). Prominent taxa include *Cornus* (dogwood), and *Trifolium* (clover). (C) Pollen samples collected from apiaries with low (<30%) surrounding agriculture (MTSO, GA, DS, RB). Prominent taxa include *Cornus* (dogwood), and *Trifolium* (clover).

Supplementary Table 1. Global, local, and global + local models were fit to normalized weight data collected from colonies located in apiaries with high, medium, and low levels of surrounding agriculture. Models were fit from May 1 to June 1 of 2019. Results from this analysis indicate the best fit of a global model in each level of agricultural intensity.

Agriculture	Model	Df	AIC
High	G	5.025624	713.1101
High	I	141.936273	-117.6929
High	GI	88.95256	161.4708
Medium	G	6.768174	405.9067
Medium	I	81.294607	-75.6317
Medium	GI	55.830466	21.6263
Low	G	8.807143	395.839978
Low	I	96.137263	-90.451974
Low	GI	79.539835	4.234663