



**S1 Fig. The pangenome at the intra-species and intra-genus levels. (A)** Venn diagram showing the numbers of unique orthologous genes in CCBAU45436 and CCBAU25509, respectively, and the number of core orthologous genes found in both strains. **(B)** Flower plot showing the numbers of strain-specific unique orthologous genes, and the number of *S. fredii* core orthologous genes. **(C)** Flower plot showing the numbers of strain-specific unique orthologous genes, and the number of *Sinorhizobium* core orthologous genes. The RefSeq genome assembly accession: GCF\_000283895.1 (HH103), GCF\_000018545.1 (NGR234), GCF\_000265205.3 (USDA257), GCF\_000006965.1 (Rm1021), GCF\_000147795.2 (AK83), GCF\_000147775.2 (BL225C), GCF\_000320385.2 (GR4), GCF\_000304415.1 (Rm41), GCF\_000218265.1 (SM11), GCF\_000017145.1 (WSM419).