Supplementary Table 2. Summary of ornamental plant population re-sequencing studies.

NO.	Species	Binomial name	Population types	Population size	Main contents	Target Traits	Publication year	Pulication
1	Sunflower	*Helianthus annuus*	Populations from 3 wild species	1506	Haplotype identificaiton, GWA and GEA analyses, Fst	Flowering-time, Seed-size	2020	Nature
2	Lupin	*Lupinus albus*	Cultivars and undomesticated wild types	38	Genome assembly of cultivar Tanjil, selective sweep analysis	Low seed alkaloid levels	2020	The Plant Journal
3	Ornamental kale	*Brassica oleracea* var. *acephala*	F1DH population	150	Genetic linkage map construction and QTL analysis	Leaf shape	2023	Genes
4	Ornamental kale	*Brassica oleracea* var. *acephala*	F2 and BC1 populations	120 and 850, respectively	Fine-mapping and QTL analysis	Leaf shape	2021	BMC Plant Biology
5	Rhododendron	*Rhododendron henanense*	Four wild populations	50	Population genetics and demographic history analyses	-	2023	Crop Breeding And Applied Biotechnology
6	Rose	*Rosa*	Wild species, and old and modern cultivars	233	Genome assembly of tetraploid *R. hybrida* 'Samantha,' population genetics, selective sweep analysis	Continuous flowering, floral organ identity, flower senescence, and disease resistance	2023	Preprint
7		*Rosa*	Botanical roses and varieties	236	Nucleotide diversity, Tajima's D, RoD, GWAS analysis	Blackspot resistance	2023	Preprint
8		*Rosa rugosa*	Wild and cultivated *R. rugosa* populations	191	Population genetics and Population dynamics analysis	Flower development	2023	BMC Plant Biology
9		*Rosa*	57 rose cultivars and one wild species	58	Selective sweep analysis	Flower scent	2023	Diversity
10		*Rosa*	F1 population	187	Genetic linkage map construction and QTL analysis	Flower color	2021	Frontiers in Plant Science
11	Crape myrtle	*Lagerstroemia indica*	63 cultivars, and 9 closely related species of *L. indica*	73	Genome assembly of *L. indica*, population genetics, genetic linkage map construction and QTL analysis, BSA analysis	Plant architecture traits	2023	Horticulture Research
12	Sweet osmanthus	Osmanthus fragrans	119 representative *O. fragrans* landraces and three close relatives of osmanthus	122	Population genetics and GWAS analysis	Floral color traits	2021	Horticulture Research
13	Mei	*Prunus mume*	333 representative mei landraces, 15 wild *P. mume*, and three close relatives of *Prunus*,	351	Pan-genome construction, population genetics and GWAS analysis	petal color, stigma color, calyx color, and bud color	2018	Nature Communications
14	Canna	*Cana edulis* and *Canna indica*	105 landraces and 136 improved cultivars	241	Genome assembly of C. edulis and C. indica, population genetics, GWAS analysis	Leaf development	2022	Frontiers in Plant Science
15	Lotus	*Nelumbo nucifera*	Three cultivated lotus, one wild lotus, one Thai lotus and an outgroup	19	Genetic diversity and relationships	-	2017	Journal of Integrative Plant Biology
16	Primula	*Primula veris*	98 ingroup and eight outgroup samples	106	Phylogenetic analysis	-	2022	New Phytologist
17	Flowering cherry	*Prunus campanulata*	Wild species, cultivars and breeding lines	312	Genome assembly of *Prunus campanulata* 'Plena,' population genetics, GWAS analysis	Flower color	2023	The Plant Journal
18	Peach	*Prunus persica*	Ten wild and 74 cultivated peach varieties	84	Population genetics, phylogenetic analysis, Tajima's D, ROD and Fst	Domestication traits	2014	Genome Biology
19			Twelve wild accessions, 62 landraces and 55 ancient and modern improved varieties	129	Population genetics, GWAS	Twelve agronomic traits: fruit shape, non-acidity fruit trait, fruit hairiness, fruit flesh colour, anthocyanin pigments, kernel taste, single flowers, etc.	2016	Nature Communications
20			Cultivated peach and closely related relatives	58	Phylogenetic analysis, demographic history, selective sweep analysis	Fruit texture, taste, size, and skin color	2018	Nature Communications
21			52 wild relatives, 213 landrace accessions, 215 improvement accessions	480	Population genetics, selective sweep analysis	Fruit size，fruit taste	2019	Genome Biology
22			Wild related species, wild peach and ornamental peach	418	Selective sweep analysis, GWAS	Fruit weight，Sorbitol content，Polyphenols	2019	Plant Biotechnology Journal
23			549 cultivated accessions and 15 close wild relatives	564	Genome assembly of LHSM，population genomic analyses, GWAS	Fruit acidity	2021	Nature Communications