Supplemental Table S2. List of the other public accessible ornamental plant genomes and their database construction status.

Scientific name	cultivars	Sequencing method	Common name	Taxonomy	Type	DB-url	Year	Size(Mb)	Journal	Reference
Aegiceras corniculatum		Illumina+PacBio	Black mangrove	Primulaceae/Aegiceras	Flowering shrubs	db.cngb.org	2020	603.93	Molecular Ecology Resources	Chromosome-level assembly of the mangrove plant *Aegiceras corniculatum* genome generated through Illumina, PacBio and Hi-C sequencing technologies
Amaranthus hypochondriacus	Plainsman (PI 558499)	Illumina	Amaranth	Amaranthaceae/Amaranthus	Annual herbaceous flowers	ncbi.nlm.nih.gov;resource.ibab.ac.in	2014	322.6	DNA Research	The Draft Genome and Transcriptome of *Amaranthus hypochondriacus*: A C4 Dicot Producing High-Lysine Edible Pseudo-Cereal
	Rajgira	Illumina	Amaranth	Amaranthaceae/Amaranthus	Annual herbaceous flowers	ncbi.nlm.nih.gov; phytozome.jgi.doe.gov; genomevolution.org/CoGe	2016	377	Plant Genome	The Amaranth Genome: Genome, Transcriptome, and Physical Map Assembly
Ammopiptanthus nanus		Illumina+PacBio	Piptant Karlikovyi	Fabaceae/Ammopiptanthus	Flowering shrubs	ncbi.nlm.nih.gov; gigadb.org	2018	823.74	GigaScience	Long-read sequencing and de novo genome assembly of *Ammopiptanthus nanus*, a desert shrub
Ananas bracteatus	*Ananas comosus* var. *bracteatus*	Illumina+PacBio	Pineapple	Bromeliaceae/Ananas	Perennial herbaceous flowers	ncbi.nlm.nih.gov;	2019	513	Nature Genetics	The *bracteatus* pineapple genome and domestication of clonally propagated crops
Ananas comosus	pineapple varieties F153 and MD2 and a wild pineapple relative, *Ananas bracteatus* accession CB5	Illumina+Roche/454+PacBio	Pineapple	Bromeliaceae/Ananas	Perennial herbaceous flowers	ncbi.nlm.nih.gov; ddbj.nig.ac.jp; genomevolution.org/CoGe; phytozome.jgi.doe.gov;	2015	382	Nature Genetics	The pineapple genome and the evolution of CAM photosynthesis
	MD-2	Illumina+PacBio	Pineapple	Bromeliaceae/Ananas	Perennial herbaceous flowers	ncbi.nlm.nih.gov; ddbj.nig.ac.jp; ena.fr	2016	508	DNA Research	The draft genome of MD-2 pineapple using hybrid error correction of long reads
Antirrhinum majus	*A. majus* cv.JI7	Illumina+PacBio	Snapdragon	Plantaginaceae/Antirrhinum	Annual herbaceous flowers	ncbi.nlm.nih.gov; bigd.big.ac.cn/gsa; bioinfo.sibs.ac.cn/Am/	2019	510.2	Nature Plants	Genome structure and evolution of *Antirrhinum majus* L
Apostasia shenzhenica		Illumina+PacBio		Orchidaceae/Apostasia	Perennial herbaceous flowers	ncbi.nlm.nih.gov; orchidbase.itps.ncku.edu.tw/est/home2012.aspx	2017	349	Nature	The *Apostasia* genome and the evolution of orchids
Begonia fuchsioides		Illumina	Fuchsia Begonia, Shrub Begonia	Begoniaceae/Begonia	Flowering shrubs	ncbi.nlm.nih.gov; gigadb.org	2018	374	Science	Phylogenomics reveals multiple losses of nitrogen-fixing root nodule symbiosis
Bombax ceiba		Illumina+PacBio	Red silk cotton tree	Malvaceae/Bombax	Flowering trees	ncbi.nlm.nih.gov; gigadb.org	2018	895	GigaScience	De novo genome assembly of the red silk cotton tree (*Bombax ceiba*)
Callicarpa americana		Illumina+PacBio	Beautyberry	Lamiaceae/Callicarpa	Flowering trees/Flowering shrubs	ncbi.nlm.nih.gov; gigadb.org; ebi.ac.uk/metabolights; zenodo.org	2020	506.1	GigaScience	Generation of a chromosome-scale genome assembly of the insect-repellent terpenoid-producing Lamiaceae species, *Callicarpa americana*
Carthamus tinctorius	Anhui-1	PacBio	Safflower	Asteraceae/Carthamus	Annual herbaceous flowers	safflower.scuec.edu.cn	2021	1070	Plant Biotechnology Journal	The chromosome-scale reference genome of safflower (*Carthamus tinctorius*) provides insights into linoleic acid and flavonoid biosynthesis
Catharanthus roseus	SunStorm™Apricot	Illumina	periwinkle, Madagascar periwinkle, annual vinca	Apocynaceae/Catharanthus	Perennial herbaceous flowers	ncbi.nlm.nih.gov; genomevolution.org/CoGe; medic-inalplantgenomics.msu.edu	2015	523	The Plant Journal	Genome-guided investigation of plant natural product biosynthesis
Cerasus		Illumina+Nanopore	Chinese	Rosaceae/Cerasus	Flowering trees	ncbi.nlm.nih.gov;	2020	265.4	Horticulture	The genome of Chinese flowering cherry (*Cerasus*

serrulata			flowering cherry						Research	*serrulata*) provides new insights into Cerasus species
Cercis canadensis		Illumina	Eastern redbud	Fabaceae/Cercis	Flowering trees	ncbi.nlm.nih.gov; gigadb.org; *genomevolution.orgauth.iplantc.org*	2018	330	Science	Phylogenomics reveals multiple losses of nitrogen-fixing root nodule symbiosis
Chimonanthus praecox		Illumina+PacBio	Wintersweet	Calycanthaceae/Chimonanthus	Flowering trees	ncbi.nlm.nih.gov;	2020	695.36	Genome Biology	The chromosome-level wintersweet (*Chimonanthus praecox*) genome provides insights into floral scent biosynthesis and flowering in winter
Chimonanthus salicifolius	wild population	Illumina+PacBio		Calycanthaceae/Chimonanthus	Flowering trees	ncbi.nlm.nih.gov; xhhuanglab.cn	2020	820.1	The Plant Journal	The *Chimonanthus salicifolius* genome provides insight into magnoliid evolution and flavonoid biosynthesis
Chrysanthemum seticuspe	AEV2, NIFS-0 and NIFS-3	Illumina	Wild chrysanthemum	Asteraceae /Chrysanthemum	Perennial herbaceous flowers	ncbi.nlm.nih.gov; mum-garden.kazusa.or.jp/	2018	2,721.84	DNA Research	De novo whole-genome assembly in *Chrysanthemum seticuspe*, a model species of Chrysanthemums, and its application to genetic and gene discovery analysis
Cydonia oblonga	Quince A	Illumina	Common quince	Rosaceae/Cydonia	Flowering trees	ncbi.nlm.nih.gov; ddbj.nig.ac.jp; ena.fr	2021	488.4	Scientific Reports	De novo assembly and characterization of the frst draft genome of quince (*Cydonia oblonga* Mill.)
Datura stramonium		Illumina+PacBio	Jamestown weed	Solanaceae/Datura	Annual herbaceous flowers	ncbi.nlm.nih.gov; ddbj.nig.ac.jp; ena.fr	2021	1,482 and 1,288	Scientific Reports	Genomic signatures of the evolution of defence against its natural enemies in the poisonous and medicinal plant *Datura stramonium*(Solanaceae)
Dianthus caryophyllus	Francesco	Illumina+GS FLX	Carnation	Caryophyllaceae/Dianthus	Perennial herbaceous flowers	ncbi.nlm.nih.gov; Ornamental carnation.kazusa.or.jp; http://carnation.kazusa.or.jp/	2013	568.9	DNA Research	Sequence Analysis of the Genome of Carnation (*Dianthus caryophyllus* L.)
Dryas drummondii		Illumina	Drummond's Mountain-avens, Yellow Mountain-avens, Yellow Dryas	Rosaceae/Dryas	Perennial herbaceous flowers	ncbi.nlm.nih.gov; gigadb.org	2018	233	Science	Phylogenomics reveals multiple losses of nitrogen-fixing root nodule symbiosis
Eschscholzia californica	Hitoezaki, Takii Seed Co., Ltd.	Illumina	California poppy	Papaveraceae/Eschscholzia	Perennial herbaceous flowers	ncbi.nlm.nih.gov; Ornamental eschscholzia.kazusa.or.jp; ddbj.nig.ac.jp; plants.ensembl.org	2018	489	Plant and Cell Physiology	Mining of the Uncharacterized Cytochrome P450 Genes Involved in Alkaloid Biosynthesis in California Poppy Using a Draft Genome Sequence
Gardenia jasminoides		Illumina+Nanopore	Cape jasmine	Rubiaceae/Gardenia	Flowering shrubs	ncbi.nlm.nih.gov;	2020	635.6	BMC Biology	Tandem gene duplications drive divergent evolution of caffeine and crocin biosynthetic pathways in plants
Handroanthus impetiginosus		Illumina	Pink trumpet tree	Bignoniaceae/Handroanthus	Flowering trees	ncbi.nlm.nih.gov; hardwoodgenomics.org; gigadb.org	2018	503.7	GigaScience	Genome assembly of the Pink Ipˆ e (*Handroanthus impetiginosus*, *Bignoniaceae*), a highly valued, ecologically keystone Neotropical timber forest tree
Hibiscus syriacus		Illumina	Korean rose, rose of Sharon, Syrian ketmia, shrub althea, rose mallow	Malvaceae/Hibiscus	Flowering shrubs	ncbi.nlm.nih.gov; kobic.re.kr/hibiscus.en	2017	1748	DNA Research	Genome analysis of *Hibiscus syriacus* provides insights of polyploidization and indeterminate flowering in woody plants
Hydrangea macrophylla	Sumidanohanabi	Illumina+PacBio	Big leaf hydrangea	Hydrangeaceae/Hydrangea	Flowering shrubs	plantgarden.jp/ja; ddbj.nig.ac.jp	2020	1,714	DNA Research	Genome sequence of *Hydrangea macrophylla* and its application in analysis of the double flower phenotype
Hypericum perforatum		Illumina+PacBio	Goatweed or Klamath weed	Hypericaceae/Hypericum	Perennial herbaceous flowers	ncbi.nlm.nih.gov;	2020	373.7	Journal of Pineal Research.	Whole-genome sequence data of *Hypericum perforatum* and functional characterization of melatonin biosynthesis by N-acetylserotonin O-methyltransferase
Jacaranda mimosifolia		Illumina+PacBio	Blue jacaranda, black poui, or fern tree.	Bignoniaceae/Jacaranda	Flowering trees	ncbi.nlm.nih.gov;	2021	707.32	Genome Biology and Evolution	Chromosomal-Level Reference Genome of the Neotropical Tree *Jacaranda mimosifolia* D. Don
Kalanchoe fedtschenkoi	M2	Illumina	Lavender scallops	Crassulaceae/Kalanchoe	Perennial herbaceous flowers	ncbi.nlm.nih.gov; phytozome.jgi.doe.gov; ebi.ac.uk/metabolights	2017	260	Nature communication	The *Kalanchoë* genome provides insights into convergent evolution and building blocks of crassulacean acid metabolism

Leptospermum scoparium	Crimson Glory	Illumina	broom teatree	Myrtaceae/ Leptospermum	Flowering shrubs	ncbi.nlm.nih.gov;	2019	297	New Zealand Journal of Crop and Horticultural Science	A whole genome assembly of *Leptospermum scoparium* (Myrtaceae) for mānuka research
Liriodendron chinense		Illumina+PacBio	Chinese tulip tree	Magnoliaceae/Liriodendron	Flowering trees	ena.fr	2019	1,742	Nature Plants	*Liriodendron genome* sheds light on angiosperm phylogeny and species–pair differentiation
Lobularia maritima		Illumina	Sweet alyssum	Brassicaceae/Lobularia	Perennial herbaceous flowers	ncbi.nlm.nih.gov;	2020	197.7	Horticulture Research	A chromosome-scale reference genome of *Lobularia maritima*, an ornamental plant with high stress tolerance
Lupinus albus	*Lupinus albus* cv. AMIGA	Illumina+PacBio	White lupin	Fabaceae/Lupinus	Annual herbaceous flowers	ncbi.nlm.nih.gov; legumeinfo.org/species; ena.fr; ddbj.nig.ac.jp; whitelupin.fr	2020	451	Nature communication	High-quality genome sequence of white lupin provides insight into soil exploration and seed quality
	Lupinus albus cv. AMIGA	Illumina+PacBio	White lupin	Fabaceae/Lupinus	Annual herbaceous flowers	ncbi.nlm.nih.gov; legumeinfo.org/species; ena.fr; ddbj.nig.ac.jp; whitelupin.fr	2020	474.2	Nature communication	The genome evolution and low-phosphorus adaptation in white lupin
Lupinus angustifolius	Tanjil	Illumina	Narrow-leaved blue lupine	Fabaceae/Lupinus	Annual herbaceous flowers	ncbi.nlm.nih.gov	2013	598	PLOS ONE	Draft Genome Sequence, and a Sequence-Defined Genetic Linkage Map of the Legume Crop Species *Lupinus angustifolius* L.
	Tanjil	Illumina	Narrow-leaved blue lupine	Fabaceae/Lupinus	Annual herbaceous flowers	ncbi.nlm.nih.gov; plants.ensembl.org; legumeinfo.org/species; lupinexpress.org/	2016	609	Plant Biotechnology Journal	A comprehensive draft genome sequence for lupin (*Lupinus angustifolius*), an emerging health food: insights into plant–microbe interactions and legume evolution
Magnolia biondii		PacBio		Magnoliaceae/Magnolia	Flowering trees	db.cngb.org	2021	2,236	Horticulture Research	The genome of *Magnolia biondii* Pamp. Provides insights into the evolution of Magnoliales and biosynthesis of terpenoids
Malus baccata		Illumina	Wild Apple	Rosaceae/Malus	Flowering trees	db.cngb.org	2019	665.8	G3-Genes Genomes Genetics	Sequencing of a Wild Apple (*Malus baccata*) Genome Unravels the Differences Between Cultivated and Wild Apple Species Regarding Disease Resistance and Cold Tolerance
Mimosa pudica		Illumina	Sensitive plant, Sleepy plant, Action plant, Touch-me-not, Shameplant	Fabaceae/Mimosa	Flowering shrubs	ncbi.nlm.nih.gov; *medicagogenome.org*; gigadb.org	2018	557	Science	Phylogenomics reveals multiple losses of nitrogen-fixing root nodule symbiosis
Papaver somniferum		Illumina+Nanopore	Opium poppy	Papaveraceae/Papaver	Annual herbaceous flowers	ncbi.nlm.nih.gov; *genomevolution.orgauth.iplantc.org*	2018	2720	Plant Science	The opium poppy genome and morphinan production
Petunia hybrida	wild population	Illumina+PacBio	Garden Petunia	Solanaceae/Petunia	Annual herbaceous flowers	ncbi.nlm.nih.gov; solgenomics.net/organism/Petunia_axillaris/genome; solgenomics.net/organism/Petunia_inflata/genome,	2016	1400	Nature plant	Insight into the evolution of the Solanaceae from the parental genomes of *Petunia hybrida*
Primula veris		Illumina+PacBio	Cowslip	Primulaceae/Primula	Perennial herbaceous flowers	ncbi.nlm.nih.gov; *plantgenie.org*	2015	301.8	Genome Biology	The draft genome of *Primula veris* yields insights into the molecular basis of heterostyly
Primula vulgaris	Somerset Wyke Champflower population	Illumina	Common primrose	Primulaceae/Primula	Perennial herbaceous flowers	ncbi.nlm.nih.gov; *phytozome.jgi.doe.gov*	2018	411.2	Scientific Reports	*Primula vulgaris* (primrose) genome assembly, annotation and gene expression, with comparative genomics on the heterostyly supergene
Prunus persica	peach cv. Lovell	Sanger	Peach	Rosaceae/Prunus	Flowering trees	ncbi.nlm.nih.gov; genomevolution.org/CoGe; *bioinformatics.psb.ugent.be/plaza*;	2013	224.6	Nature Genetics	The high-quality draft genome of peach (*Prunus persica*) identifies unique patterns of genetic diversity,

						chibba.agtec.uga.edu/duplication; plants.ensembl.org; phytozome.jgi.doe.gov; rosaceae.org; hardwoodgenomics.org;				domestication and genome evolution
	Somei-Yoshino	Illumina+PacBio	Yoshino Cherry	Rosaceae/Prunus	Flowering trees	ncbi.nlm.nih.gov; rosaceae.org; cherry.kazusa.or.jp	2019	690.1	DNA Research	Phased genome sequence of an interspecific hybrid flowering cherry, 'Somei-Yoshino' (*Cerasus* × *yedoensis*)
Punica granatum	Dabenzi	Illumina	Pomegranate	Lythraceae/Punica	Flowering trees	ncbi.nlm.nih.gov; ddbj.nig.ac.jp; ena.fr	2017	328.38	The Plant Journal	The pomegranate (*Punica granatum L.*) genome and the genomics of punicalagin biosynthesis
	Taishanhong	Illumina	Pomegranate	Lythraceae/Punica	Flowering trees	ncbi.nlm.nih.gov; hardwoodgenomics.org	2018	274	Plant Biotechnology Journal	The pomegranate (*Punica granatum L.*) genome provides insights into fruit quality and ovule developmental biology
	Tunisia	PacBio	Pomegranate	Lythraceae/Punica	Flowering trees	ncbi.nlm.nih.gov	2020	320.31	Plant Biotechnology Journal	The pomegranate (*Punica granatum L.*) draft genome dissects genetic divergence between soft- and hard-seeded cultivars
Rhodiola crenulata	wild population	Illumina		Crassulaceae/Rhodiola	Perennial herbaceous flowers	ncbi.nlm.nih.gov; gigadb.org	2017	345.1	GigaScience	Draft genome sequence of the Tibetan medicinal herb *Rhodiola crenulata*
Rhododendron delavayi	*R. delavayi* var. delavayi	Illumina		Ericaceae/Rhododendron	Flowering shrubs	ncbi.nlm.nih.gov; gigadb.org	2017	695.09	GigaScience	The draft genome assembly of Rhododendron *delavayi Franch*. var. *delavayi*
Rhododendron simsii		Illumina+PacBio	Sim's azalea	Ericaceae/Rhododendron	Flowering shrubs	ncbi.nlm.nih.gov; ddbj.nig.ac.jp; ena.fr	2020	529	Nature communication	Chromosome-level genome assembly of a parent species of widely cultivated azaleas
Rhododendron williamsianum		Illumina		Ericaceae/Rhododendron	Flowering shrubs	ncbi.nlm.nih.gov;	2019	532.5	Genome Biology and Evolution	The *Rhododendron* Genome and Chromosomal Organization Provide Insight into Shared Whole-Genome Duplications across the Heath Family (Ericaceae)
Salvia splendens	Aoyunshenghuo (Olympic flame)	Illumina+PacBio	Scarlet sage, Tropical sage	Lamiaceae/Salvia	Annual herbaceous flowers/Perennial herbaceous flowers	ncbi.nlm.nih.gov; gigadb.org	2018	808	GigaScience	High-quality assembly of the reference genome for scarlet sage, *Salvia splendens*, an economically important ornamental plant
Sedum album		Illumina+PacBio	White stonecrop	Crassulaceae/Sedum	Perennial herbaceous flowers	ncbi.nlm.nih.gov;	2019	302	PLoS Genetics	Time of day and network reprogramming during drought induced CAM photosynthesis in *Sedum album*
Tarenaya hassleriana	Purple Queen	Illumina	Spider Flower	Cleomaceae/Tarenaya	Annual herbaceous flowers	ncbi.nlm.nih.gov; genomevolution.org/CoGe; bioinformatics.psb.ugent.be/plaza; ddbj.nig.ac.jp; ena.fr	2013	249.93	The Plant Cell	The *Tarenaya hassleriana* Genome Provides Insight into Reproductive Trait and Genome Evolution of Crucifers
Thalictrum thalictroides		Illumina	rue anemone	Ranunculaceae/Thalictrum	Perennial herbaceous flowers	ncbi.nlm.nih.gov;	2020	243	Applications in Plant Sciences	Genomic and transcriptomic resources for candidate gene discovery in the Ranunculids
Trifolium pratense		Illumina	Red clover	Fabaceae/Trifolium	Perennial herbaceous flowers	ncbi.nlm.nih.gov; ddbj.nig.ac.jp; plants.ensembl.org	2014	314.6	American Journal of Botany	Genome assembly and annotation for red clover (*Trifolium pratense*; Fabaceae)
	Milvus ×Britta	Illumina	Red clover	Fabaceae/Trifolium	Perennial herbaceous flowers	zenodo.org	2015	346	Scientific Reports	Red clover (*Trifolium pratense* L.) draft genome provides a platform for trait improvement