

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Orthogroups comprising genes from *Amaranthus hypochondriacus*, *Arabidopsis thaliana*, *Daucus carota*, *Mimulus guttatus*, *Oryza sativa*, *Sorghum bicolor*, *Solanum lycopersicum*, *Vitis vinifera*, *Populus trichocarpa*, *Dioscorea rotundata* and *Ipomoea nil*.

File Name: Supplementary Data 2

Description: Expression data of HGT candidates.

File Name: Supplementary Data 3

Description: Extrinsic information configuration file for AUGUSTUS.

File Name: Supplementary Data 4

Description: List of species used for gene loss evaluation.

File Name: Supplementary Data 5

Description: HGT candidate gene trees.