

Description of Additional Supplementary Files

Supplementary Data 1

Summary statistics of pepper genome assemblies

Supplementary Data 2

Summary statistics of small indels and SVs identified in PI 632928 and Grif 1614 relative to Zhangshugang

Supplementary Data 3

Summary information of the 1296 accessions from the *Capsicum* genus

Supplementary Data 4

Sequence summary of the 500 core accessions

Supplementary Data 5

Genes related flowering time, flavor and biotic/abiotic stress responses in highly differentiated genome regions among the five domesticated *Capsicum* species

Supplementary Data 6

Potential selective sweeps during the domestication of *C. annuum* var. *annuum*.

Supplementary Data 7

Putative selective sweeps during the domestication of *C. baccatum* var. *pendulum*

Supplementary Data 8

Genes/QTLs related to fruit size, shape and pungency in domestication sweeps of *C. annuum* var. *annuum* and *C. baccatum* var. *pendulum*

Supplementary Data 9

Genes in the introgressed regions from *C. baccatum* to *C. frutescens* and *C. chinense*