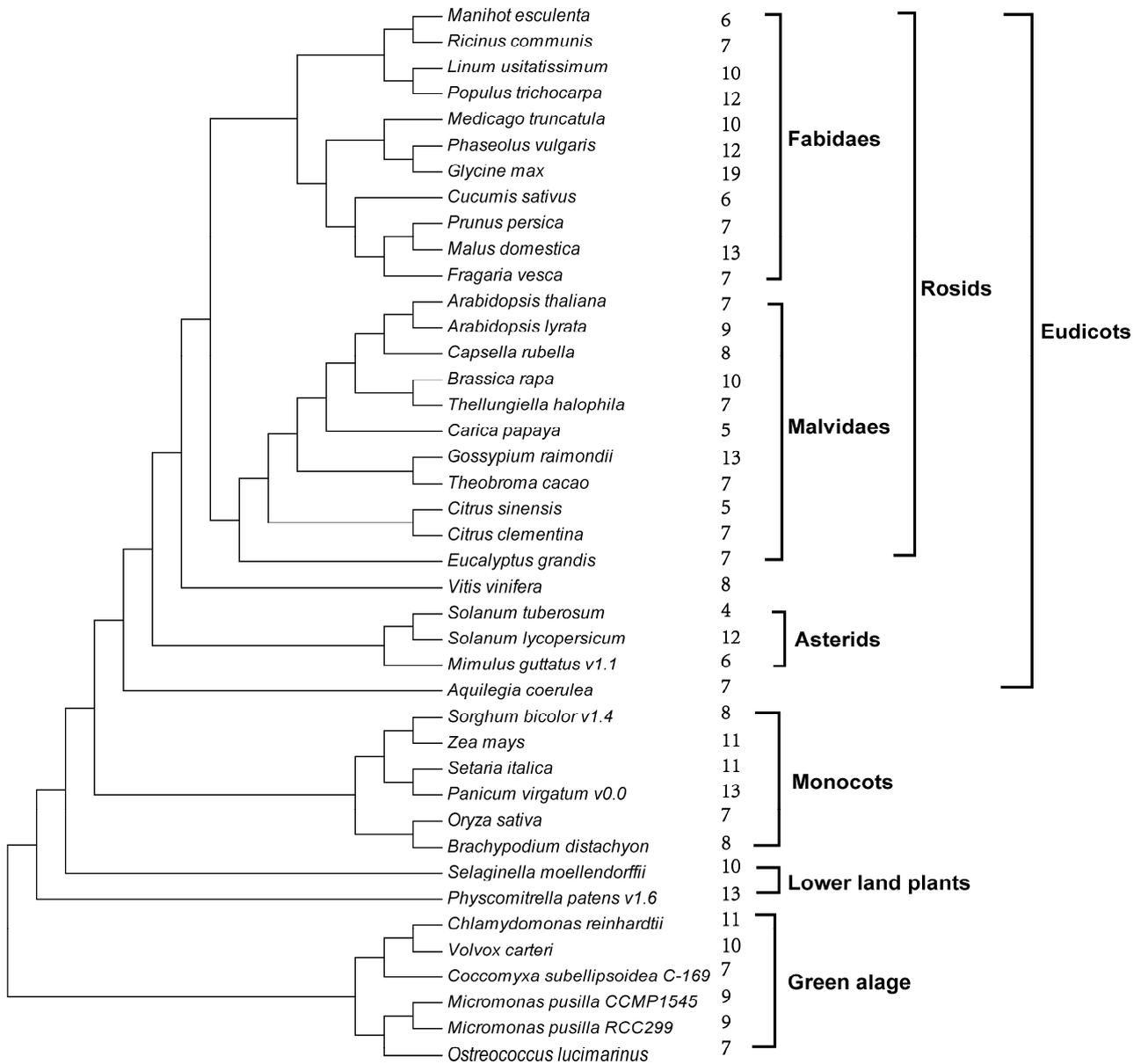
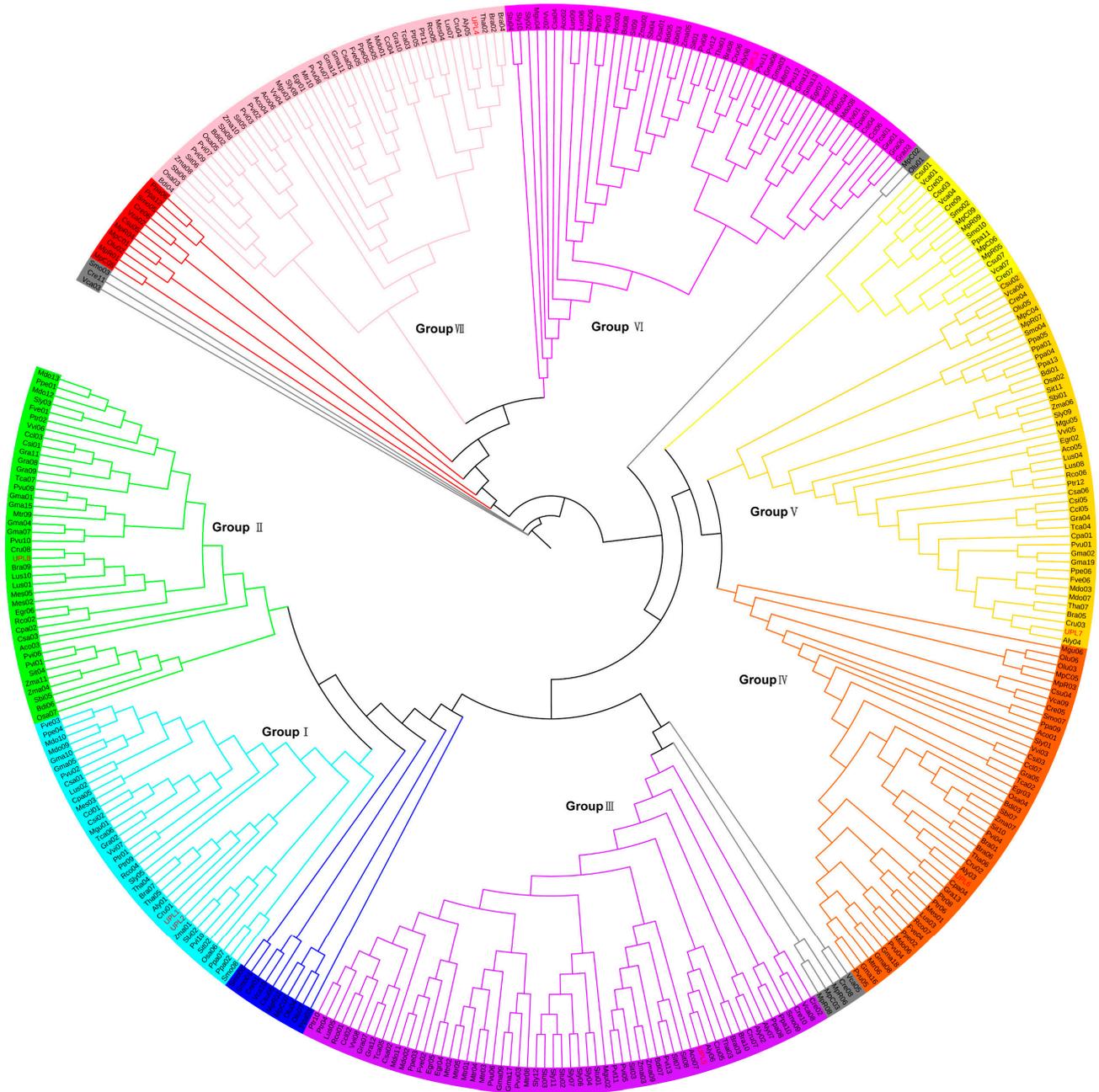


# Supplementary Information

Number of HECT genes per species



**Figure S1.** Number of HECT genes per plant genome. The HECT gene numbers per species are given based on the 41-species tree in phytozome v9.1.



**Figure S2.** Phylogenetic relationships of 365 plant HECT genes. The maximum likelihood tree constructed from 365 plant HECT domains is shown.



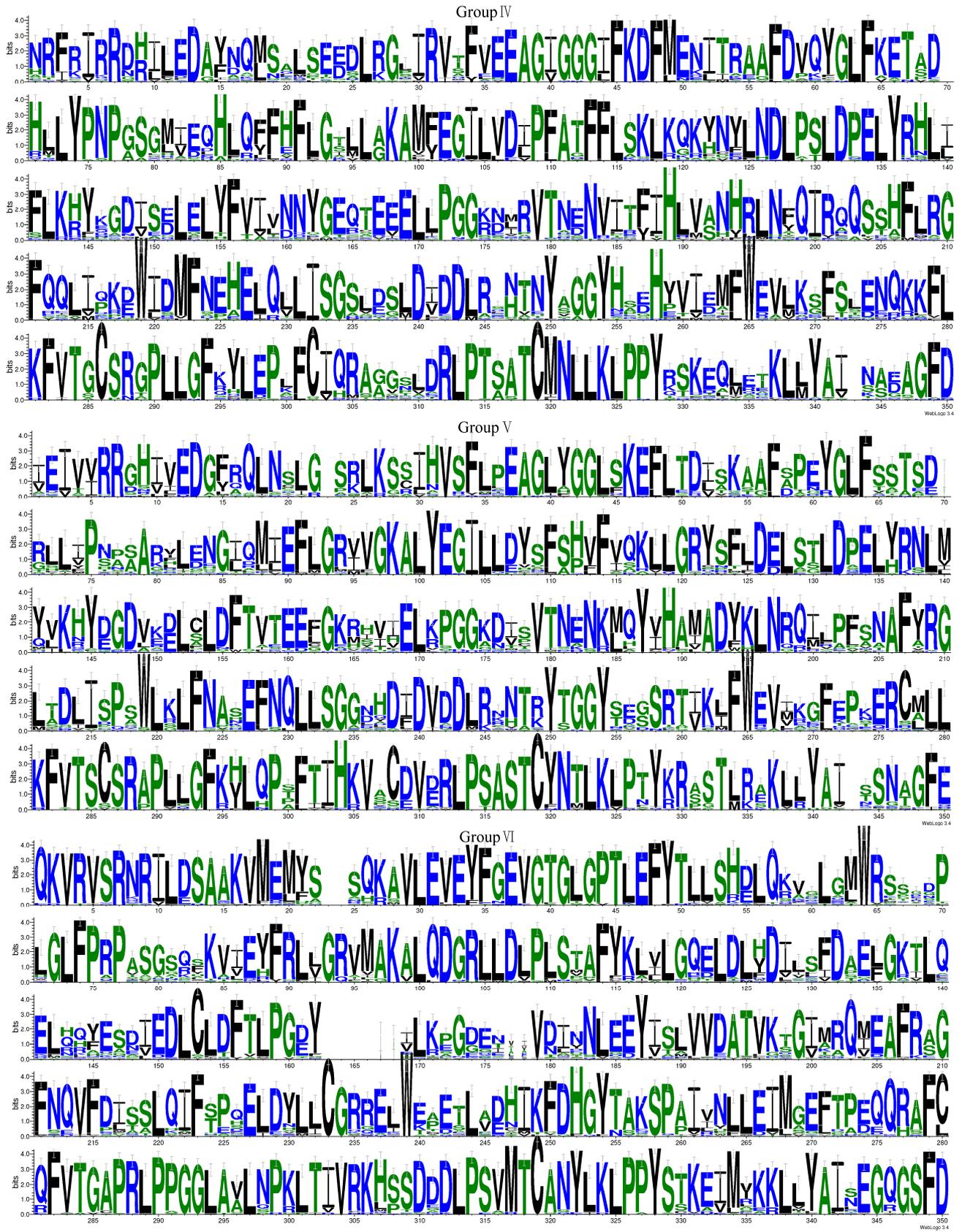


Figure S3. Cont.



**File S1.** Multiple sequence alignments of the 365 plant HECT domains filtered by trimal v1.4 with gappyout option.

**File S2.** FASTA format multiple sequence alignments of the full-length HECT proteins in *Arabidopsis thaliana*, *Glycine max*, *Medicago truncatula*, and *Phaseolus vulgaris*. MAFFT program [42] was used to align the full-length amino acid sequences of the four plant HECT genes.

**File S3.** FASTA format multiple sequence alignments of 19 full-length HECT proteins in soybean. MAFFT program [42] was used to align the full-length amino acid sequences of the 19 soybean HECT genes.