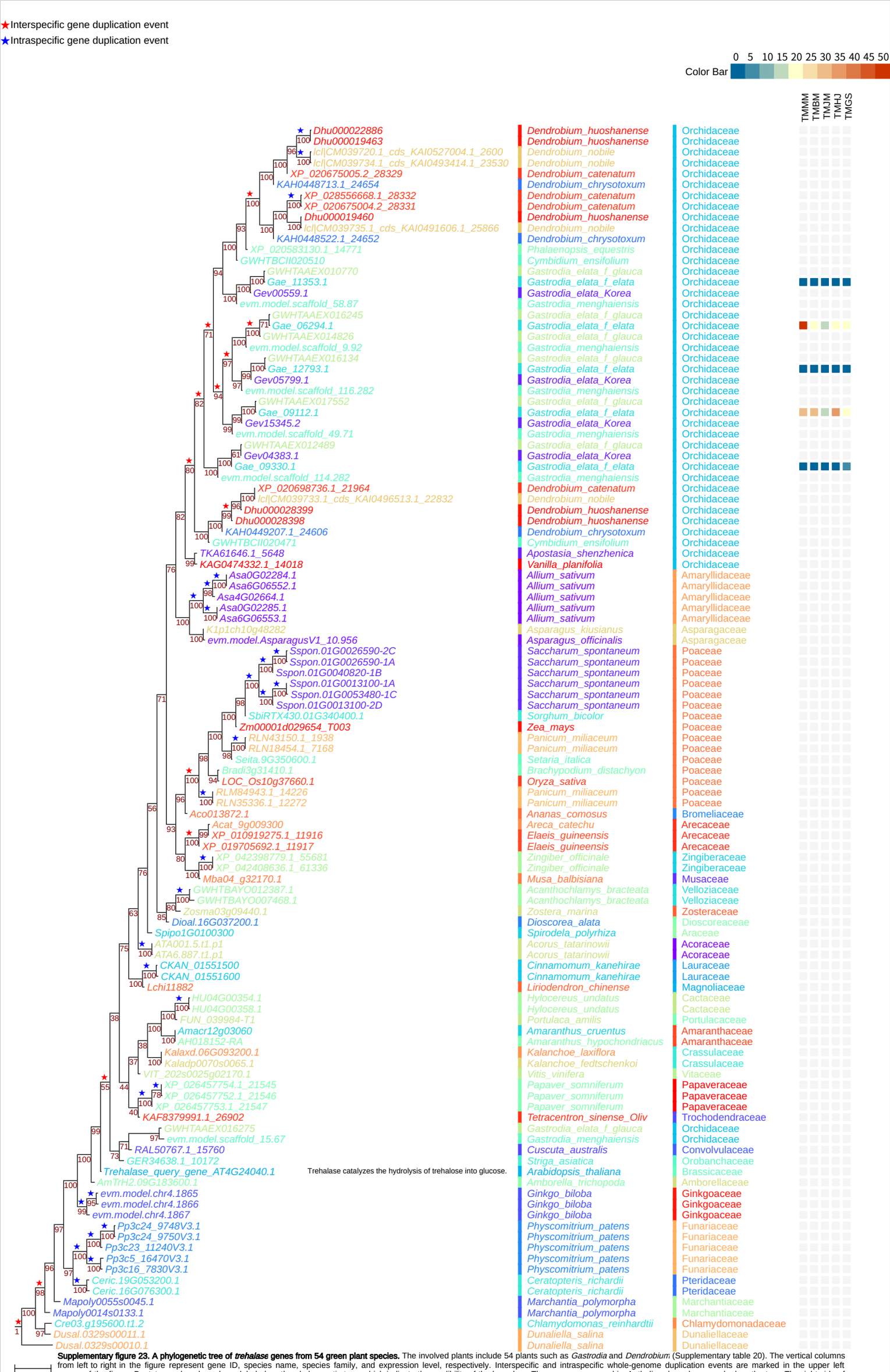

Supplementary figure 23. A phylogenetic tree of *trehalase* genes from 54 green plant species. The involved plants include 54 plants such as *Gastrodia* and *Dendrobium* (Supplementary table 20). The vertical columns from left to right in the figure represent gene ID, species name, species family, and expression level, respectively. Interspecific and intraspecific whole-genome duplication events are marked in the upper left corner of the figure. Bootstrap values have been labeled on the phylogenetic tree, which indicate the credibility of the branches. The query genes used in *A. thaliana* have been marked on the tree. The right side of the figure shows the expression data of duplicated genes in dark red *G. elata*, covering the following developmental stages: TMMM (immature tuber), TMBM (developing tuber), TMJM (mature tuber), TMGS (capsule), and TMHJ (inflorescence). Each stage has three biological replicates, and the data have been averaged.