

# Supplementary Materials for Whole-Genome Evolutionary Analyses of Non-Endosymbiotic Organelle-Targeting Nuclear Genes Reveal Their Genetic Evolution in 12 Representative Poaceae Species

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## **This PDF file includes:**

Figure S1. Exon number of NE-ONGs and whole genome nuclear genes in 12 Poaceae species.

Figure S2. Gene number of each NE-ONG groups and each GO term from B node.

Figure S3. The function enrichment of NE-ONG groups from C and D nodes.

## **Other Supplementary Materials for this manuscript include the following:**

Table S1 (Microsoft Excel format). Genomes and assembly numbers of cyanobacterial-related species and strains.

Table S2 (Microsoft Excel format). Genomes and assembly numbers of alpha-proteobacteria-related species and strains.

Table S3 (Microsoft Excel format). NE-ONGs of 12 representative Poaceae species.

Table S4 (Microsoft Excel format). Nodes' establishment conditions and condition codes of Poaceae species.

Table S5 (Microsoft Excel format). Criteria of judging “+” between Poaceae species.

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Table S7 (Microsoft Excel format). Evolutionary dynamic trajectory of pNE-ONG groups from 12 Poaceae species.

Table S8 (Microsoft Excel format). Evolutionary dynamic trajectory of mNE-ONG groups from 12 Poaceae species.

Figure S1.

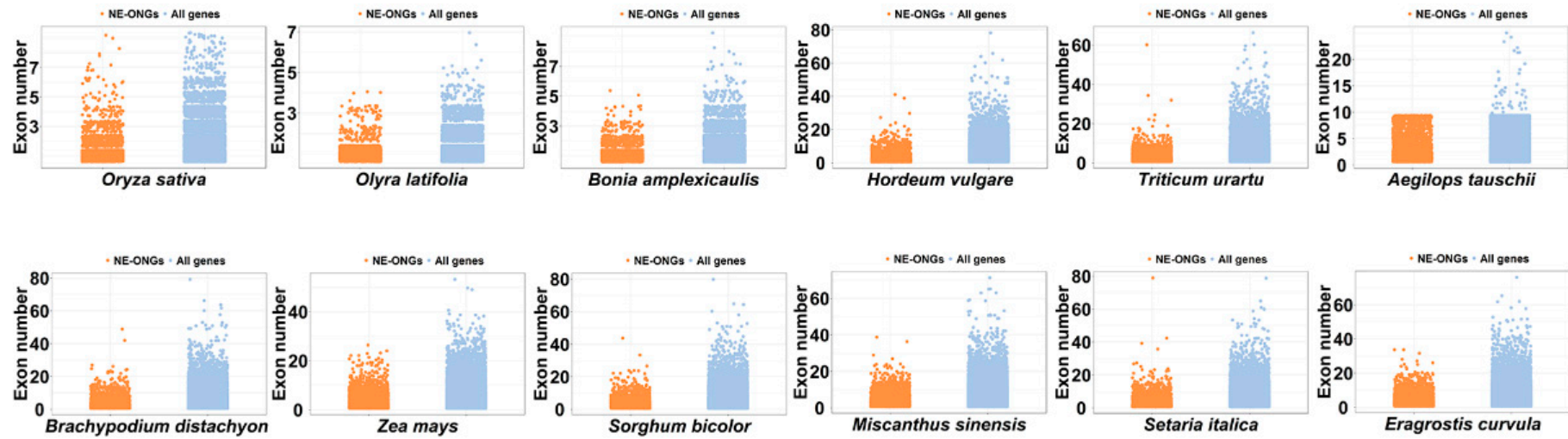
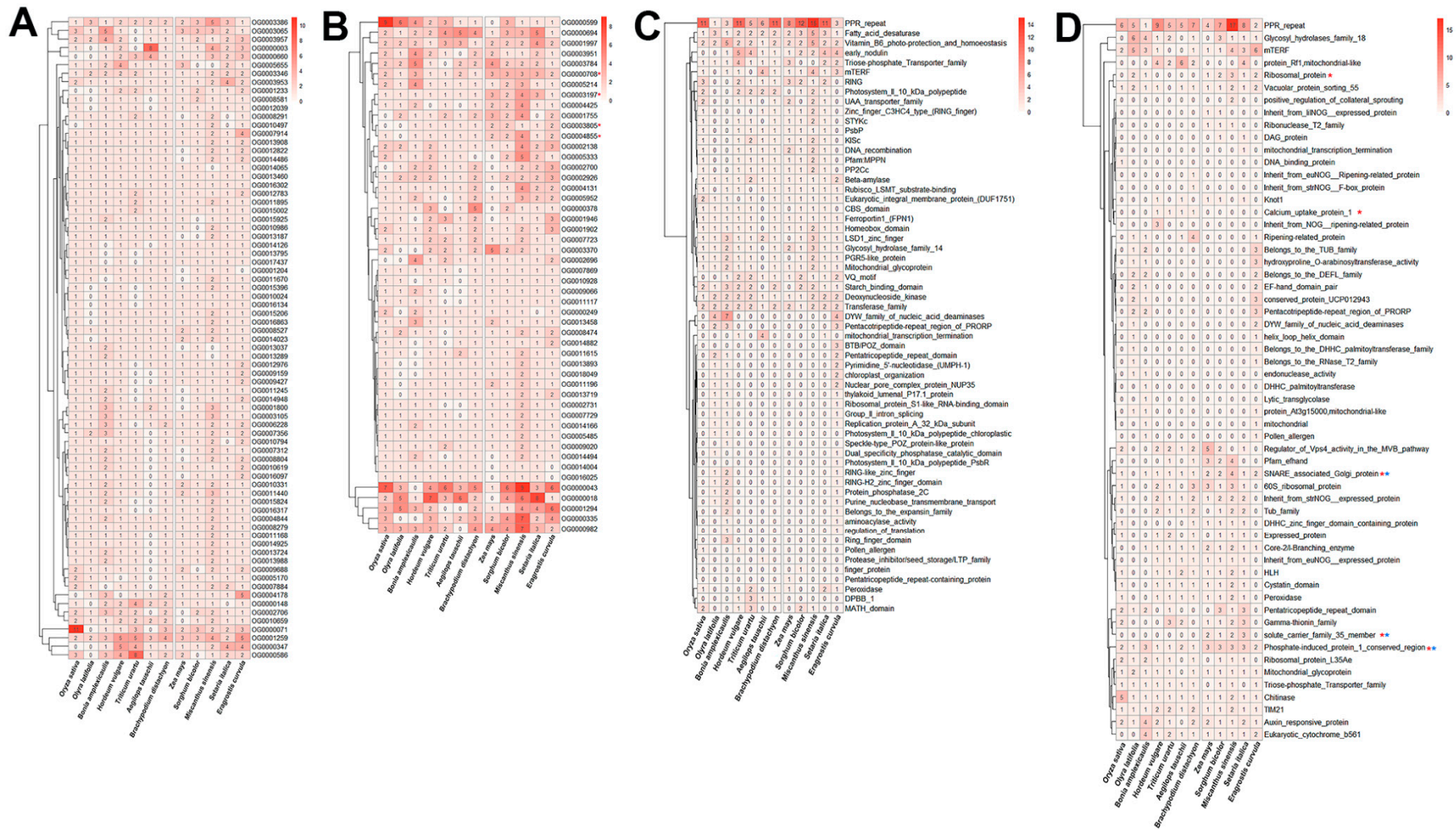


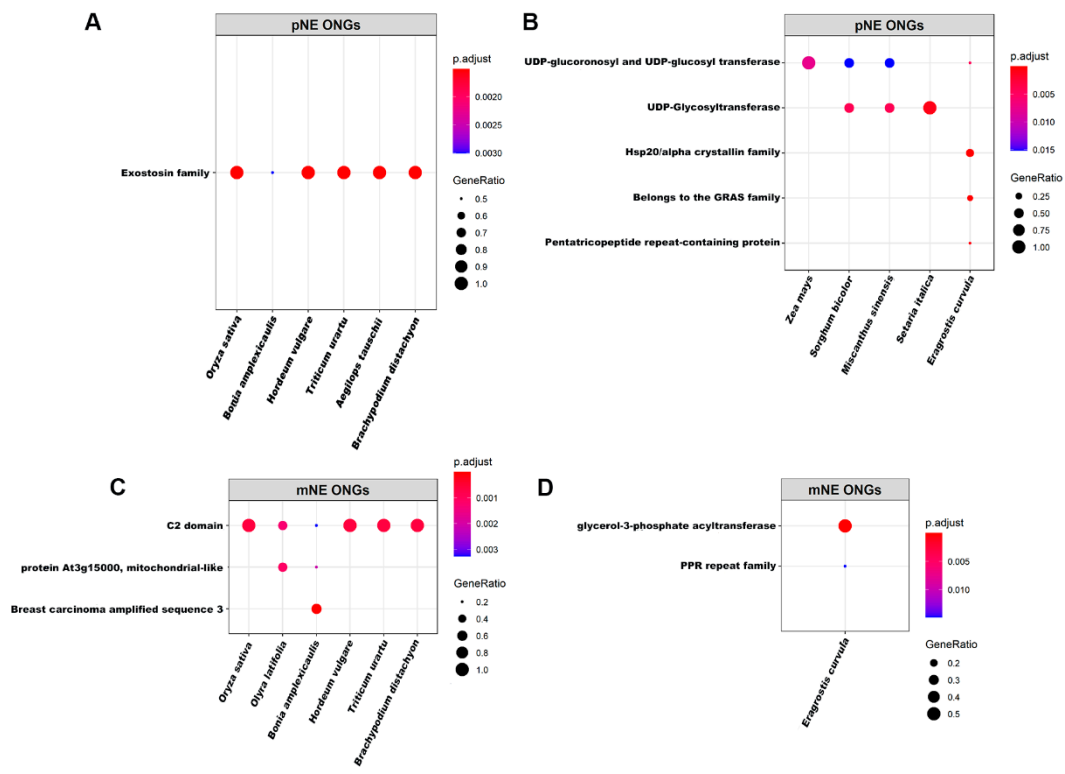
Figure S1. Exon number of NE-ONGs and whole genome nuclear genes in 12 Poaceae species.

**Figure S2.**



**Figure S2. Gene number of each NE-ONG groups and each GO term from B node.** (A)-(B) Gene number of pNE-ONG groups (A) and (B) mNE-ONG groups of B node. Red stars represent significant difference from BOP and PACMAD clade; (C)-(D) Gene number of each GO term from pNE-ONG groups(C) and (D) mNE-ONG groups in B node. Red asterisks represent significant difference of gene number between BOP and PACMAD clade, blue asterisks represent significant difference of gene number in GO term corresponding NE-ONG groups between the two clades as well.

Figure S3.



**Figure S3. The function enrichment of NE-ONG groups from C and D nodes. (A)-(B)** The function enrichment of pNE-ONG groups from C node (A) and D node (B); **(C)-(D)** The function enrichment of mNE-ONG groups from C node (C) and D node (D).