

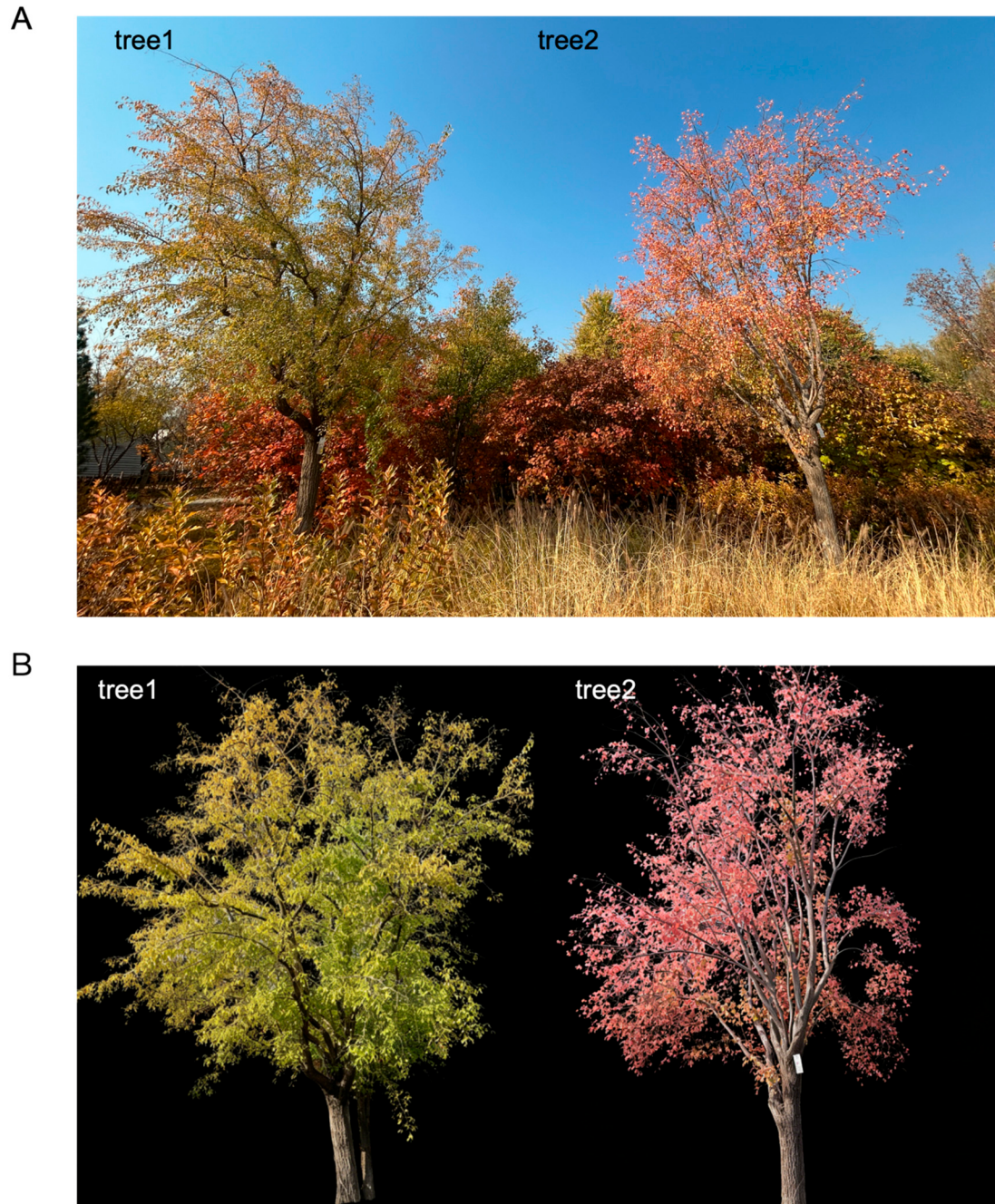


Figure S1. Environmental consistency and phenotypic divergence of the sampled *Euonymus maackii* individuals. (A) Natural habitat and spatial relationship of the two representative trees. The intact environmental background demonstrates their close physical proximity within an identical microenvironment, ensuring that both individuals were exposed to consistent climatic and soil conditions. (B) Isolated phenotypic comparison without background interference. By removing the environmental background, the distinct coloration phenotypes between two representative trees. Tree 1: yellow leaves; Tree2: red leaves.

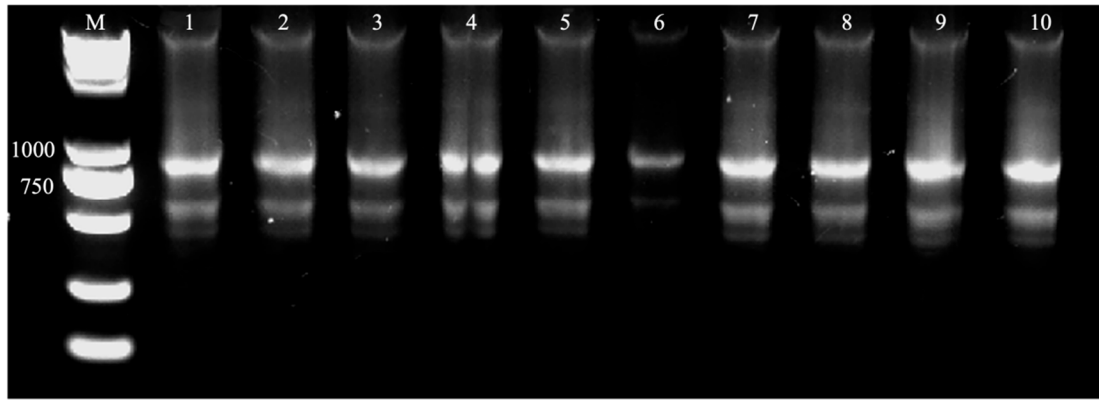


Figure S2. RNA agarose gel electrophoresis of different samples of *E. maackii*. M: 2000bp Plus DNA Marker, 1: Leaf buds, 2: Young leaves, 3: Mature green leaves, 4: Red leaves, 5: Yellow leaves, 6: Flowers, 7: Phloem, 8: New stems, 9: New roots, 10: Old roots.

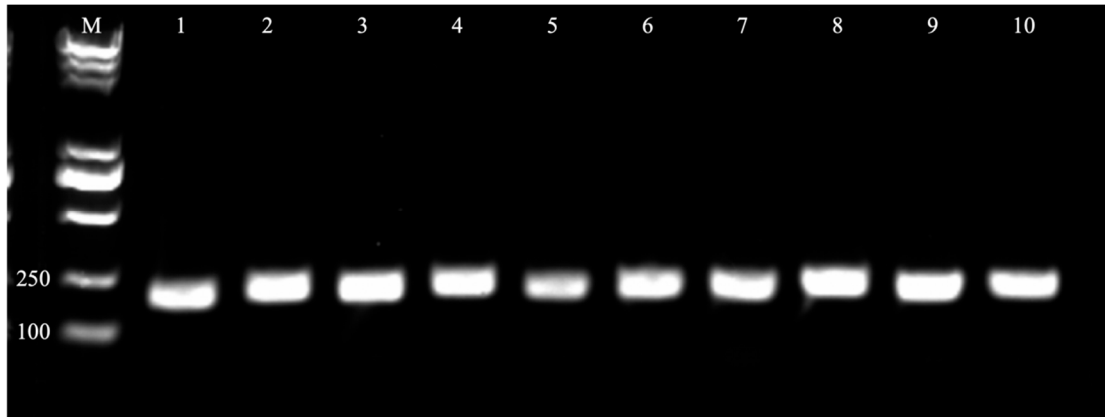


Figure S3. Agarose gel electrophoresis image of PCR products of 10 candidate reference genes. M: 2000bp Plus DNA Marker, 1: *PP2C*, 2: *TUA*, 3: *TUB*, 4: *UBC*, 5: *ACT7*, 6: *TIP41*, 7: *EF1-α*, 8: *GAPDH*, 9: *CYP*, 10: *PGK*.