

Wood Anatomy of Korean *Symplocos* Jacq. (Symlocaceae)

Balkrishna Ghimire, Beom Kyun Park, Seung-Hwan Oh and Dong Chan Son*

Division of Forest Biodiversity, Korea National Arboretum, Pocheon 11186, Korea

Symplocos Jacq. including about 350 species is the sole isolated genus of the family Symlocaceae. Despite poorly documented species delimitation and unresolved taxonomic nomenclature four species of *Symplocos* (*S. coreana*, *S. purnifolia*, *S. sawafutagi*, and *S. tanakana*) have been described in Korea. In this study, we carried the comparative wood anatomy of all the four species of Korean *Symplocos* to understand the wood anatomical variations within these four species. The result of this study indicated that Korean *Symplocos* are comparatively indistinguishable in terms of their qualitative wood features except for exclusively uniseriate rays present in *S. purnifolia* instead of uni- to- multiseriate in other three species. However, discrepancies are observed in quantitative wood variables such as vessel density, vessel size, and ray density. The vessel density of *S. purnifolia* (highest among the four species) is more than two times higher than the *S. sawafutagi* (lowest among the four species) and *S. tanakana*. On the other hand, vessel size is likewise reverse to the vessel number relationships i. e. vessel circumference and diameter in both planes of *S. sawafutagi* and *S. tanakana* is almost twice a larger than *S. purnifolia*. Interestingly, *S. coreana* remains in between of these two groups in terms of vessel features and closer to *S. purnifolia* in terms of ray density. The cluster analysis based on the paired group (UPGMA) algorithm using the Euclidean similarity index clearly differentiates *S. purnifolia* from the rest of the taxa representing the first isolated clade of the tree.

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*(Corresponding author) E-mail: sdclym@korea.kr, Tel: +82- 31-540-8813