

**Variasi Dan Hubungan Fenetik Kayu Hitam
(*Diospyros celebica* Bakh.) Di Sulawesi Tengah Berdasarkan
Penanda Morfologis Dan Anatomis**

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INTISARI

Diospyros celebica Bakh. merupakan pohon endemik yang terkadang masih sulit dibedakan secara morfologis dengan genus *Diospyros* lain semisal *D. rumphii*. Penelitian ini bertujuan untuk menentukan variasi morfologis dan anatomis serta gambaran hubungan kekerabatan sampel *D. celebica* di Sulawesi. Karakter anatomis penampang melintang ranting dibuat menggunakan metode *hands free section*, preparat awetan daun diamati dengan metode penyelubungan parafin, dan preparat paradermal dibuat dengan merebus daun dengan larutan asam nitrat (HNO_3). Data morfologis dan anatomis yang diperoleh dianalisis menggunakan dua pendekatan yaitu pendekatan deskriptif dan pendekatan numerik. Data yang diperoleh selanjutnya dianalisis menggunakan *Multivariate Statistical Program MVSP 3.1* dengan metode *Unweighted Pair Group Methods Using Arithmetic Averages (UPGMA)* berdasarkan *Gower similarity coefficient* untuk analisis *clustering* dan pembuatan dendrogram. Dendrogram dengan garis fenon 0,70 menunjukkan penanda morfologi serta korelasi antara morfologi dan anatomi membentuk tiga klaster dengan topologi dan keanggotaan yang sama dengan total persentase similaritas sebesar 78,77% dan 64,87% , sedangkan penanda anatomi menunjukkan tiga klaster dengan topologi dan keanggotaan yang berbeda dengan total persentase similaritas sebesar 61,97%. Hal ini menunjukkan bahwa penanda morfologis dan anatomis tidak kongruen atau hubungan fenetik *intraspecies* berdasarkan karakter anatomis pada penelitian ini kurang kuat. Informasi ini mungkin berguna untuk pengembangan taksonomi dan struktur tumbuhan, serta konservasi.

Kata kunci: Anatomis, *Diospyros celebica* Bakh., *Diospyros*, hubungan kekerabatan, morfologis.

**Variation And Phenetic Relationship of Ebony
(*Diospyros celebica* Bakh.) Accession In Central Sulawesi Based on
Morphological and Anatomical Characters**

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ABSTRACT

Diospyros celebica Bakh. is an endemic tree that is sometimes difficult to distinguish morphologically from other *Diospyros* genera such as *D. rumphii*. This study aims to determine the morphological and anatomical variations as well as a description of the phenetic relationship of *D. celebica* samples in Sulawesi. Anatomical characters of branch cross-sections were prepared using the hands-free section method, preserved leaf preparations were observed using the paraffin coating method, and paradermal preparations were made by boiling the leaves with a solution of nitric acid (HNO₃). The morphological and anatomical data obtained were analyzed using two approaches, namely the descriptive approach and the numerical approach. The data obtained were then analyzed using the Multivariate Statistical Program MVSP 3.1 with the Unweighted Pair Group Methods Using the Arithmetic Averages (UPGMA) method based on the Gower similarity coefficient for clustering analysis and making dendrograms. The dendrogram with a phenon line of 0.70 shows morphological markers and the correlation between morphology and anatomy forming three clusters with the same topology and membership with a total similarity percentage of 78.77% and 64.87%, while the anatomical markers show three clusters with different topology and membership with a total similarity percentage of 61.97%. This shows that the morphological and anatomical markers are not congruent or the intraspecies phenetic relationship based on anatomical characters in this study is not strong enough. This information may be useful for the development of plant taxonomy and structure, as well as conservation. relationships based on anatomical characters in this study were not strong enough to support intraspecies phenetic relationships based on morphological characters. This information may be useful for the development of plant taxonomy and structure, as well as conservation.

Keywords : Anatomy, *Diospyros celebica* Bakh., *Diospyros*, morphology, phenetic relationship.