

PENINJAUAN ULANG IDENTITAS PERTANAMAN UJI KETURUNAN *Diospyros celebica* DI KHDTK WANAGAMA I BERDASARKAN CIRI LENGKAP VEGETATIF DAN GENERATIF

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INTISARI

Eboni (*Diospyros celebica*) adalah salah satu tumbuhan endemik Sulawesi yang bertipe monoesis, kadang diesis, dan kayunya bernilai ekonomi tinggi. Program pemuliaan sekaligus konservasi ex-situ sumber daya genetik eboni telah dilakukan, salah satunya melalui eksplorasi 1994 yang kemudian dibangun sebagai pertanaman uji keturunan di KHDTK Wanagama I. Ketika penelitian pendahuluan, beberapa pohon diketahui menunjukkan adanya variasi morfologi. Muncul dugaan bahwa tidak seluruhnya spesies *D. celebica* dan diduga terdapat pula varian dari *D. celebica*. Peninjauan kembali identitas taksonomi dengan ciri lengkap belum pernah dilakukan. Penelitian ini dilakukan ketika periode pembungaan 2022 yang bertujuan untuk (1) memverifikasi identitas spesies penyusun pertanaman uji, (2) meninjau variasi vegetatif generatif *D. celebica* dari berbagai *seedlot*, dan (3) mengungkap profil seksualitas pohon-pohon *D. celebica* penyusun pertanaman uji.

Metode standar taksonomi morfologi dilakukan untuk tujuan pertama dan kedua. Untuk tujuan ketiga, metode dilakukan dengan pemanjatan langsung. Tiga cabang utama yang banyak berbunga dari tiga sisi yang berbeda dipotong kemudian diamati langsung secara detail. Koleksi sampel yang mewakili untuk herbarium kering dan basah diambil sejumlah tiga sampel untuk tiap cabang utama, sehingga total berjumlah sembilan sampel untuk tiap pohon. Pohon yang didapatkan bunga jantan dan betina dalam sampel maka bertipe monoesis. Pohon yang hanya didapatkan bunga betina saja atau bunga jantan saja dalam sampel diduga bertipe diesis. Untuk memastikan, pohon tersebut dipanjat kembali dan diamati secara menyeluruh apakah benar diesis.

Hasil menunjukkan bahwa terdapat spesies *D. rumphii* yaitu S137A-IV-k, S035-III-i, S138-IV-k, S138-IV-l, S130-IV-l, S014-III-d, T140-III-f, dan S048-III-g. Spesies *D. celebica* diketahui memiliki varian pada ciri generatif yaitu sepala 5, cuping petala 5, cuping petala adaksial dari pangkal ke tengah *glabrous* namun ujung *pubescens*, biji 10. Varian ini diusulkan sebagai varietas baru yaitu *D. celebica* var. *pentasepala* Nug.,Indr.,&Syah. Dua *seedlot* yaitu T144-III dan S061-III diduga hibrid karena menunjukkan ciri morfologi peralihan. Pohon-pohon *D. celebica* yang berbunga diketahui bertipe monoesis yaitu S041-III-i, S130A-III-h, S021-IV-k, S135-IV-k, S047-IV-j, S138-III-h, T192-III-i, S130A-III-g, & S065-II-p. Pohon diesis jantan yaitu T138-IV-l, S130A-III-f, S014-III-e, S056-III-c, S056-III-b, S053-III-d, S046-IV-l, S040-II-k, S040-II-l, DW045-III-e, & T165-III-h. Pohon diesis betina yaitu S039-II-l, S039-III-i, T137-III-h, T126-II-j, S014-III-a, & T183-III-i.

Kata kunci: *Diospyros celebica*, varietas baru, pohon jantan, pohon betina, *Diospyros rumphii*

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TAXONOMIC IDENTITY REASSESSMENT OF *Diospyros celebica* PROGENY TRIAL PLANTATION IN WANAGAMA RESEARCH FOREST BASED ON COMPLETE VEGETATIVE AND GENERATIVE CHARACTERS

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ABSTRACT

Ebony (*Diospyros celebica*) is one of the endemic plants of Sulawesi which is monoecious, sometimes dioecious, and its wood has high economic value. Tree improvement programs as well as ex-situ conservation of ebony genetic resources have been carried out, one of which was through exploration in 1994 which was later built as progeny plantation in Wanagama I research forest. During preliminary research, several trees were known to show morphological variations. It is suspected that not all of them are *D. celebica* species and suspected also that there are variants of *D. celebica*. A taxonomic identity reassessment based on complete morphological characters has never been done. This research was conducted during 2022 flowering period with the aim of (1) verifying the species identity of trees of progeny trial plantation, (2) assessing the vegetative and generative variations of *D. celebica* from various seedlots, and (3) revealing the sexuality profile of *D. celebica* trees of progeny trial plantation.

The standard method of morphological taxonomy was carried out for the first and second objectives. For the third objective, observation method was carried out by direct climbing. The three main branches which had lots of flowers from three different sides were cut and then observed in detail. Representative sample collections for dry and wet herbariums were taken in the amount of three for each main branch, bringing a total of nine samples for each tree. Trees that get both male and female flowers are of the monoecious type. Trees with only female flowers or only male flowers in the sample are suspected to be of dioecious type. To be sure, the tree was re-climbed and reobserved thoroughly to determine its dioecious status.

The results showed that there were species of *D. rumphii* namely S137A-IV-k, S035-III-i, S138-IV-k, S138-IV-l, S130-IV-l, S014-III-d, T140-III-f, and S048-III-g. The *D. celebica* is known to have variants in generative characters in having 5 sepals, 5 petal lobes, adaxial petal lobes from base to middle glabrous but pubescens at tip, 10 seeds. This variant is proposed as a new taxonomic variety, namely *D. celebica* var. *pentasepala* Nug.,Indr.,&Syah. The two seedlots, T144-III and S061-III, were suspected to be hybrid because they showed transitional morphological characters. The flowering trees of *D. celebica* are known to be of the monoecious type, namely S041-III-i, S130A-III-h, S021-IV-k, S135-IV-k, S047-IV-j, S138-III-h, T192-III-i, S130A-III-g, & S065-II-p. The male dioecious type trees are T138-IV-l, S130A-III-f, S014-III-e, S056-III-c, S056-III-b, S053-III-d, S046-IV-l, S040-II-k, S040-II-l, DW045-III-e, & T165-III-h. The female dioecious type trees are S039-II-l, S039-III-i, T137-III-h, T126-II-j, S014-III-a, & T183-III-i.

Key words: *Diospyros celebica*, new taxonomic variety, male trees, female trees, *Diospyros rumphii*.

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