

VARIASI DAN HUBUNGAN FENETIK AKSESORI KUNIR PUTIH (*Kaempferia rotunda* L.) DI YOGYAKARTA DAN SEKITARNYA BERDASARKAN KARAKTER MORFOLOGIS DAN ANATOMIS

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INTISARI

Kaempferia rotunda tumbuh tersebar di Pulau Jawa demikian pula Daerah Istimewa Yogyakarta dengan keragaman habitat beragam sehingga berpotensi mempengaruhi variasi infraspecies. Penelitian ini bertujuan untuk mengetahui variasi morfologis dan anatomis *Kaempferia rotunda* di Yogyakarta serta hubungan kekerabatan fenetik aksesinya. Enam belas aksesori diambil secara acak dari Yogyakarta dan sekitarnya, kemudian dilakukan karakterisasi morfologis dan anatomis. Karakter morfologis yang diamati meliputi seluruh organ kecuali bunga, sedangkan karakter anatomis yang diamati antara lain organ daun, umbi, dan rimpang. Pembuatan preparat untuk pengamatan anatomis menggunakan metode preparat semi permanen. Hasil penelitian menunjukkan bahwa variasi morfologis *Kaempferia rotunda* di Yogyakarta dan sekitarnya adalah pola warna sisi abaksial daun, gelombang tepi daun, banyak daun, intensitas perakaran, jumlah dan warna permukaan umbi. Variasi anatomis *Kaempferia rotunda* adalah ketebalan epidermis abaksial midrib dan lamina, ketebalan berkas pengangkut, ketebalan midrib, ketebalan palisade, ketebalan korteks rimpang, densitas sel minyak rimpang, ketebalan korteks umbi, serta diameter stele rimpang. Berdasarkan analisis fenetik aksesori *Kaempferia rotunda* berdasarkan karakter morfologis pada indeks similaritas 0,6 terbagi menjadi 5 klaster, dan berdasarkan karakter anatomis terbagi menjadi 3 klaster. Aksesori 15 secara morfologis merupakan klaster tersendiri terhadap 4 klaster yang lainnya.

Kata kunci: *Kaempferia rotunda*, analisis fenetik aksesori, morfologis, anatomis

**VARIATION AND PHENETIC RELATIONSHIPS OF KUNIR PUTIH
(*Kaempferia rotunda* L.) ACCESSION IN YOGYAKARTA AND
ADJACENT AREA BASED ON MORPHOLOGICAL
AND ANATOMICAL CHARACTERS**

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ABSTRACT

Kaempferia rotunda grows spread across the island of Java as well as the Special Region of Yogyakarta with its diversity in diverse habitats which has the potential to affect variations in infraspecies. This study aims to determine the morphological and anatomical variations of *Kaempferia rotunda* in Yogyakarta and the phenetic relationships of their accessions. Sixteen accessions were taken randomly from Yogyakarta and its surroundings, then morphological and anatomical characterization was carried out. The morphological characters observed included all organs except the flower, while the observed anatomical characters included leaf and rhizome organs. Preparation for anatomical observation uses semi-permanent preparation method. The results showed that the morphological variations of *Kaempferia rotunda* in Yogyakarta and adjacent area were the color pattern of the abaxial side of the leaves, leaf edge waves, leaf number, root intensity, number and surface color of the tubers. The anatomical variations of *Kaempferia rotunda* are the thickness of the midrib and lamina abaxial epidermis, the thickness of the bundle sheath, the thickness of the midrib, the thickness of the palisade, the thickness of the rhizome cortex, the density of rhizome oil cells, the thickness of the tuber cortex, and the diameter of the rhizome stele. Based on the phenetic analysis of *Kaempferia rotunda* accession based on morphological characters at a similarity index of 0.6 divided into 5 clusters, and based on anatomical characters divided into 3 clusters. Accession 15 was morphologically a separate cluster against the other 4 clusters.

Key words: Kaempferia rotunda, phenetic analysis of accession, morphological, anatomical