

**VARIASI DAN ANALISIS FENETIK TUMBUHAN BAVOA
(*Cleome gynandra* L.) DI SULAWESI TENGAH
BERDASARKAN KARAKTER MORFOLOGIS
DAN *INTER-SIMPLE SEQUENCE REPEAT***

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INTISARI

Bavoa (*Cleome gynandra* L.) merupakan tumbuhan yang sering ditemukan dipinggir jalan, sawah, maupun ladang. Kondisi lingkungan sangat berpengaruh signifikan terhadap variasi Bavoa hal ini memungkinkan adanya variasi yang tinggi dari Bavoa di Sulawesi Tengah. Tujuan penelitian ini adalah untuk mengetahui variasi karakter morfologis dan molekuler Bavoa di Sulawesi Tengah. Sampel dikoleksi di Sulawesi Tengah sebanyak 10 aksesori. Data morfologis dianalisis secara deskriptif dan numerik. Konstruksi dendrogram berdasarkan karakter morfologis menggunakan rumus *Gower's general similarity coefficient*, dengan metode UPGMA. Analisis komponen utama dengan membentuk diagram *scatter plot* tipe *Euclidean biplots*. Data molekuler dianalisis secara numerik dengan teknik DNA fingerprinting menggunakan 5 penanda *Inter-Simple Sequence Repeat* (ISSR), meliputi persentase polimorfisme. Konstruksi dendrogram berdasarkan karakter molekuler menggunakan rumus *SSm* (*Simple Matching Coefficient*) dengan metode UPGMA. Hasil penelitian pada 10 aksesori Bavoa menunjukkan variasi morfologis paling banyak ditemukan pada organ batang dan tangkai daun, berupa ukuran, warna, dan banyaknya trikoma. Pada dendrogram berdasarkan karakter morfologis terbentuk 4 kluster pada similaritas 86%. Karakter molekuler berdasarkan visualisasi hasil amplifikasi menghasilkan 45 pita dengan rata-rata persentase polimorfisme 13.1 %. Pada dendrogram berdasarkan karakter molekuler terbentuk 3 kluster pada similaritas 86%.

Kata Kunci: *Cleome gynandra* L., Bavoa, morfologis, ISSR, kekerabatan fenetik.

VARIATION AND PHENETIC ANALYSIS OF BAVOA PLANT (*Cleome gynandra* L.) IN CENTRAL SULAWESI BASED ON MORPHOLOGICAL CHARACTERS AND INTER-SIMPLE SEQUENCE REPEAT

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ABSTRACT

Bavoa (*Cleome gynandra* L.) is a plant that is often found alongside roads, rice fields, and fields. Environmental conditions have a significant effect on Bavoa variation, this allows for a high variation of Bavoa in Central Sulawesi. This study aims to determine the variation of morphological and molecular characters of Bavoa in Central Sulawesi. Samples are collected from 10 accessions in Central Sulawesi. Morphological data were analyzed descriptively and numerically. The dendrogram construction based on morphological characters uses the Gower's general similarity coefficient with the UPGMA method. Principal component analysis by forming a scatter plot diagram of the Euclidean biplot type. Molecular data were analyzed numerically by DNA fingerprinting technique using 5 ISSR markers, including the percentage of polymorphism. The dendrogram construction based on the molecular character uses the SSm (Simple Matching Coefficient) formula with the UPGMA method. The results showed that the most morphological variations were found in the were found in the stem and petiole organs, in the form of size, color, and number of trichomes. The dendrogram based on morphological characters, 4 clusters were formed at 86% similarity. Molecular characters based on the visualization of the amplification results produced 45 bands with an average polymorphism percentage of 13.1%. The dendrogram based on the molecular character, 3 clusters were formed at 86% similarity.

Key Word: *Cleome gynandra* L.,Bavoa, morphological, ISSR, phenetic relationship.