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**Perbandingan Anatomi Anggrek Dendrobium anosmum Rchb.f. ex Oliv. dan Dendrobium spathilingue J.J.Sm**
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# PERBANDINGAN ANATOMI DAUN ANGGREK *Dendrobium anosmum* Lindl. DAN *Dendrobium spathilingue* J.J.Sm

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## INTISARI

Anggrek (Orchidaceae) populer sebagai tanaman hias yang bernilai komersial tinggi. *Dendrobium* adalah salah satu genus tersebar dalam famili Orchidaceae. Daun merupakan salah satu organ penting pada tumbuhan yang berperan dalam proses fotosintesis, transpirasi dan pertukaran gas. Anggrek pada genus *Dendrobium* memiliki struktur anatomi daun yang khas sebagai bentuk adaptasi epifit terhadap lingkungan tropis dan subtropis, terutama pada spesies *Dendrobium anosmum* dan *Dendrobium spathilingue*. Penelitian ini bertujuan untuk menganalisis karakteristik paradermal dan anatomi penampang melintang daun *Dendrobium anosmum* dan *Dendrobium spathilingue*, membandingkan persamaan serta perbedaan struktur keduanya, serta mengidentifikasi kandungan histokimia beruoa lipid, protein, alkaloid, dan lignin pada jaringan daun kedua spesies. Pembuatan preparat anatomi daun dilakukan menggunakan metode *Free-hand section*. Analisis histokimiawi meliputi deteksi amilum (JKJ), Lipid (SBB), Protein menggunakan (CBB), uji lignin (Phlorogucinol) dan uji alkaloid (Dragendorff). Hasil analisis paradermal menunjukan stomata lebih banyak terdapat pada sisi abaksial kedua daun, pada analisis penampang melintang, lapisan kutikula kedua daun tergolong tebal dan halus. Analisis histokimiawi kedua daun menunjukkan akumulasi positif amilum dan protein pada jaringan vaskuler, lignin pada xilem dan sklerenkim, serta lipid pada kutikula, mesofil, dan jaringan vaskuler.

KATA KUNCI: Calcarifera, Epifit, Histokimiawi, Paradermal, Stomata

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# COMPARATIVE LEAF ANATOMY OF *Dendrobium anosmum* Lindl. AND *Dendrobium spathilingue* J.J.Sm

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## ABSTRACT

Orchids (Orchidaceae) are popular as ornamental plants with high commercial value. *Dendrobium* is one of the most widespread genera in the Orchidaceae family. Leaves are one of the most important organs in plants, playing a role in photosynthesis, transpiration, and gas exchange. Orchids in the genus *Dendrobium* have distinctive leaf anatomical structures that serve as an epiphytic adaptation in tropical and subtropical environments, particularly in *Dendrobium anosmum* and *Dendrobium spathilingue*. This study aims to analyze the paradermal characteristics and cross-sectional anatomy of *Dendrobium anosmum* and *Dendrobium spathilingue* leaves, compare their structural similarities and differences, and identify the histochemical content of lipids, proteins, alkaloids, and lignin in the leaf tissues of both species. Anatomical leaf preparations were made using the free-hand section method. The histochemical analysis included detection of starch (JKJ), lipids (SBB), proteins (CBB), lignin (Phloroglucinol), and alkaloids (Dragendorff). Paradermal analysis results showed that stomata were more abundant on the abaxial side of both leaves; cross-sectional analysis revealed that the cuticle layers of both leaves were thick and smooth. Histochemical analysis of both leaves revealed positive accumulation of starch and protein in the vascular tissue, lignin in the xylem and sclerenchyma, and lipids in the cuticle, mesophyll, and vascular tissue.

KEYWORDS: Calcarifera, Epiphyte, Histochemical, Paradermal