

## Abstrak

Genus *Piper* salah satu anggota famili Piperaceae yang tersebar di kawasan tropis dan dapat tumbuh dari daerah dataran rendah hingga dataran tinggi mencapai ketinggian 2000 mdpl. Berbagai spesies anggota genus *Piper* menjadi koleksi Balai Kebun Raya Baturraden terdiri dari *Piper aduncum*, *Piper betle*, *Piper crocatum*, *Piper nigrum*, dan *Piper sarmentosum* memiliki karakter anatomi yang berbeda-beda. Penelitian ini bertujuan untuk mengetahui keragaman karakter anatomi daun dan batang pada genus *Piper* spesies koleksi Balai Kebun Raya Baturraden dan mengetahui perbedaan karakter anatomi pada masing-masing spesiesnya. Penelitian ini menggunakan metode survei untuk pengambilan sampel, serta metode *embedding* (parafin) dan preparat segar untuk pembuatan preparat anatomi. Data kualitatif dianalisis secara deskriptif untuk mengetahui karakter anatomi daun dan batang genus *Piper*. Data kuantitatif dianalisis menggunakan uji Anova pada taraf kepercayaan 95%, dilanjutkan dengan uji lanjut Tukey pada  $\alpha = 10\%$  menggunakan SPSS. Hasil penelitian menunjukkan bahwa spesies genus *Piper* koleksi memiliki keragaman anatomi daun pada kerapatan stomata, kerapatan trikومات, tebal kutikula abaksial, tebal epidermis adaksial, tipe stomata, tipe trikomata, bentuk sel epidermis, dan keberadaan hipodermis. Perbedaan karakter anatomi daun dari kelima spesies yang diamati yaitu stomata staurositik, stomata tetrasitik, stomata anomositik, trikomata kelenjar, trikomata tanpa kelenjar, sel epidermis berbentuk papila, dan tidak adanya sel hipodermis.

**Kata kunci:** *anatomi, Anova, Kebun Raya Baturraden, keragaman, Piper*



## ***Abstract***

*Piper* is a member of the Piperaceae family which is distributed in tropical areas and can grow from lowland to highland areas reaching an altitude of 2000 meters above sea level. Various species of members of the *Piper* genus are in the collection of the Kebun Raya Baturraden consisting of *Piper aduncum*, *Piper betle*, *Piper crocatum*, *Piper nigrum*, and *Piper sarmentosum* which have different anatomical characters. This research aims to determine the diversity of anatomical characters of leaves and stems in the *Piper* genus species from the collection of the Kebun Raya Baturraden and to determine the differences in anatomical characters in each species. This research uses a survey method for sampling, as well as an embedding method (paraffin), and fresh preparations for making anatomical preparations. Qualitative data were analyzed descriptively to determine the anatomical characters of the leaves and stems of the *Piper* genus. Quantitative data were analyzed using the ANOVA test at a confidence level of 95%, followed by Tukey's further test at  $\alpha = 10\%$  using SPSS. The results showed that the species of the *Piper* genus collection had variations in leaf anatomy in terms of stomata density, trichomata density, abaxial cuticle thickness, adaxial epidermis thickness, stomata type, trichomata type, epidermal cell shape, and the presence of the hypodermis. The differences in leaf anatomical characters of the five species observed were staurocytic stomata, tetracytic stomata, anomocytic stomata, glandular trichomata, trichomata without glands, papilla-shaped epidermal cells, and the absence of hypodermis cells.

***Key Words:*** *anatomy, Anova, diversity, Kebun Raya Baturraden, Piper*

