

## Struktur komunitas lichen di Kampus Universitas Indonesia Depok = Community structure of lichen in campus Universitas Indonesia Depok / Lailatul Mufidah

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### Abstrak

#### <b>ABSTRAK</b><br>

Penelitian mengenai lichen dilakukan di lingkungan kampus Universitas Indonesia, Depok pada Agustus 2015 -- Januari 2016. Tujuan dari penelitian ini adalah untuk menentukan struktur komunitas lichen di Universitas Indonesia, Depok. Tujuh plot 25 x 25 m dibuat di hutan kota dan sembilan garis transek masing-masing sepanjang 50 m dibuat di jalan utama kampus. Lima pohon dipilih pada setiap titik plot dan transek garis sebagai sampel. Sampel diambil dari pohon dengan DBH (Diameter at Breast Height) minimal 20 cm dengan jaring plastik 10 cm x 10 cm yang melekat di utara, selatan, timur, dan barat sisi batang pohon. Jaring plastik dibagi menjadi 100 kotak persegi, kemudian ditempel pada pohon dengan ketinggian yang berbeda (0 cm -- 100 cm dan 100 cm -- 200 cm) dari permukaan tanah. Hasilnya diperoleh tiga famili lichen yang ditemukan di hutan kota yaitu, Leprariaceae, Sarrameanaceae dan Physciaceae dan lima famili lichen di jalan utama kampus yaitu, Sarrameanaceae, Parmeliaceae, Leprariaceae, Graphidaceae dan Physciaceae. Kesamaan famili lichen antara hutan kota dan jalan utama kampus berdasarkan Indeks Sorenson sebesar 75%. Famili Leprariaceae adalah famili yang dominan di hutan kota, sementara Sarrameanaceae adalah famili yang dominan di jalan utama kampus. Keragaman lichen kedua lokasi dikategorikan sedang berdasarkan Indeks Shannon Wiener ( $H'_{1-3}$ ), namun tidak ada yang berbeda secara signifikan di antara kedua tempat tersebut. Famili Leprariaceae memiliki frekuensi kehadiran tertinggi pada pohon inang yaitu pohon daruak (*Microcos tomentosa*) sebesar 7,5%. Berdasarkan uji asosiasi ( $\chi^2$ ) antara tekstur kulit pohon dengan lichen menunjukkan asosiasi positif antara tekstur kulit pohon dengan lichen. Kehadiran famili Sarrameanaceae, Leprariaceae, Graphidaceae dan Physciaceae dipengaruhi oleh tekstur kulit pohon inang sedikit kasar.

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#### <b>ABSTRACT</b><br>

Research on lichens was conducted at the Universitas Indonesia, Depok on August 2015 -- January 2016. The aim of this research is to determine community structure of lichen at the Universitas Indonesia, Depok. Seven plots of 25 x 25 m<sup>2</sup> were made at the urban forest, while nine of 50 m line transect were made at the main road. Five trees of each plots and line transect were sampled. The samples were taken from trees with DBH (Diameter at Breast Height) minimum 20 cm then the grid 10 cm x 10 cm were attached at northern, southern, eastern, and western site of the trunk. The grid was divided into 100 square, then attached on trees in different height (0 cm - 100 cm and 100 cm - 200 cm) from the land surface. The result obtained three family of lichens were found in urban forest, they are Leprariaceae, Sarrameanaceae and Physciaceae. Five family were found at the main road, they were Sarrameanaceae, Parmeliaceae, Leprariaceae, Graphidaceae and Physciaceae. The similarity of lichens family between the urban forest and main road based on Sorenson similarity were high 75%. Family Leprariaceae was the dominant family at the urban forest, while Sarrameanaceae was dominant family at the main road. The diversity of lichen at both sites were categorized

medium based on Shannon Wiener index ( $H' 1-3$ ), however there was not significantly different between those place. Family Leprariaceae was the highest frequency of present on daruak (*Microcos tomentosa*) host tree, that was 7,5%. Based association test ( $\chi^2$ ) between the texture of tree bark with lichen, shows that positive association between the texture of tree bark with lichen, the presence of Sarrameanaceae, Leprariaceae, Graphidaceae and Physciaceae family is influenced by bark slightly rough