

ABSTRACT

Ditya Sri Widiанти. 24020120140155. **Diversity of Leaf Moss Species (*Bryophyta*) in the Klenting Kuning Kemawi Waterfall Area, Sumowono District, Semarang Regency.** Ecology and Biosystematics Laboratory, Department of Biology, Faculty of Science and Mathematics, Diponegoro University, supervised by Lilih Khotimperwati and Sri Utami.

Klenting Kuning Waterfall is located on the slopes of Mount Ungaran, Central Java, which has the potential for a diversity of flora, one of which is moss. Mosses play a major role in ecology and economics. The conversion of forests into tourist areas has the potential to damage plants and disrupt habitats. The presence of leaf moss is influenced by environmental factors where it grows. This study aims to identify the diversity of leaf moss species, describe species characteristics and examine differences in characteristics between species at the research location. Moss sampling was carried out at waterfall tourist locations, mixed forests and pine forests using purposive sampling. For epiphytic moss, 10 host trees were selected at each station with 4 samples measuring 10 cm x 10 cm on each tree. Meanwhile, for terrestrial moss, 10 plots measuring 1 m x 1 m were made at each station on the surface of the soil/rocks. The identification results obtained as many as 26 species of leaf moss belonging to 14 genera, 14 families, one class Bryopsida. The highest diversity of leaf moss was found at the waterfall location with 18 species, while mixed and pine forests each had 10 species. *Leucobryum aduncum* species dominates in the waterfall area with a frequency of 29.41%. Epiphytic leaf mosses are most diverse in the pine forest location (7 species), while terrestrial leaf mosses are most diverse in the waterfall location (14 species). The moss families with the largest number of species are Fissidentaceae and Leucobryaceae, while 16 species were only found at one station. This diversity shows different ecological adaptations in each moss species, in response to environmental variations. The results of environmental factor measurements indicate that the Klenting Kuning Waterfall area provides a suitable habitat for the growth and distribution of various types of moss.

Keywords : *Bryophyta, Diversity of moss types, Epiphytes & Terrestrials, Klenting Kuning Waterfall*