



THE LICHENS DIVERSITY IN TRIANGULATION OF ALAS PURWO NATIONAL PARK, EAST JAVA

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ABSTRACT

The lichen flora of tropical areas is still much underworked Java in general and Alas Purwo in East Java for specially is no exception. Alas Purwo National Park is representative of a typical lowland tropical rain forest ecosystem in Java. . It is famous with peculiar and endemic species of plant include sawo kecil (*Manilkara kauki*) and manggong bamboo (*Gigantochloa manggong*). , beside among the other plants also ketapang (*Terminalia cattapa*), nyamplung (*Calophyllum inophyllum*), kepuh (*Sterculia foetida*), and keben (*Barringtonia asiatica*). Moreover, in lowland tropical rain forest ecosystem have reported the lichens species diversity is very high and may include over 200 species in 1 ha. There is no reported have found concerning the lichens richness in Alas Purwo. Recently preliminary study of Lichens diversity have been done at triangulation Zone Alas Purwo National Park , East Java. The lichens of the study area have not been treated comprehensively. We explored the lichenological characteristics of putative "tropical lowland cloud forest" (LCF) in a lowland area (0–20m.a.s.l.) near Triangulation using macrolichens (corticolous species) as indicator taxa We analyzed lichen diversity on 20 trees in two 0,25 ha plots. In tropical lowland forests, corticolous green algal lichens are abundant and highly diverse. This may be related to adaptation to prevailing microenvironmental conditions including, for example, high precipitation and low light intensities. In the understory of a tropical lowland rain forest in Alas Purwo , we studied the morphology and anatomy of corticolous lichens and microcrystal test. We found that from *Tetrasigma sp* , *Serbella otodans*, *Hemandia feltata* *Barringtonia aciatica* *Pandanaceae* *Manilkara cauci* *Swetinia mahagoni* trees there are 30 species of lichens, dominated by *Dyorigma sp* *Graphis* and *Glyphis* from familia of Graphidaceae and *Dirinaria* *Physcia* *Pyxine* *Ramalina* from familia of Parmeliaceae. The thallus colour was variety from Green-grey, Green-bllue, green, light green, grey, brown, dark green to orange. They have vegetative as well as generative reproduction such as isidia, soralia, soredia, chypellae, histerothecia, perithecia, and apothecia. The lichenic acids contain such as gyrophoric acid, barbatic acid, usnic acid, atranorin, acid, divaricatic acid and *Iecanoric acid*,

Key words: Alas Purwo, lichens and lichenic acid.