ABSTRACT

EDY NASRIADI SAMBAS. Vegetation Classification of Mount Endut, Gunung Halimun Salak National Park, Banten. Under supervision of CECEP KUSMANA, LILIK BUDI PRASETYO, and TUKIRIN PARTOMIHARDJO.

Changing status of Mount Endut from protection forest to become part of Gunung Halimun Salak National Park as well as lack of floristic data quantitatively bringing the importance of research on vegetation classification of this area. Besides, classification of vegetation types is one of important factors for management activities. The research objectives are to classify the vegetation of Mount Endut structurally, physiognomically, and floristically; studying the relationship between floristic vegetation types and abiotic factors; and the alteration of structure and species composition in each floristic vegetation type along environmental gradient at Mount Endut. Sampling was done by systematic sampling with random start. Vegetation alliances were determined by ordination with factor analysis, and vegetation associations were determined with cluster analysis. Vegetation types at physiognomic and structural level were determined based on UNESCO and NVCS vegetation types. U-Mann Whitney statistics was applied to know whether there were abiotic factors differentiation between alliances and between vegetation structures. Chi-square test was used to know the relationship between vegetation association and abiotic factors, also the preference of dominant tree species toward abiotic factors. There are four vegetation types founded at alliance levels, which are Castanopsis acuminatissima-Schima wallichii/Freycinetia javanica (alliance 1); Castanopsis argentea-Dendrocnide stimulans/Schismatoglottis calyptrata (alliance 2); Coffea canephora var. robusta-Quercus lineata/F. javanica (alliance 3); and Paraserianthes falcataria-Coffea canephora var. robusta/Oplismenus compositus (alliance 4). Alliance 1 and alliance 2 are broad leaf mix forest dominated by C. acuminatissima, S. wallichii, and C. argentea. Alliance 3 and alliance 4 are planted forests dominated by C. canephora var. robusta and P. falcataria. Each dominant tree species has a clumped distribution pattern and uniquely preference to abiotic factors. Ten plant species have preferences either to soil or topography factors; three plant species only have preferences on soil factor, and three other ones have preference on topography factors.

Keywords : ecological preferences, Mount Endut, ordination, vegetation alliance, vegetation association, vegetation classification.