Landscape metrics analysis in the proboscis monkey habitat in Kuala Lupak Wildlife Reserve

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Abstract. Landscape Metrics studies of the proboscis monkey (Nasalis larvatus) *habitat landscape are still limited in information to estimate the sustainability of their habitat in wetlands. Analysis of the landscape metrics of the proboscis monkey habitat is needed as important information for the preservation of the proboscis monkey habitat, which is experiencing degradation due to land conversion. This study aims to analyze the landscape metric characteristics of proboscis monkey habitat in wetlands. Analyzing the characteristics of the proboscis monkey habitat, Worldview-3 data is needed to obtain information on land use and land cover by means of a GEOBIA-based classification, then analyzed using Fragstat 4.2 to obtain Class Area (CA), Number of Patch (NP), Edge Density (ED) values, Landscape Shape Index (LSI), Mean Patch Size (MPS), and Mean Shape Index (MSI) as the implementation of Proboscis monkey habitat characteristics. The results showed that the landscape of the Kuala Lupak Wildlife Reserve has an area of 4 952.10 hectares consisting of 3 936 patches with an average area of 67 945 hectares/patch and a standard deviation of 409.27. The total edge has an area of 1 191 712.54 meters and a density of 240 648 hectares. The Mean Shape Index has a value of 10.67. The characteristics of the proboscis monkey habitat in the Kuala Lupak Wildlife Reserve illustrate the occurrence of fragmentation of the proboscis monkey's habitat and is not ideal for the protection of proboscis monkeys, because it can lead to isolated pockets of habitat.*

INTRODUCTION

Proboscis monkey (*Nasalis larvatus*) is an important endemic species for South Kalimantan Province because it is a mascot primate (Muhaimin *et al.*, 2017). The proboscis monkey was chosen as the mascot of South Kalimantan Province because this animal has different characteristics from other primates (Alikodra *et al.*, 2015). Proboscis monkeys are the Colobinae subfamily with the largest size, and proboscis monkeys are sexual dimorphism. They differ in size from males and females (Kern, 1964; Bennett and Sebastian, 1988; Yeager, 1989). Male proboscis monkeys have a body size from body length to head of 73-76 cm (average 75.5 cm) and weight of male proboscis monkeys ±20 kg, while female proboscis monkeys have a body size of 61-64 cm (average 62 cm) and have half the body weight of male proboscis monkeys (Napier and Napier, 1985;

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