PENGARUH AKTIVITAS PENDAKIAN TERHADAP KEBERADAAN REKREKAN (*Presbytis fredericae*) DI GUNUNG MERBABU

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Intisari

Rekrekan (*Presbytis fredericae*) adalah primata endemik Jawa yang berstatus Vulnerable menurut IUCN akibat degradasi habitat, perburuan, dan tekanan antropogenik. Peningkatan wisata pendakian di Taman Nasional Gunung Merbabu (TNGMb) berpotensi mengancam keberlangsungan spesies ini. Penelitian ini bertujuan mengevaluasi pengaruh aktivitas pendakian terhadap populasi dan habitat rekrekan, sekaligus memberikan rekomendasi konservasi. Metode penelitian meliputi pengamatan langsung, pemasangan *camera trap*, dan pengumpulan data lingkungan di jalur Selo dan Pakis dengan titik pengamatan sistematis tiap 350 m. Estimasi populasi dianalisis menggunakan penghitungan langsung dan pendekatan *occupancy modeling*. Struktur vegetasi diamati dengan *nested sampling*, sedangkan aktivitas pendakian dikaji melalui kuisioner pada 100 responden. Analisis kesesuaian habitat dilakukan dengan Ecological Niche Factor Analysis (ENFA), sementara hubungan faktor lingkungan, jalur pendakian, dan keberadaan rekrekan diuji dengan Generalized Linear Model (GLM). Hasil occupancy menunjukkan estimasi populasi 10–34 individu. ENFA mengungkapkan bahwa habitat optimal terkait dengan tutupan vegetasi yang baik dan lokasi yang lebih jauh dari jalur pendakian, dengan nilai HSI 40–60 serta Boyce Index 0,72 ± 0,3045 yang merefleksikan reliabilitas model cukup baik. Model GLM memperlihatkan asosiasi positif terhadap tutupan vertikal daun 70-100 cm (0,05776±0,0171) dan intensitas gangguan sedang (1,47292±0,5293), sementara asosiasi negatif pada tutupan vertikal daun 100-200 cm (-0,0464±0,01945) dan intensitas rendah berdasarkan nilai *intercept* (-3,57609±0,7245). Temuan ini menegaskan pentingnya struktur kanopi vertikal dan rendahnya gangguan manusia dalam menjaga kelestarian rekrekan. Strategi konservasi disarankan berfokus pada pengendalian intensitas pendakian dan perlindungan kualitas habitat.

Kata kunci: Rekrekan, Taman Nasional Gunung Merbabu, ENFA, GLM

INFLUENCE OF HIKE ACTIVITY ON THE PRESENCE OF JAVAN FUSCOUS LEAF MONKEY (*Presbytis fredericae*) ON MERBABU MOUNTAINS

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Abstract

The Javan Fuscous Leaf Monkey (*Presbytis fredericae*), an endemic primate of Java, is listed as Vulnerable by the IUCN due to population decline from habitat degradation, hunting, and anthropogenic pressures. Hiking tourism in Mount Merbabu National Park (TNGMb) represents a growing threat to its survival. This study evaluates the impact of hiking activities on *P. fredericae* populations and habitat, and provides conservation recommendations. Methods included direct observations, camera traps, and environmental data collection along two main hiking routes (Selo and Pakis), with systematic sampling at 350 m intervals. Population estimates were analyzed using the direct count and occupancy-based modeling. Vegetation structure was assessed with nested sampling, while hiking activity was documented through 100 questionnaires. Habitat suitability was modeled using Ecological Niche Factor Analysis (ENFA), and relationships between environmental variables, hiking, and monkey presence were tested with Generalized Linear Models (GLM). Occupancy-based analysis estimated 10–34 individuals in the survey area. ENFA revealed that optimal habitats were linked to preserved vegetation cover and locations farther from hiking trails, with Habitat Suitability Index (HSI) values of 40–60 and a Boyce Index of 0.72 ± 0.3045, indicating moderate model reliability. The GLM model revealed a positive association with vertical leaf cover at 70–100 cm (0.05776 ± 0.0171) and moderate disturbance intensity (1.47292 ± 0.5293), while negative associations were observed with vertical leaf cover at 100–200 cm (-0.0464 ± 0.01945) and low disturbance intensity based on the intercept value (-3.57609 ± 0.7245). These findings highlight the importance of vertical canopy structure and minimal human disturbance in maintaining the sustainability of rekrekan. Conservation strategies are therefore recommended to focus on regulating hiking intensity and preserving habitat quality.

Key words: Javan Fuscous Leaf Monkey, Mount Merbabu National Park, ENFA, GLM