

**POPULASI SPESIES KATAK POHON (FAMILIA: RHACOPHORIDAE)
PADA DUA KANTUNG HABITAT DI HUTAN TROPIS SEKUNDER
GUNUNG MERAPI, DAERAH ISTIMEWA YOGYAKARTA**

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INTISARI

Usikan manusia dan kondisi fisik habitat yang berbeda dapat memengaruhi besar populasi katak pohon. Populasi spesies katak pohon pada tipe habitat yang berbeda di lereng selatan Gunung Merapi belum diketahui. Penelitian ini mempelajari populasi spesies katak pohon di lereng selatan Gunung Merapi pada dua habitat yang memiliki usikan manusia dan kondisi fisik serta biotik habitat yang berbeda. Tlogo Muncar merupakan habitat katak pohon yang sering dikunjungi manusia dan memiliki sumber-sumber air yang permanen, sedangkan hutan lindung KHDTK Kaliurang jarang dikunjungi manusia dan memiliki sumber-sumber air yang bersifat *ephemeral*. Metode *point count distance sampling* digunakan untuk mengestimasi densitas katak pohon di kedua habitat. Vegetasi lantai yang berada di masing-masing titik sampling diambil melalui metode plot berukuran plot 10x10 m. Parameter fisik yang diukur adalah temperatur udara, kelembapan udara, intensitas cahaya, dan jarak titik sampling terhadap sumber air. Data jarak katak pohon dianalisis dengan aplikasi *Distance 7.5 Release 2*. Nilai rerata densitas vegetasi di dua habitat dibandingkan, sedangkan faktor fisik dianalisis dengan uji korelasi *Pearson* yang dilakukan di *SPSS Statistics 25*. Hasil penelitian menunjukkan bahwa hanya dijumpai dua spesies katak pohon, yaitu *Rhacophorus reinwardtii* dan *Philautus aurifasciatus*. *Rhacophorus reinwardtii* hanya ditemukan satu individu di Tlogo Muncar, sedangkan populasi *P. aurifasciatus* di Tlogo Muncar lebih besar daripada KHDTK Kaliurang. Perbedaan komposisi vegetasi yang menjadi mikrohabitat *P. aurifasciatus*, serta kekeringan yang terjadi di KHDTK Kaliurang diduga menyebabkan perbedaan ukuran populasi di kedua habitat. Kekeringan di habitat meningkatkan resiko desikasi serta keterbatasan sumber pakan.

Kata kunci: Amfibi, *direct development*, estimasi populasi, gangguan habitat.

TREE FROG (FAMILY: RHACOPHORIDAE) POPULATIONS IN TWO HABITAT PATCHES OF SECONDARY TROPICAL FORESTS IN MOUNT MERAPI, SPECIAL REGION OF YOGYAKARTA

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ABSTRACT

Human disturbance and physical habitat conditions can influence the population size of tree frogs. Tree frogs' population size in different habitat types at the southern slope of Mount Merapi remain unknown. This research investigates the population size of the tree frog community at the southern slope of Mount Merapi in two different habitat types. Tlogo Muncar is a tree frog habitat which is frequently visited by humans and has permanent water source, while KHDTK Kaliurang forest is rarely visited by humans and has ephemeral water source. In this research, we conducted point count distance sampling to estimate tree frog density in both habitats. The ground vegetation at each sampling point was sampled by using 10x10 m plots. The physical parameters measured are air temperature, air humidity, light intensity, and the distance of sampling points to the nearest water source. Tree frogs distance data were analyzed using Distance 7.5 Release 2 software. Vegetation data in two habitats were compared, while physical factors were analyzed using Pearson correlation test conducted using SPSS Statistics 25. The research findings indicate the presence of two tree frogs species, *Rhacophorus reinwardtii* and *Philautus aurifasciatus*. *Rhacophorus reinwardtii* was found as a single individual in Tlogo Muncar, while the population of *P. aurifasciatus* in Tlogo Muncar was larger than in KHDTK Kaliurang due to differences in floor vegetation composition and drought in KHDTK Kaliurang. Drought in a habitat will increase the risk of desiccation and limit the food source.

Keywords: Amphibians, direct development, habitat disturbance, population size estimation.