

DETEKSI KEHADIRAN SPESIES BURUNG FAMILI COLUMBIDAE PADA TIGA TIPE HABITAT DI KABUPATEN MEMPAWAH, KALIMANTAN BARAT MENGGUNAKAN *PASSIVE ACOUSTIC MONITORING*

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INTISARI

Columbidae merupakan agen penting dalam membantu regenerasi kawasan dan berperan dalam pembangunan habitat berhutan. Penurunan luas areal gambut akibat alih fungsi lahan hutan akan berdampak pada kehadiran Columbidae. Penelitian ini bertujuan untuk mengetahui pengaruh faktor biotik dan abiotik terhadap deteksi kehadiran famili Columbidae pada tiga tipe habitat di Kabupaten Mempawah, Kalimantan Barat menggunakan *Passive Acoustic Monitoring*.

Penelitian ini dilakukan dengan teknik *passive acoustic monitoring* untuk merekam suara. Alat perekam dipasang pada tiga tipe habitat berbeda, yaitu perkebunan sawit, hutan sekunder dan semak belukar. Alat perekam dipasang pada awal dan akhir transek pengamatan, dengan total panjang transek sejauh 1 km. Analisis vokalisasi dilakukan dengan menggunakan *software* Kaleidoscope Pro.

Hasil penelitian ini menemukan sebanyak 34.477 deteksi kehadiran vokal dari lima spesies Columbidae yakni *Streptopelia chinensis*, *Geopelia striata*, *Treron vernans*, *Treron olax*, dan *Macropygia ruficeps*. Kelima spesies tersebut memiliki nilai tumpang tindih (*overlap*) yang menggambarkan kemiripan waktu aktif vokalisasi. Nilai *overlap* tertinggi dimiliki *Geopelia striata* dan *Macropygia ruficeps* (0,897). Kehadiran Columbidae berdasarkan deteksi vokal diduga dipengaruhi oleh faktor biotik dan abiotik. Hasil uji regresi model GLM menunjukkan variabel kerapatan sapihan dan rata-rata dbh berpengaruh signifikan terhadap kehadiran *Streptopelia chinensis*.

Kata kunci: columbidae, vokalisasi, deteksi, bioakustik, habitat

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DETECTION OF COLUMBIDAE BIRD SPECIES PRESENCE IN THREE HABITAT TYPES IN MEMPAWAH DISTRICT, WEST KALIMANTAN USING PASSIVE ACOUSTIC MONITORING

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ABSTRACT

Columbidae are important agents in helping regenerate areas and play a role in the development of forested habitats. The decrease in peat area due to forest land conversion will have an impact on the presence of Columbidae. This study aims to determine the effect of biotic and abiotic factors on the detection of the presence of the Columbidae family in three habitat types in Mempawah Regency, West Kalimantan, using Passive Acoustic Monitoring.

This study was conducted using passive acoustic monitoring to record sounds. Recorders were installed in three different habitat types, namely oil palm plantations, secondary forests, and shrubs. The recording device was installed at the beginning and end of the observation transect, with a total transect length of 1 km. Vocalization analysis was conducted using Kaleidoscope Pro software.

The results of this study found a total of 34,477 vocal presence detections from five Columbidae species, including *Streptopelia chinensis*, *Geopelia striata*, *Treron vernans*, *Treron olax*, and *Macropygia ruficeps*. The five species have overlap values that illustrate the similarity of active vocalization times. *Geopelia striata* and *Macropygia ruficeps* have the highest overlap value (0.897). Columbidae presence based on vocal detection is thought to be influenced by biotic and abiotic factors. The results of the GLM model regression test showed that the variables of weaning density and average dbh had a significant effect on the presence of *Streptopelia chinensis*.

Keywords: columbidae, vokalization, detection, bioacoustic, habitat

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