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**Perburuan Dan Vokalisasi Punai Penganten (Treron griseicauda) Di Hutan Kemuning, Kabupaten Temanggung**
Raden Putro Arumbono Sasetya, Dr. rer. silv. Muhammad Ali Imron, S.Hut., M.Sc.
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# PERBURUAN DAN VOKALISASI PUNAI PENGANTEN *(Treron griseicauda)* DI HUTAN KEMUNING, KABUPATEN TEMANGGUNG

Raden Putro Arumbono Sasetya[1], Muhammad Ali Imron[2]

## INTISARI

Gangguan manusia, termasuk perburuan dipersepsikan burung sebagai risiko predasi yang dapat memicu perubahan perilaku dan vokalisasi. Punai penganten (*Treron griseicauda*) merupakan anggota famili columbidae yang berperan dalam pemulihan dan regenerasi kawasan, sekaligus menjadi sasaran perburuan di Hutan Kemuning. Penelitian ini bertujuan mengidentifikasi aktivitas perburuan, tren populasi, karakteristik vokalisasi, serta respon vokalisasi punai penganten terhadap perburuan.

Data aktivitas perburuan dikumpulkan melalui studi literatur, wawancara mendalam terhadap enam informan yang dipilih secara *snowball sampling*, dan observasi lapangan, kemudian dianalisis secara deskriptif kualitatif dengan pendekatan triangulasi. Data populasi diperoleh melalui *point count* pada 92 titik beradius 50m periode 2016–2026 dan diuji menggunakan *Mann-Kendall* serta *Sen's slope estimator*. Data akustik dikumpulkan menggunakan metode *passive acoustic monitoring* (PAM) dengan tujuh unit *SwiftOne* (24jam 5 hari efektif) berjarak 800m. Data rekaman dianotasi dengan *Raven Pro*, lalu dianalisis menggunakan uji *Mann-Whitney U*, *Kernel Density Estimation*, uji *Kruskal-Wallis*, dan uji lanjut *Dunn* berkoreksi *Holm*.

Perburuan berlangsung sejak 1985 dan kini dilakukan sebagian kecil warga dengan motif hobi (100%) dan ekonomi (66,67%) dengan teknik *mulut*, *mbedil*, dan *ngunduh*. Populasi punai penganten menunjukkan penurunan signifikan ($\tau=-0{,}55$; $p<0{,}001$) dengan laju −58,5 individu per tahun, dari 1.484 individu (2016) menjadi 116 individu (2026). Sebanyak 181 deteksi vokal berupa *call* (90,1%) dan *song* (9,9%) dengan pola aktivitas bimodal dan sepenuhnya diurnal. Analisis menunjukan frekuensi bawah, atas, dan maksimum meningkat nyata pada kondisi *overlap* dan *pasca*, diindikasikan respon vokal untuk mengurangi tumpang tindih vokalnya dengan kebisingan antropogenik. Dengan demikian, perlu adanya pengendalian perburuan untuk menjaga keberlangsungan punai penganten.

Kata Kunci: Punai Penganten, Aktivitas Perburuan, Respon Vokalisasi, Passive Acoustic Monitoring, Hutan Kemuning

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# *HUNTING AND VOCALIZATION OF THE GREY-CHEEKED GREEN PIGEON (Treron griseicauda) IN KEMUNING FOREST, TEMANGGUNG REGENCY*

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## *ABSTRACT*

*Human disturbance, including hunting, is perceived by birds as a predation risk that can trigger behavioral and vocal changes. The Grey-cheeked Green-Pigeon (Treron griseicauda), a member of the family columbidae, plays a vital role in ecosystem recovery and forest regeneration, while simultaneously serving as a target for hunting in Kemuning Forest. This study aimed to identify hunting activities, population trends, vocalization characteristics, and the vocal responses of the Grey-cheeked Green-Pigeon to hunting pressure.*

*Data on hunting activities were collected through literature reviews, in-depth interviews with six informants selected via snowball sampling, and field observations, followed by qualitative descriptive analysis using a triangulation approach. Population data were obtained through point counts at 92 sampling points with a 50 m radius over the 2016–2026 period and evaluated using the Mann-Kendall test and Sen's slope estimator. Acoustic data were gathered using Passive Acoustic Monitoring (PAM) with seven SwiftOne units (deployed 24 hours daily over 5 effective days) spaced 800 m apart. Audio recordings were annotated using Raven Pro and analyzed via the Mann-Whitney U test, Kernel Density Estimation, Kruskal-Wallis test, and Dunn's post-hoc test with Holm correction.*

*Hunting has persisted since 1985 and is currently conducted by a small subset of local residents driven by recreational (100%) and economic (66.67%) motives, employing vocal mimicry (mulut), air rifles (mbedil), and trapping/harvesting (ngunduh). The population of the Grey-cheeked Green-Pigeon demonstrated a significant decline* ($\tau$=−0,55; $p$<0,001) *at a rate of -58.5 individuals per year, dropping from 1,484 individuals (2016) to 116 individuals (2026). A total of 181 vocal detections were identified, comprising calls (90.1%) and songs (9.9%), exhibiting a strictly diurnal and bimodal activity pattern. Statistical analysis revealed that low, high, and peak frequencies increased significantly during overlap and post-overlap conditions, indicating a vocal adjustment to reduce acoustic masking from anthropogenic noise. Consequently, hunting management and regulation are urgently required to ensure the long-term sustainability of the Grey-cheeked Green-Pigeon.*

*Keywords: Grey-cheeked Green-Pigeon, Hunting Activity, Vocal Response, Passive Acoustic Monitoring, Kemuning Forest*

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