



KOMUNITAS BURUNG PADA BERBAGAI TIPE RUANG TERBUKA HIJAU DI KOTA MAGELANG DAN SEKITARNYA

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INTISARI

Urbanisasi menjadi salah satu dampak yang muncul akibat pertumbuhan populasi manusia yang terus meningkat. Lanskap alami terdampak akan mengalami fragmentasi, kehilangan, dan degradasi habitat secara masif yang meningkatkan laju seleksi alam dan kepunahan. Ruang terbuka hijau (RTH) diketahui dapat menjadi solusi nyata dalam upaya konservasi keanekaragaman hayati di lanskap urban. Perbedaan tipe dan fungsi RTH dapat berpengaruh terhadap pemilihan habitat oleh burung. Penelitian ini bertujuan untuk mengidentifikasi komunitas spesies burung serta mendeskripsikan pengaruh faktor lingkungan terhadap keanekaragaman spesies burung pada berbagai tipe RTH di Kota dan Kabupaten Magelang.

Data keanekaragaman burung dikumpulkan menggunakan metode *point count*. Data mengenai struktur dan komposisi vegetasi, serta variabel biotik dan abiotik lingkungan, diperoleh melalui *nested plot* dan *protocol sampling*. Pengambilan data dilakukan pada tipe RTH jalur hijau, kebun, pertanian, pemakaman, dan taman. Keanekaragaman spesies burung pada tiap komunitas dianalisis menggunakan indeks diversitas Shannon-Wiener. Visualisasi respons komunitas burung terhadap variabel lingkungan disajikan melalui *Canonical Correspondence Analysis* (CCA). *Generalized Linear Model* (GLM) digunakan untuk analisis faktor lingkungan terhadap keanekaragaman jenis burung.

Terdapat 51 spesies dan 6447 individu dijumpai selama penelitian. Spesies dari *feeding guild insectivore* memiliki kekayaan jenis tertinggi, sedangkan kelimpahan individu tertinggi berasal dari *feeding guild granivore*. Kebun menjadi tipe RTH dengan kekayaan jenis tertinggi, diikuti oleh pertanian. Jumlah jenis semai dan pancang berkorelasi positif terhadap keanekaragaman jenis burung. Jumlah kendaraan melintas menyebabkan polusi suara dan udara sedangkan tutupan tumbuhan bawah yang rapat dan jumlah pancang yang tinggi mengartikan bahwa habitat masih berusia muda dan belum dapat memberikan perlindungan yang maksimal sehingga berkorelasi negatif terhadap keanekaragaman jenis burung. RTH yang baik perlu memenuhi standar sesuai regulasi yang berlaku. Desain RTH perlu dimodifikasi dengan memperhatikan kehadiran burung sebagai salah satu aspek pengelolaan.

Kata Kunci : Struktur Komunitas Burung, Urbanisasi, *Feeding Guild*, *Generalized Linear Model*, Biodiversitas Urban

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BIRD COMMUNITIES IN VARIOUS TYPE OF OPEN GREEN SPACE IN MAGELANG CITY AND ITS SURROUNDINGS

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ABSTRACT

Urbanization is one of the impacts of the increasing human population. Affected natural landscapes will experience massive habitat fragmentation, loss and degradation, which increases the rate of natural selection and extinction. Green open space (RTH) is known to be a real solution in biodiversity conservation efforts in urban landscapes. Differences in the type and function of green spaces can affect habitat selection by birds. This study aims to identify bird species communities and describe the influence of environmental factors on bird species diversity in various types of green spaces in Magelang City and District.

Bird diversity data were collected using the point count method. Data on vegetation structure and composition, as well as biotic and abiotic environmental variables, were obtained through nested plots and protocol sampling. Data were collected in green belt, garden, farm, cemetery and park. Bird species diversity in each community was analyzed using the Shannon-Wiener diversity index. Visualization of bird community responses to environmental variables was presented through Canonical Correspondence Analysis (CCA). Generalized Linear Model (GLM) was used for analysis of environmental factors on bird species diversity.

There were 51 species and 6447 individuals encountered during the study. Species from the insectivore feeding guild had the highest species richness, while the highest individual abundance came from the granivore feeding guild. Gardens were the type of green space with the highest species richness, followed by agriculture. The number of seedling and sapling species was positively correlated to bird species diversity. The count of vehicles causes noise and air pollution while the dense understorey cover and high number of saplings means that the habitat is still young and cannot provide maximum protection, thus negatively correlating with bird species diversity. A good green space needs to meet the standards according to applicable regulations. The design of the green space needs to be modified by considering the presence of birds as one aspect of management

Keyword : Bird Community Structure, Urbanization, Feeding Guild, Generalized Linear Model, Urban Biodiversity

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