

KEANEKARAGAMAN HERPETOFAUNA PADA BERBAGAI STRUKTUR DAN KOMPOSISI VEGETASI DI KAWASAN RIPARIAN DAERAH ISTIMEWA YOGYAKARTA

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Intisari

Kawasan riparian berfungsi sebagai habitat satwa salah satunya herpetofauna. Peningkatan jumlah penduduk dan penggunaan lahan oleh masyarakat di sekitar kawasan riparian berdampak pada berkurangnya vegetasi dan bebatuan di kawasan riparian. Berkurangnya vegetasi dan bebatuan di kawasan riparian merupakan penyebab utama terancamnya habitat herpetofauna. Penelitian ini bertujuan untuk mengidentifikasi keanekaragaman herpetofauna dan pengaruh struktur dan komposisi vegetasi maupun variabel lingkungan di kawasan riparian perkotaan Daerah Istimewa Yogyakarta.

Pengambilan data keanekaragaman jenis herpetofauna menggunakan metode *quadrat sampling* yang dikombinasikan dengan *Visual Encounter Survey* (VES) yang diletakkan secara sistematis di setiap kawasan. Pengambilan data faktor lingkungan menggunakan metode *nested sampling* dan *protocol sampling*. Keanekaragaman jenis herpetofauna dianalisis menggunakan indeks keragaman *Shannon-Wiener*. Pengaruh variabel lingkungan terhadap keanekaragaman herpetofauna dianalisis menggunakan *Generalized Linear Model*. Analisis kluster dengan metode *Bray-Curtis Similarity* digunakan untuk melihat pengelompokan data keanekaragaman jenis herpetofauna berdasarkan karakteristik kondisi habitat tertentu.

Berdasarkan pengamatan di lapangan, didapatkan 155 individu dari 12 jenis herpetofauna yang ditemukan. Indeks keanekaragaman dan jumlah kekayaan jenis herpetofauna terbanyak ditemukan di Sungai Opak. Variabel lingkungan seperti tutupan vegetasi dan jarak dari jalan berpengaruh positif terhadap keanekaragaman jenis herpetofauna. Oleh karena itu, diperlukan kegiatan monitoring secara berkala di kawasan riparian untuk menjaga kondisi tutupan vegetasi sehingga mampu mendukung keberadaan herpetofauna. Selain itu, perencanaan kawasan riparian yang baik diharapkan dapat memenuhi kebutuhan mikrohabitat herpetofauna.

Kata kunci: Biodiversitas, Herpetofauna, Riparian, Daerah Istimewa Yogyakarta

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HERPETOFAUNA DIVERSITY IN VARIOUS VEGETATION STRUCTURES AND COMPOSITIONS ALONG RIPARIAN AREAS DAERAH ISTIMEWA YOGYAKARTA

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Abstract

Riparian areas functions as habitat for herpetofauna. The increase of population and land use by human around the riparian area has an impact on the reduction of vegetation and rocks along the riparian areas. The reduction of vegetation and rocks along riparian areas is the main cause of herpetofauna habitat threats. This research aims to identify herpetofauna diversity and the influence of vegetation structure and composition also other environmental variables along riparian areas in Daerah Istimewa Yogyakarta.

The quadrat sampling method with a combination of Visual Encounter Survey (VES) placed in systematic sampling was carried out to survey the diversity of herpetofauna. Environmental factors were collected using nested sampling and protocol sampling. The diversity of herpetofauna was analysed using the Shannon-Wiener diversity index. The influence of environmental variables on herpetofauna diversity was analysed using the Generalized Linear Model. Cluster analysis Bray-Curtis Similarity is used to see the grouping of herpetofauna diversity based on the certain characteristics of habitat.

Based on field observations, 155 individuals of 12 species of herpetofauna were found. The highest diversity index and number of herpetofauna species richness were found in the Opak River. Environmental variables such as vegetation cover and distance from the road have a positive effect on herpetofauna species diversity. Therefore, regular monitoring activities are needed in riparian areas to maintain the condition of vegetation cover so that it can support the existence of herpetofauna. In addition, good riparian area planning is expected to fulfill the microhabitat needs of herpetofauna.

Keywords: Biodiversity, Herpetofauna, Riparian, Daerah Istimewa Yogyakarta

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