



VEGETASI RIPARIAN DI HULU HINGGA HILIR SUNGAI WINONGO, YOGYAKARTA

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INTISARI

Vegetasi riparian memiliki peran yang sangat penting dalam menentukan struktur dan fungsi ekosistem sungai. Hilangnya vegetasi riparian karena penggunaan lahan di sekitarnya akan mempengaruhi kualitas sungai. Sungai Winongo merupakan salah satu sungai di Yogyakarta yang telah banyak mengalami perubahan seiring berkembangnya sektor pertanian, industri, dan pemukiman penduduk. Oleh karena itu penelitian ini bertujuan untuk mempelajari komposisi, distribusi, dan kemelimpahan vegetasi riparian di hulu, tengah, dan hilir Sungai Winongo dan pengaruhnya terhadap kualitas air sungai. Metode yang digunakan adalah metode kuadrat plot dengan ukuran 1mx1m. Pada hulu sungai Winongo ditemukan 4 *growth form*: seedling, semak, rumput, dan herba, jumlah spesies sebanyak 29, dan spesies dominan *Panicum malabaricum* dengan densitas 8,6 ind/m² dan nilai penting 33,3%. Ditemukan 3 *growth form* di bagian tengah yaitu seedling, herba, dan rumput dengan jumlah spesies sebanyak 14 dan spesies dominan *Imperata cylindrica* dengan densitas 2,9 ind/m² dan nilai penting 31,9%. Sedangkan di hilir ditemukan 4 *growth form*: seedling, semak, herba, dan rumput, jumlah spesies sebanyak 15 spesies dan spesies paling dominan *Panicum* sp. dengan densitas 6,5 ind/m² dan nilai penting 52,8%. Indeks diversitas spesies (Shannon Wiener) di hulu, tengah, dan hilir berturut-turut 2,57; 2,29; 1,96. Indeks kemerataan spesies 0,76; 0,87; 0,73 dan indeks kekayaan spesies 4,74; 2,52; 2,67. Penurunan densitas vegetasi riparian dari hulu ke hilir mempengaruhi kualitas air sungai. Densitas vegetasi yang menurun dari hulu ke hilir diduga berkorelasi dengan peningkatan kandungan fosfat dan deterjen di dalam air sungai.

Kata kunci: vegetasi riparian, Sungai Winongo, penggunaan lahan, kualitas sungai



RIPARIAN VEGETATION IN UPSTREAM TO DOWNSTREAM WINONGO RIVER, YOGYAKARTA

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ABSTRACT

Riparian vegetation has a very important role to determine the structure and function of the river ecosystem. Degradation of riparian vegetation due to the land use around will affect the quality of the river. Winongo river is one of the rivers in Yogyakarta, which has undergone many changes over the development of the agricultural sector, industrial, and residential areas. Therefore, this research aims to study the composition, distribution, and abundance of riparian vegetation in the upstream, midstream, and downstream Winongo River and its influence on the river quality. The method is squaring plot with size 1mx1m. At the upstream Winongo found 4 growthform: seedlings, shrubs, grasses, and herbs, the number of species as many as 29, and the most dominant species is *Panicum malabaricum* with a density of 8.6 ind/m² and the importance are 33.3%. At the midstream found 3 growth form: seedlings, herbs and grasses, the number as many as 14 species and the most dominant species is *Imperata cylindrica* with a density of 2.9 ind/m² and the importance are 31.9%. Meanwhile, at downstream found 4 growth form: seedlings, shrubs, herbs and grasses, the number of species as many as 15 species and the most dominant species is *Panicum* sp. with a density of 6.5 ind/m² and the importance are 52.8%. The species diversity index from upstream to downstream is 2,568; 2,289; 1,962. Species evenness index is 0,763; 0,868; 0,725 and species richness index is 4,741; 2,520; 2,668. Degradation of riparian vegetation density affect the river quality. Vegetation density decreases from upstream to downstream allegedly correlated with increased content of phosphate and detergent in the water of the river.

Keywords: riparian vegetation, Winongo river, land use, river quality