INTISARI

Kemelimpahan Larva Hydropsychidae sebagai Bioindikator Kualitas Perairan Sungai Code Daerah Istimewa Yogyakarta

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Hydropsychidae terdistribusi secara luas di perairan dan memiliki peranan penting dalam ekosistem sungai, sehingga umum dijadikan indikator biologis untuk pemantauan kualitas perairan. Aliran Sungai Code melewati kawasan urbanisasi dengan padatnya penduduk di sekitar aliran Sungai Code. Hal tersebut memicu masukan limbah antropogenik ke dalam badan air. Oleh karena itu tujuan dari penelitian ini adalah untuk meninjau kondisi perairan Sungai Code berdasarkan parameter fisikokimia dan pengaruhnya terhadap kemelimpahan larva Hydropsychidae. Penelitian dilakukan pada bulan Juli 2022 hingga bulan November 2022, terdapat 5 lokasi penelitian dengan 2 kali pengulangan pencuplikan setiap stasiun penelitian. Pencuplikan sampel larva Hydropsychidae digunakan alat *surber sampler*. Analisis data meliputi kemelimpahan dan analisis korelasi regresi. Total kemelimpahan larva Hydropsychidae yang tercuplik selama 5 bulan penelitian sebesar 267 ind/0,27 m^3. Berdasarkan stasiun penelitian kemelimpahan larva tertinggi di Stasiun V 172 ind/0,27m^3. Sementara itu berdasarkan bulan pencuplikan, kemelimpahan larva Hydropsychidae tertinggi di bulan Juli yaitu sebesar 113 ind/0,27m^3 dan terendah di bulan November sebesar 21 ind/0,27m^3. Pengkayaan nutrien pada badan air Sungai Code dan curah hujan mempengaruhi kondisi parameter fisikokimia dan kemelimpahan larva Hydropsychidae. Berdasarkan analisis korelasi regresi, parameter fisikokimia yang memiliki pengaruh kuat terhadap kemelimpahan larva Hydropsychidae adalah pH yang berkorelasi negatif.

Kata kunci: Curah hujan, Larva Hydropsychidae, Limbah, Nutrien

ABSTRACT

Abundance of Hydropsychidae Larvae as Bioindicators of Water Quality in Code Stream, Yogyakarta Special Region

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Hydropsychidae are widely distributed in waters and play an important role in river ecosystems, so they are commonly used as biological indicators for water quality monitoring. The Code Stream flows through an urbanized area with a dense population around the Code Stream. This triggers the input of anthropogenic waste into the water body. Therefore, the purpose of this study was to assess the condition of Code River waters based on the abundance of Hydropsychidae larvae and its influence on physicochemical parameters in Code Stream. The research was conducted from July 2022 to November 2022, there were 5 research locations with 2 repetitions of sampling at each research station. Sampling of Hydropsychidae larvae used a surber sampler tool. Data analysis included abundance and regression correlation analysis. The total abundance of Hydropsychidae larvae collected during the 5 months of the study was 267 ind/0.27 m^3. Based on the research station, the highest larval abundance was 172 ind/0.27 m^3 in Station V. Meanwhile, based on the month of sampling, the abundance of Hydropsychidae larvae was highest in July at 113 ind/0.27m^3 and lowest in November at 21 ind/0.27m^3. Nutrient enrichment and rainfall intensity influenced the condition of physicochemical parameters and larval abundance. Based on regression correlation analysis, the physicochemical parameter that has a strong influence on the abundance of Hydropsychidae larvae is pH, which is negatively correlated.

Keywords: Hydropsychidae larvae, Rainfall, Sewage, Nutrients