KEANEKARAGAMAN SIPUT AIR TAWAR ANGGOTA FAMILI THIARIDAE (MOLLUSCA:GASTROPODA) DI DAS OPAK HULU, DAERAH ISTIMEWA YOGYAKARTA

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INTISARI

Daerah Aliran Sungai (DAS) Opak di Daerah Istimewa Yogyakarta mempunyai Sungai Opak sebagai sungai utama dari Gunung Merapi melalui Kabupaten Sleman dan Bantul. Ekosistem sungai berfungsi sebagai habitat berbagai organisme, termasuk anggota gastropoda famili Thiaridae, dan berfungsi sebagai indikator kualitas lingkungan perairan. Penelitian ini bertujuan untuk menganalisis distribusi dan kelimpahan anggota famili Thiaridae di DAS Opak Hulu, serta mempelajari pengaruh faktor lingkungan terhadap distribusi dan kelimpahannya. Faktor lingkungan yang diamati meliputi suhu air, oksigen terlarut, alkalinitas, pH, laju aliran, dan kadar nutrisi. Penelitian dilakukan di lima stasiun penelitian yaitu Sungai Terasi, Sungai Denggung, Sungai Opak, Sungai Kuning, dan Sungai Oya, dan penentuan lokasi pengambilan sampel menggunakan metode *purposive random*. Pengambilan sampel gastropoda dilakukan sebanyak tiga kali pada setiap titik sampling berbasis dengan metode jarak sebagai titik proxy. Data yang dianalisis meliputi cacah spesies, densitas, dan frekuensi. Data dianalisis dengan Indeks Keanekaragaman Shannon-Wiener, Keseragaman, dan Dominansi. Hasil penelitian menunjukkan bahwa 6 dari 12 spesies yang ditemukan adalah anggota Famili Thiaridae. Nilai Keanekaragaman Gastropoda anggota Famili Thiaridae adalah *H'* = 1,19 yang termasuk keanekaragaman sedang. Serta, Parameter fisik kimia yang berpengaruh meliputi kecepatan arus, DO, dan intensitas cahaya.

KATA KUNCI: ekosistem sungai, faktor lingkungan, makrobentos, oksigen terlarut, Sungai Opak

DIVERSITY OF FRESHWATER SNAILS MEMBERS OF THE THIARIDAE FAMILY (MOLLUSCA:GASTROPODS) IN THE OPAK UPSTREAM WATERSHED, SPECIAL REGION OF YOGYAKARTA

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ABSTRACT

The Opak Watershed (DAS) in the Special Region of Yogyakarta has the Opak River as its main river, flowing from Mount Merapi through the Sleman and Bantul regencies. The river ecosystem serves as a habitat for various organisms, including members of the Thiaridae family gastropods, and functions as an indicator of water quality. This study aims to analyze the distribution and abundance of Thiaridae family members in the Upper Opak River Basin, as well as to examine the impact of environmental factors on their distribution and abundance. The environmental factors observed include water temperature, dissolved oxygen (DO), alkalinity, pH, flow rate, and nutrient levels. The study was conducted at five research stations: Terasi River, Denggung River, Opak River, Kuning River, and Oya River, with sampling locations determined using the purposive random method. Gastropod sampling was carried out three times at each sampling point based on the distance method as a proxy point. The data analyzed included species count, density, and frequency. The data were analyzed using the Shannon-Wiener Diversity Index, evenness, and dominance. The findings show that 6 of 12 species belong to the members of Thiaridae family. The Gastropod Diversity Index for the Thiaridae family is H' = 1.19, which indicates moderate diversity. Additionally, the physical-chemical parameters that influence the distribution include flow velocity, DO, and light intensity.

KEY WORDS: river ecosystem, environmental factors, macrobentos, dissolved oxygen, Opak River