

EVALUASI KUALITAS AIR PADA AREA PEMANFAATAN LAHAN YANG BERBEDA DI DAERAH ALIRAN SUNGAI CILAJA, UJUNG BERUNG

Abstrak

Telah dilakukan penelitian mengenai dampak pemanfaatan lahan yang berbeda terhadap kualitas air DAS Cilaja. Terdapat 3 lokasi yang ditetapkan dengan metode *purposive* yaitu lokasi DAS hutan alami pinus serta perkebunan kopi, DAS persawahan dan DAS pemukiman. Pada setiap lokasi dilakukan 3 sampling dengan masing- masing 3 kali pengulangan. Sampel air diambil untuk pengujian kimia dan fisik air sedangkan sampel makrozoobenthos diambil dengan menggunakan *Surber-Net* yang berukuran 30,5 x 30,5 cm. Makrozoobenthos diawetkan menggunakan formalin, disortir, diidentifikasi dan dihitung. Selanjutnya ditentukan indeks keanekaragaman makrozoobenthos menggunakan indeks *Shannon- Wiener* pada masing- masing lokasi. Hasil yang didapat ditemukan sebanyak 18 jenis makrozoobenthos yang berbeda pada setiap lokasi. Lokasi DAS hutan alami pinus serta perkebunan kopi ditemukan adanya *Syncaris* yang merupakan bioindikator perairan tidak tercemar dengan jumlah 157 individu. Lokasi DAS persawahan ditemukan *Baetis* (Ephemeroptera) dengan jumlah 186 individu. Ordo Ephemeroptera, Plecoptera dan Trichoptera (EPT) merupakan makrozoobenthos yang sensitif terhadap perairan tercemar. Lokasi pemukiman ditemukan Gastropoda dengan jumlah 10 individu yang mampu hidup pada lingkungan yang ekstrim. Saat ini, DAS Cilaja menunjukkan adanya kecenderungan semakin meningkat fungsi lahan disepanjang aliran sungai yang berpengaruh terhadap kondisi kualitas air DAS Cilaja.

Kata kunci : *Sungai Cilaja, Makrozoobenthos, Limbah Organik, Kualitas air, Lahan.*

THE EVALUATION OF WATER QUALITY AT USAGE AREA WHICH DIFFERENT IN RIVER LINE REGION CILAJA, UJUNG BERUNG

Abstract

Research about impact of usage/utilization area that different against water quality of river line region Cilaja had been done. There were 3 location which was determined with purposive method, it was river line region location of pine natural woods and coffee plantation, river line region of wet rice field, and river line region of district (society). In every location was carried out a sampling with 3 times replicate of each. Water sample were taken for chemical test and physics water where as macrozoobenthos sample were taken by Surber-Net size about 30,5 x 30,5 cm. Macrozoobenthos were preserved by formalin, sorted, identified, and counted. Furthermore, on the research was determined the diversity index of macrozoobenthos used Shannon-Wiener index in every location. The result founded 18 kind of macrozoobenthos that different at every location. river line region location of pine natural woods and coffee plantation were founded the existence of Syncaris the bio-indicator from water that not contaminated with total 157 individual. river line region Cilaja of wet rice field was founded Baetis (Ephemeroptera) with total 186 individual. Ordo of Ephemeroptera, Plecoptera, and Tricoptera (EPT) were macrozoobenthos that sensitive against contaminated water. At district location was founded Gastropoda with total 10 individual which able to life in extreme area. At the moment, river line region Cilaja had a tendency to rise function of land in river line region which influential to water quality condition of river line region Cilaja.

Keywords: River Cilaja, Makrozoobenthos, Organic Waste, Water Quality, Land.