

ABSTRAK

Penelitian ini berjudul “ Akumulasi Logam Berat Kromium (Cr) pada Media Air Sedimen dan Ikan Belanak (*Mugil sp.*) di Sungai Donan Segara Anakan Cilacap”. Penelitian ini bertujuan untuk mengetahui kandungan logam Cr pada media air, sedimen dan ikan belanak, hubungan antara kandungan logam Cr pada air dengan sedimen dan ikan belanak, status pencemaran di Sungai Donan Segara Anakan Cilacap. Metode yang digunakan adalah metode survei dengan teknik *Purposive Random Sampling* pada empat stasiun dengan empat kali ulangan. Data analisis secara deskriptif komparatif, uji F, regresi dan korelasi, *Contaminant Factor* (CF), *Indeks Geoakumulation* (Igeo) dan *Bioaccumulation Indeks* (BAF). Hasil penelitian menunjukkan kandungan logam Cr pada air berkisar 0,0112 - 0,0271 mg/L \pm 0,003, sedimen berkisar 0,4430 - 0,82267 mg/kg, ikan belanak berkisar 0,1283 - 0,3320 mg/kg. Kandungan logam Cr pada air dengan sedimen dan ikan belanak memiliki hubungan korelasi yang positif, berkaitan kuat ($R=784$) dan sedang ($R=634$). Status pencemaran berdasarkan indeks CF (seluruh stasiun) termasuk kategori kontaminasi rendah ($CF < 1$), Igeo (seluruh stasiun) termasuk kategori tercemar ringan dan BAF termasuk kategori organisme yang memiliki kemampuan mengakumulasi logam dalam tubuh di seluruh stasiun.

Kata kunci : *Sungai Donan Cilacap, Logam Berat Cr, Air, Sedimen, Ikan Belanak (Mugil sp.)*

ABSTRACT

This research entitled "Accumulation of Chromium (Cr) Heavy Metal in Water Sediment and Mullet Fish (*Mugil* sp.) In the Donan River Segara Anakan Cilacap". This study aims to determine the content of Cr heavy metals in water media, sediment and mullet fish, the relationship between Cr heavy metal content in water with sediment and mullet fish, pollution status in the Donan River Segara Anakan Cilacap. Survey method used in this research with Purposive Random Sampling technique on four stations with four replications. Data were analyzed using comparative descriptive, F test, regression and correlation, Contaminant Factor (CF), Geoaccumulation Index (Igeo) and Bioaccumulation Index (BAF). The results showed the Cr metal content in water was 0.0112-0.0271 mg/L, the sediment was 0.4430-0.82267 mg/kg, the mullet fish was 0.1283-0.3320 mg/kg. The correlation of Cr metal in the water with sediments and mullets also showed positive result, strongly related ($R = 784$) and moderate ($R = 634$). Pollution status based on CF index (all stations) is categorized as low contamination ($CF < 1$), Igeo (all stations) categorized as lightly polluted and BAF is categorized of organisms that have the ability to accumulate metals in the body from all station.

Keywords : *Donan River Cilacap, Cr Heavy Metal, Water, Sediment, Mullet fish (Mugil sp.)*