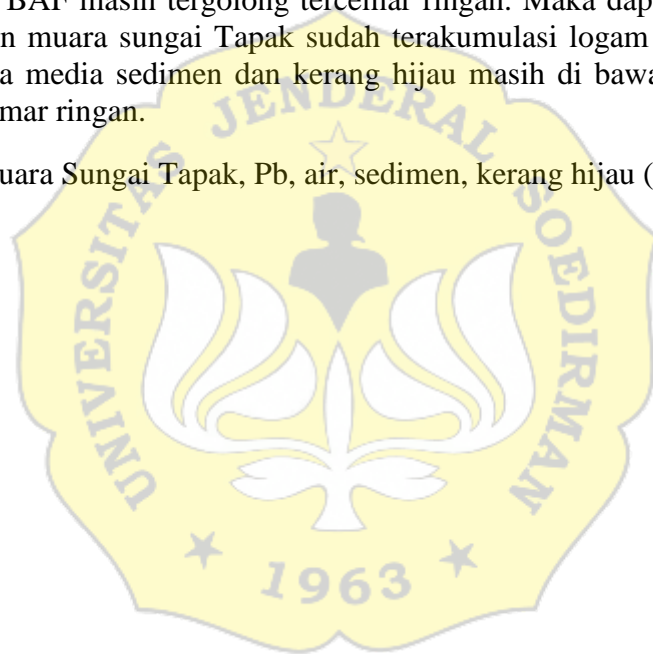


ABSTRAK

Muara Sungai Tapak merupakan muara yang terletak di Kelurahan Kalirejo, Kecamatan Tugu, Kota Semarang. Penelitian ini berjudul “Akumulasi Logam Berat Pb (Plumbum) pada Media Air, Sedimen dan Biota (*Perna viridis*) di Muara Sungai Tapak Tugurejo, Semarang Tahun 2018”. Penelitian ini bertujuan untuk mengetahui perbedaan dan hubungan kandungan logam berat Pb pada media air, sedimen dan biota antar stasiun serta mengetahui tingkat pencemaran berdasarkan nilai *Contaminant Factor* CF, *Index Geoakumulasi* Igeo dan *Bioaccumulation Factor* BAF. Penelitian ini dilakukan di 4 stasiun dengan masing-masing terdapat 4 ulangan. Analisis statistik menggunakan uji F yang menunjukkan hasil yang signifikan berdasarkan kandungan logam berat Pb pada media air, sedimen dan biota. Analisis korelasi antara kandungan logam Pb media air, sedimen, dan biota juga menunjukkan hasil yang positif. Hasil kandungan logam berat Pb pada media air berkisar 0,2188-0,9963 mg/L, media sedimen berkisar 1,9459-4,3309 mg/kg, dan pada kerang hijau 0,2074-0,3870 mg/kg. Tingkat pencemaran berdasarkan nilai CF, Igeo, BAF masih tergolong tercemar ringan. Maka dapat disimpulkan bahwa kondisi perairan muara sungai Tapak sudah terakumulasi logam berat pada media air, sedangkan pada media sedimen dan kerang hijau masih di bawah ambang baku serta tergolong tercemar ringan.

Kata kunci : Muara Sungai Tapak, Pb, air, sedimen, kerang hijau (*Perna viridis*)



ABSTRACT

The estuary of Tapak river is located in Kalirejo village, Tugu Sub-district, Semarang. This research, entitled “The Accumulation of Pb (Plumbum) Heavy Metal in The Water, Sediment, and Green Mussel (*Perna viridis*) in The Tapak River Estuary, Semarang in 2018”, was aimed to analyse the difference and correlation of Pb heavy metal in the water, sediment, and green mussel among stations and to know its pollution levels based on Contamination Factor CF, Geo-accumulation Index Igeo, and Bioaccumulation Factor BAF. During the research, four stations were determined and quadruplicate samplings were run in each station. Data were F-tested resulting in significant different contents among Pb heavy metal in the water, sediment, and green mussel. The correlation of Pb in the water, sediment, and biota also showed positif result. The Pb heavy metal in the water was 0.2188-0.9963 mg/L, in the sediment ranged between 1.9459-4.3309 mg/kg, and while in the green mussel was 0.2074-0.3870 mg/kg. From CF, Igeo, and BAF, pollution level in Tapak River was classified as mild. Therefore, it could be concluded that the water of Tapak river estuary had been accumulated by heavy metal. However, in the sediment and in green mussel, the pollutions remained under the standard threshold.

Key words: Tapak River Estuary, Pb, Water, Sediment, Green mussel (*Perna viridis*)

