

RINGKASAN

RENTA SRI DAMIKA BR SIAHAAN. Distribusi Vertikal Logam (Pb dan Fe) Zona Intertidal Sekitaran Pulau Dompok. Dibimbing oleh AGUNG DHAMAR SYAKTI dan JELITA RAHMA HIDAYATI.

Bahan pencemar yang masuk ke perairan mengandung logam seperti Timbal (Pb) dan Besi (Fe). Seiring berjalannya waktu, sedimen akan membentuk lapisan-lapisan dan banyaknya masukan logam tergantung pada masukan berdasarkan aktivitas yang terjadi di daratan. Penelitian bertujuan untuk mengetahui distribusi vertikal kandungan logam dan menilai status logam Timbal (Pb) dan Besi (Fe) pada sedimen pesisir Pulau Dompok. Penelitian dilakukan pada bulan Juni 2023 di pesisir Pulau Dompok. Penelitian ini dilakukan dengan metode *purposive sampling* penentuan lokasi dengan pertimbangan tertentu berdasarkan masukan pencemaran yang berbeda yang terdiri dari 4 stasiun yaitu berada di area pemukiman masyarakat, di area mangrove, area bongkar muat kapal dan penduduk, serta di area aktivitas pelayaran dan budidaya. setiap stasiun diambil sampel sedimen pada tiga kedalaman yaitu pada permukaan (0 meter), 1 meter, dan 2 meter. Hasil penelitian nilai kandungan logam Timbal (Pb) dan Besi (Fe) tertinggi rata rata terdapat pada kedalaman 2 meter, nilai yang di dapatkan masih di bawah baku mutu yaitu logam (Pb) 2,91 mg/kg dan (Fe) 2,09 mg/kg terdapat pada stasiun 4. Nilai faktor kontaminasi (Cf) setiap kedalaman berkisar 0,01 - 0,07 logam (Pb) dan 0,01 - 0,06 logam (Fe) termasuk dalam katagori tingkat kontaminasi rendah ($CF < 1$). Nilai indeks Geoakumulasi (I-Geo) logam (Pb) dan (Fe) yang didapatkan nilai kisaran 0,00-0,01 keduanya tergolong dalam katagori tercemar ringan.

Kata kunci: Logam, Pencemaran, Pulau Dompok, Sedimen

SUMMARY

RENTA SRI DAMIKA BR SIAHAAN. Vertical Distribution of Metals (Pb and Fe) in the Intertidal Zone Around Dompok Island. Supervised by AGUNG DHAMAR SYAKTI and JELITA RAHMA HIDAYATI.

Pollutants that enter the waters contain heavy metals such as Lead (Pb) and Iron (Fe). Over time, sediment will form layers and the amount of metal input depends on the input based on activities that occur on land. The research aims to determine the vertical distribution of heavy metal content and assess the status of the heavy metals Lead (Pb) and Iron (Fe) in the coastal sediments of Dompok Island. The research was conducted in June 2023 on the coast of Dompok Island. This research was carried out using a purposive sampling method to determine locations with certain considerations based on different pollution inputs consisting of 4 stations, namely in community residential areas, mangrove areas, ship and population loading and unloading areas, and shipping and cultivation activity areas. Sediment samples were taken at each station at three depths, namely at the surface (0 meters), 1 meter and 2 meters. The results of the research showed that the highest values for the heavy metal content of Lead (Pb) and Iron (Fe) were found on average at a depth of 2 meters, the values obtained were still below the quality standard, namely metal (Pb) 2.91 mg/kg and (Fe) 2,09 mg/kg is found at station 4. The contamination factor (Cf) value at each depth ranges from 0.01 - 0.07 metal (Pb) and 0.01 - 0.06 metal (Fe) included in the low contamination level (CF) category. < 1). The Geoaccumulation Index (I-Geo) values for metals (Pb) and (Fe) obtained values ranging from 0.00-0.01, both of which are classified in the lightly polluted category.

Keywords: Heavy Metals, Pollution, Dompok Island, Sediment