

ABSTRAK

Penelitian ini berjudul “Analisis Kandungan Logam Berat Merkuri (Hg) dan Arsen (As) pada Kerang Totok (*Polymesoda erosa*) di Perairan Segara Anakan, Cilacap”. Tujuan penelitian ini yaitu untuk mengetahui adanya kandungan logam berat Hg dan As pada daging kerang totok, membangun hubungan antara potensi logam berat dengan ukuran kerang totok, dan mengetahui potensi risiko kesehatan manusia berdasarkan standar Badan Pengawas Obat dan Makanan (BPOM), *Estimated Daily Intake* (EDI), *Target Hazard Quotient* (THQ), dan *Target Cancer Risk* (TR). Metode yang digunakan adalah metode survei dengan teknik *purposive sampling*. Lokasi penelitian dibagi menjadi 6 stasiun dengan 3 kali ulangan pengambilan sampel. Hasil analisis data menunjukkan 0,0017 - 0,0054 mg/kg merkuri (Hg) dan 0,0035 - 0,007 mg/kg arsen (As) pada daging kerang totok (*P. erosa*). Berdasarkan BPOM RI No. 9 Tahun 2022 kandungan tersebut belum melampaui standar baku mutu. Potensi logam berat (Hg dan As) dengan ukuran cangkang (panjang dan lebar) kerang totok (*P. erosa*) menunjukkan perbandingan lurus. Tingkat risiko terhadap kesehatan manusia tergolong rendah berdasarkan nilai EDI masih jauh di bawah ambang batas, dilihat dari tingkat THQ pun tergolong tidak berisiko, dan memiliki risiko karsinogenik yang rendah pula sesuai dengan perhitungan TR dengan nilai yang sangat kecil. Hal ini menunjukkan kerang totok di perairan Segara Anakan tergolong aman dan tidak berisiko.

Kata kunci : Logam Berat, Merkuri (Hg), Arsen (As), *Polymesoda erosa*, Segara Anakan

ABSTRACT

This study is entitled "Analysis of Heavy Metals Content Mercury (Hg) and Arsenic (As) in Mud Clam (*Polymesoda erosa*) at Segara Anakan Lagoon, Cilacap". The purpose of this study was to determine the presence of heavy metals Hg and As in mud clam meat, to establish a relationship between the potential of heavy metals and the size of mud clam, and to determine the potential risk to human health based on the Badan Pengawas Obat dan Makanan (BPOM) standards, Estimated Daily Intake (EDI), Target Hazard Quotient (THQ), and Target Cancer Risk (TR). The method used is a survey method with a purposive sampling technique. The research location was divided into 6 stations with 3 repetitions of sampling. The results of data analysis showed 0.0017 - 0.0054 mg/kg mercury (Hg) and 0.0035 - 0.007 mg/kg arsenic (As) in mud clam (*P. erosa*) meat. Based on BPOM RI No. 9 of 2022 the content has not exceeded the quality standards. The potential of heavy metals (Hg and As) to the shell size (length and width) of mud clam (*P. erosa*) shows a direct comparison. The level of risk to human health is classified as low based on the EDI value which is still far below the threshold, seen from the THQ level it is also classified as not at risk, and has a low carcinogenic risk according to TR calculations with a very small value. This shows that mud clams in Segara Anakan Lagoon are classified as safe and not at risk.

Keywords : Heavy Metals, Mercury (Hg), Arsenic (As), *Polymesoda erosa*, Segara Anakan

