

Wati, F. N. I. R. 2019. Analisis Kandungan Logam Berat Hg, Cu, dan Cr pada Kerang Putih (*Meretrix lyrata*) di Muara Sungai Brondong Kabupaten Lamongan dan Muara Sungai Bancaran Kabupaten Bangkalan. Skripsi ini dibawah bimbingan Drs. Trisnadi Widyaleksono C.P., M.Si. dan Prof. Dr. Ir. Agoes Soegianto, DEA, Program Studi S1 Teknik Lingkungan, Departemen Biologi, Fakultas Sains dan Teknologi, Universitas Airlangga.

ABSTRAK

Penelitian ini bertujuan untuk mengetahui kandungan logam berat Hg, Cu, dan Cr pada daging kerang putih (*Meretrix lyrata*) di muara Sungai Brondong Kabupaten Lamongan dan muara Sungai Bancaran Kabupaten Bangkalan, serta kelayakan konsumsi daging kerang putih (*Meretrix lyrata*) di muara Sungai Brondong dan muara Sungai Bancaran berdasarkan kandungan logam berat pada dagingnya. Kandungan logam berat dianalisis menggunakan AAS (*Atomic Absortion Spectrophotometry*), sedangkan kelayakan konsumsi dihitung menggunakan rumus PTWI (*Provisional Tolerable Weekly Intake*). Analisis data disajikan dua macam, yaitu analisis deskriptif dengan tabel dan grafik, sedangkan analisis statistik dengan uji *Independent sample t-test*. Nilai rerata kandungan logam berat Hg di muara Sungai Brondong yaitu 0,11 mg/kg, sedangkan di muara Sungai Bancaran yaitu 0,01 mg/kg. Nilai rerata kandungan logam berat Cu di muara Sungai Brondong yaitu 2,90 mg/kg, sedangkan di muara Sungai Bancaran yaitu 1,01 mg/kg. Nilai rerata kandungan logam berat Cr di muara Sungai Brondong yaitu 2,39 mg/kg, sedangkan di muara Sungai Bancaran yaitu 0,81 mg/kg. Berdasarkan kelayakan konsumsi, daging kerang putih (*Meretrix lyrata*) di muara Sungai Brondong tidak layak dikonsumsi karena melebihi baku mutu PTWI, sedangkan daging kerang putih (*Meretrix lyrata*) di muara Sungai Bancaran layak dikonsumsi karena tidak melebihi baku mutu PTWI.

Kata Kunci: Kerang putih (*Meretrix lyrata*), logam berat Cr, logam berat Cu, logam berat Hg, PTWI (*Provisional Tolerable Weekly Intake*)

Wati, F. N. I. R. 2019. *Analysis the Content of Heavy Metals Hg, Cu, and Cr on Hard Clam (Meretrix lyrata) at the Brondong River estuary, Lamongan Regency and Bancaran River estuary, Bangkalan Regency. This script was supervised by Drs. Trisnadi Widyaleksono C.P., M.Si. and Prof. Dr. Ir. Agoes Soegianto, DEA, Undergraduate Program of Environmental Engineering, Department of Biology, Faculty of Science and Technology, University Airlangga.*

ABSTRACT

This reaserch is aims to determine the heavy metals Hg, Cu, and Cr content on hard clam (Meretrix lyrata) flash at the Brondong River estuary, Lamongan Regency and Bancaran River estuary, Bangkalan Regency, and the consumption feasibility of hard clam (Meretrix lyrata) based on heavy metals content in the flash. The heavy metals content were analysis using AAS (Atomic Absortion Spectrophotometry), while the consumption feasibility was calculated using the PTWI (Provisional Tolerable Weekly Intake) formula. Data analysis presented two kinds, descriptive analysis with tables and graphs, while statistical analysis with independent sample t-test. The average content of Hg at the Brondong and Bancaran River estuary is 0,11 mg/kg and 0,01 mg/kg. The average content of Cu at the Brondong and Bancaran River estuary is 2,90 mg/kg and 1,01 mg/kg. The average content of Cr at the Brondong and Bancaran River estuary is 2,39 mg/kg and 0,81 mg/kg. The hard clam (Meretrix lyrata) flesh on Brondong River estuary is not safe for consumption because it exceeds the PTWI standard, while the hard clam (Meretrix lyrata) flesh on Bancaran River estuary is suitable for consumption because it does not exceed the PTWI standard.

Keywords: *Hard clam (Meretrix lyrata), heavy metal Cr, heavy metal Cu, heavy metal Hg, PTWI (Provisional Tolerable Weekly Intake)*