

Firdaus, R. A., 2019. Analisis Kandungan Logam Berat Merkuri (Hg), Tembaga (Cu), Kromium (Cr) Pada Kerang Darah (*Anadara granosa*) Di Muara Sungai Ujungpangkah Kabupaten Gresik dan Di Muara Sungai Brondong Kabupaten Lamongan. Skripsi ini dibawah bimbingan Drs. Trisnadi Widyaeksono C.P., M.Si. dan Prof. Dr. Ir. Agoes Soegianto, DEA. Program Studi S-1 Teknik Lingkungan, Departemen Biologi, Fakultas Sains dan Teknologi, Universitas Airlangga.

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### ABSTRAK

Penelitian ini bertujuan untuk mengetahui kandungan logam berat Hg, Cu, dan Cr pada daging kerang darah (*Anadara granosa*) di muara sungai ujungpangkah kabupaten gresik serta kelayakan daging kerang darah (*Anadara granosa*) di muara sungai Brondong lamongan untuk dikonsumsi berdasarkan kandungan logam berat Hg, Cu, dan Cr dalam dagingnya. Analisis data yang dilakukan terdiri dari dua macam yaitu analisis deskriptif yang disajikan dengan tabel dan grafik serta analisis statistik dengan uji *independent sample t – test*. Hasil pada penelitian ini adalah kandungan logam berat Hg di muara sungai ujungpangkah dan muara sungai brondong adalah 1,77 ppm dan 0,802 ppm, kandungan logam berat Cu di muara sungai ujungpangkah dan brondong adalah 3,988 ppm dan 2,55 ppm, kandungan logam berat Cr di muara sungai ujungpangkah dan brondong adalah 2,968 ppm dan 1,875 ppm. Hasil analisis statistik menunjukkan bahwa ada beda kandungan logam berat Hg, Cu, dan Cr pada daging kerang darah (*Anadara granosa*) diantara muara sungai ujungpangkah dan brondong . Serta daging kerang darah (*Anadara granosa*) pada muara sungai ujungpangkah dan brondong tidak layak untuk dikonsumsi karena melebihi standart PTWI (*Provisional Tolerable Weekly Intake*) yang telah ditetapkan.

**Kata Kunci** : Logam berat, kerang darah (*Anadara granosa*), kelayakan konsumsi, muara sungai ujungpangkah, muara sungai brondong

Firdaus, R. A., 2019., 2019. *Analysis of Heavy Metal Content of Mercury (Hg), Copper (Cu), Chromium (Cr) in Blood Shells (Anadara granosa) in the mouth of the Ujungpangkah River Gresik Regency and in the Brondong River Estuary, Lamongan Regency. This script was supervised by Drs. Trisnadi Widyaleksono C.P., M.Si. and Prof. Dr. Ir. Agoes Soegianto, DEA. Undergraduate Program Study of Environmental Engineering, Department of Biology, Faculty of Sciences and Technology, Universitas Airlangga.*

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### **ABSTRACT**

*The aim of this study is to determine the content of Hg, Cu, and Cr heavy metal substances contained in blood clams (Anadara granosa) in the estuary of Ujungpangkah River in Gresik Regency and the feasibility of blood clams (Anadara granosa) in the estuary of Brondong River in Lamongan for human consumption based on the Hg, Cu, and Cr heavy metal substances contained. In this research, the two data analysis methods used are descriptive analysis presented in tables and graphs, and statistic analysis by testing independent sample t – test. This study finds the Hg heavy metal substance contained in the Ujungpangkah River estuary and Brondong River estuary are 1,77 ppm and 0.802 ppm, Cu heavy metal substance contained in the Ujungpangkah River estuary and Brondong River estuary are 3.988 ppm and 2.55 ppm, and Cr heavy metal substance contained in the Ujungpangkah River estuary and Brondong River estuary are 2.968 ppm and 1.875 ppm. The statistic analysis finds that there are differences between Hg, Cu, and Cr heavy metal substances contained in blood clams (Anadara granosa) in the estuary of Ujungpangkah River and Brondong River. Furthermore, blood clams (Anadara granosa) in the estuary of Ujungpangkah River and Brondong River are not feasible for consumption because the substances exceed the PTWI Standard (Provisional Tolerable Weekly Intake) that has been set.*

**Keywords** : heavy metals, blood clams (Anadara granosa), consumption feasibility, Ujungpangkah estuary, brondong river estuary.