

**RINGKASAN**

**LAILATUL MAGHFIROH. Studi Kandungan Timbal (Pb) di Perairan Wonorejo, Surabaya terhadap Kerusakan Insang Kerang Darah (*Anadara Granosa*) dengan Pemeriksaan Histopatologi. Dosen Pembimbing Utama Boedi Setya Rahardja, Ir., MP. Dosen Pembimbing Serta Prof. Dr. Dewa Ketut Meles, drh., MS.**

Kerang darah (*Anadara granosa*) merupakan salah satu jenis kerang yang memiliki nilai ekonomis tinggi untuk dikembangkan sebagai sumber protein dan mineral untuk memenuhi pangan masyarakat Indonesia. Muara Sungai Wonorejo merupakan salah satu daerah yang berpotensi mengalami pencemaran logam berat Timbal (Pb) akibat aktifitas di daratan. Timbal (Pb) merupakan logam non esensial yang sifatnya toksik. Pada konsentrasi toksik timbal dapat mengganggu kerja enzim, dan fungsi protein. Timbal juga dapat menutupi lapisan mukosa pada organisme akuatik yang menyebabkan gangguan sistem pernafasan (Saeni, 1989).

Penelitian ini dilaksanakan Oktober 2018. Pengambilan sampel dilakukan di Muara Sungai Wonorejo pada tiga stasiun. Analisis Kandungan logam berat Timbal (Pb) pada air, sedimen, dan insang kerang darah (*Anadara granosa*) dilakukan di Laboratorium Gizi Fakultas Kesehatan Masyarakat Universitas Airlangga. Pengamatan preparat histopatologi dilakukan di Laboratorium Basah Fakultas Perikanan dan Kelautan Universitas Airlangga. Metode penelitian menggunakan metode observasi. Sampel air, sedimen, dan insang kerang diuji menggunakan alat *Atomic Absorption Spectrophotometry* (AAS). Pengamatan preparat histopatologi diamati dengan mikroskop.

Hasil penelitian ini menunjukkan kadar Timbal (Pb) di Muara Sungai Wonorejo yaitu 0,336-0,753 mg/l. Kandungan Timbal (Pb) di sedimen berkisar antara 9,036-16,901 mg/kg dan pada insang kerang yaitu antara 1,054-1,858 mg/kg. kandungan Timbal (Pb) menyebabkan kerusakan insang kerang darah dalam bentuk Edema dan Nekrosis

## SUMMARY

**LAILATUL MAGHFIROH. Study Of Lead (Pb) Content in The Estuary Wonorejo, Surabaya Against Blood Clams (*Anadara Granosa*) Gills Damage with Examination Of Histopathology. Main Academic Advisor Boedi Setya Rahardja, Ir., MP. and Secondary academic Advisor Prof. Dr. Dewa Ketut Meles, drh., MS.**

Blood Clam (*Anadara granosa*) is one type of shellfish that has high economic value to be developed as a source of protein and minerals to meet the food of the Indonesian people. The Estuary of Wonorejo is one area that has the potential to experience lead (Pb) heavy metal pollution due to land activities. Lead (Pb) is essential metals that are very toxic. At toxic concentration, lead can interfere with the workings of enzymes and protein function. Lead can also cover the mucous layer in aquatic organism that cause respiratory system disorder (Saeni, 1989).

This research was conducted in October 2018. Sampling was carried out Estuary of Wonorejo at three stations. Analysis of lead metal content in water, sediment, blood clam gills carried on in the Nutrition Laboratory of the Faculty of Public Health at Airlangga University. The research method use the observation method. Sample water, sediment, and gill shell were tested using a tool *Atomic Absorption Spectrophotometry* (AAS). Observation of histopathological preparation was observed with a microscope.

The results of this study showed lead (Pb) levels at the estuary of the wonorejo that is 0,336-0,753 mg/l. Lead (Pb) content in sediment ranges between 9,036-16,901 mg/kg and in blood clam gills namely between 1,054-1,858 mg/kg. Lead (Pb) content cause damage to the gills of mussels of the blood in the form of edema and necrosis