Kandungan Logam Berat Seng (Zn) dan Timbal (Pb) pada Sedimen dan Ikan Mujair Oreochromis mossambicus (Peters, 1852) di Tambak Blanakan, Subang, Jawa Barat = Heavy Metals Content of Zinc (Zn) and Lead (Pb) in Sediment and Mozambique Tilapia Oreochromis mossambicus (Peters, 1852) at Blanakan Ponds, Subang, West Java

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Abstrak

Kawasan tambak Blanakan, Subang, Jawa Barat merupakan tempat budidaya perikanan yang telah dipengaruhi oleh berbagai aktivitas antropogenik di sekitarnya. Ikan mujair merupakan salah satu komoditas budidaya di tambak Blanakan yang banyak dikonsumsi dan diperjualbelikan. Penelitian ini bertujuan untuk menentukan kandungan logam berat seng (Zn) dan timbal (Pb) pada sedimen dan ikan mujair (Oreochromis mossambicus), serta mengetahui nilai Bioconcentration Factor (BCF) logam berat seng dan timbal pada ikan mujair di tambak Blanakan, Subang, Jawa Barat. Pengambilan sampel dilakukan menggunakan metode purposive sampling pada tiga stasiun dengan titik inlet, midlet, dan outlet. Sampel sedimen diambil sebanyak 500 gram pada setiap titik dari ketiga stasiun, sedangkan ikan mujair diambil sebanyak 5 individu dari setiap stasiun. Preparasi sampel dilakukan dengan cara sampel sedimen dikeringkan ke dalam oven, sedangkan ikan mujair dibedah untuk didapatkan sampel daging. Analisis kandungan logam berat seng menggunakan metode Atomic Absorption Spectrophotometry (AAS), sedangkan logam timbal menggunakan metode Inductively Coupled Plasma (ICP). Berdasarkan hasil analisis, kandungan logam berat seng pada sedimen berkisar 15,21 – 43,94 ppm, sedangkan logam timbal berkisar 5,04 – 7,88 ppm. Kandungan logam berat seng pada ikan mujair berkisar 3,33 – 8,21 ppm, sedangkan logam timbal tidak terdeteksi. Nilai BCF logam seng pada ikan mujair berkisar 0,132 – 0,311 (deconcentrator). Nilai BCF logam timbal pada ikan mujair tidak dapat ditentukan.

.....The Blanakan ponds area, Subang, West Java, is a place for aquaculture where various anthropogenic activities have influenced the vicinity. Mozambique tilapia is one of the aquaculture commodities at Blanakan ponds, which is widely consumed and traded. This study aims to determine the content of heavy metals zinc (Zn) and lead (Pb) in sediments and mozambique tilapia (Oreochromis mossambicus), and to determine the value of the Bioconcentration Factor (BCF) of heavy metals zinc and lead in mozambique tilapia at Blanakan ponds, Subang, West Java. Sampling was carried out using the purposive sampling method at three stations with inlet, midlet, and outlet points. Sediment samples were taken as much as 500 grams at each point from the three stations, while 5 individuals of mozambique tilapia were taken from each station. Sample preparation was carried out by drying the sediment samples in an oven, while the mozambique tilapia were dissected to obtain meat samples. Analysis of the heavy metal content of zinc used the Atomic Absorption Spectrophotometry (AAS) method, while lead metal used the Inductively Coupled Plasma (ICP) method. Based on the analysis results, the heavy metal content of zinc in the sediment ranged from 15,21 – 43,94 ppm, while lead metal ranged from 5,04 – 7,88 ppm. The heavy metal content of zinc in mozambique tilapia ranged from 3,33 – 8,21 ppm, while lead metal was not detected. The BCF value of zinc metal in mozambique tilapia ranged from 0,132 – 0,311 (deconcentrator). The BCF value of lead metal in mozambique tilapia cannot be determined.