

ABSTRAK

Heavy metals are chemical elements that have a density value of more than 5 g/cm³ with atomic numbers 22 to 92 and are able to form complex bonds when entering the body of an organism. Heavy metals have toxic properties that can harm aquatic biota such as fish, so they can attack one of the digestive organs such as the fish liver. The liver is one of the digestive organs of fish that is quickly exposed to heavy metals and can accumulate. This study was conducted using the exploration survey method in the coastal waters of North Aceh Regency and Lhokseumawe City. The morphometric data of tiger grouper (*Epinephelus* sp.) with the largest weight was at station 3 sample A with a fish weight reaching 424.5 grams with a total length of 32 cm and a fish liver weight of 7.9 grams while the fish with the lowest weight was at station 4 in sample A with a fish weight of 107.5 grams with a total length of 21 cm and a fish liver weight of 0.7 grams. The content of heavy metal lead (Pb) in the liver of grouper fish obtained was less than 0.07 ppm while the weight of cadmium (Cd) had a value of less than 0.03 ppm. This value indicates that the content of heavy metals is still below the quality standard and is safe for consumption.

Keywords: Exploration Survey, fish liver, Grouper, Heavy Metals, Industrial Area