

Influence of Temperature During Frozen Storage on Distribution and Redistribution of Some Heavy Metals in Green Back Mullet Fish (*Liza dussumieri*)

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Effect of two storage temperatures $-14\pm 2^{\circ}\text{C}$ and $-28\pm 2^{\circ}\text{C}$ was investigated on distribution and redistribution of Fe, Cu, Zn, Mg, Mn, Hg, Pb and Cd metals in tissue and viscera of green back mullet. Statical results showed that average amount of Fe metal in tissue of mature and immature fish stored at -14°C (respectively 77.1 ppm and 166.6 ppm) was more than both fresh mature and immature fish (28.5 ppm and 88.1 ppm) and fish stored at -28°C (26 ppm and 109.1 ppm). Amount of Zn metal in the viscera of mature fish stored at -28°C (56.8 ppm) was more than fresh fish (43.5 ppm) and fish stored at -14°C (43.5 ppm). Likewise amount of Pb metal in the viscera of immature fish (59.9 ppm) and fish stored at -14°C (58.3 ppm) was less than immature fish stored at -28°C (110.2 ppm). Considering that the amount of other metal did not show significant changes during frozen storage, it seems that -28°C temperatures provides better quality from the view point of distribution and redistribution of heavy metals, and fish tissues stored at this temperature have more food immunity and health for consumers.

Key words: Heavy metals, Freezing temperature, Distribution and redistribution, Green back mullet.

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