

重金屬在魚體之累積

The Ripper Fascination: Morality, Discipline and Medical Imagination

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摘要

對海洋生物來說，由環境累積高濃度的重金屬在組織內通常被認為是有毒的。在本文中，我們比較二種必需金屬(鋅與銅)與三種非必需金屬(鎘、鉛與汞)，在魚類體內肝臟、性腺、鰓、腸及肌肉等組織中之累積情形。一般而言，重金屬在魚類組織中所累積濃度的高低順序通常是：肝臟與性腺 > 鰓與腸 > 肌肉。必需金屬在魚體內所累積之濃度，通常比非必需金屬之濃度，來得較高且穩定。因魚類本身攝食、棲地、性別與年齡大小，以及受環境季節變動與鹽度等因子影響，造成魚體各組織內重金屬累積濃度差異或變動等現象，本文亦均有論述。

Abstract

High level accumulation of heavy metals in tissues from environment is considered toxic for the marine organisms. In this review, we primarily compared the accumulations of the two essential metals, copper and zinc, and three non-essential metals, cadmium, lead and mercury, in the fish tissues of liver, gonad, gill, intestine and muscle. In general, the order of the metal concentrations in the tissues of fish is liver and gonad > gill and intestine > muscle. The accumulation levels of the essential metals are generally higher and more homeostatic than the non-essential metals in fish. The differences of the metal accumulation levels influenced by the feeding, habitat, sex and age(size) of fish in the tissues were discussed. Effects of the seasonal change and the salinity in the environment were also reviewed.