BASIC KNOWLEDGE IN MARINE SCIENCES

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Introduction

Nowadays, rapid industrialization and intensive urbanization activities around the globe have tremendously increased the pollution load in the terrestrial and aquatic habitat. Many studies had been attempted to check the sensitivity aquatic flora and fauna toward the pollution especially the heavy metals (Barbosa *et al.*, 2000; Bassi and Sharma, 1993; Bei *et al.*, 1992; Freedman, 1989; Wolfe, 1974). Earlier reports showed that industrial and domestic effluent constitute largest sources of heavy metal which contribute to the steadily increasing metallic contaminant in aquatic and terrestrial environment in most part of the world (Bei *et al.*, 1992; Farkas *et al.*, 2000). Due to this reason the contamination of fresh and marine waters with a wide range of pollutants has become a matter of concern over the last few decades (Vutukuru, 2005; Dirilgen, 2001).). The lethal metals accumulated in the different body parts of fishes could reach food chain through various biochemical processes such as bioconcentration, bioaccumulation and ultimately biomagnified in various trophic levels and eventually threaten the health of humans by seafood consumption (Lakshmanan *et al.*, 2009). It is evident that the fisheries are one of the most important food production sectors in supplying protein to the human population. According to Food and Agriculture Organisation (FAO), world fisheries production in 2008 touched 146 million tonnes and a record value of 103 billion USD. Due to the increasing health consciousness of the consumers, seafood demands increase drastically during the past decade. The ever growing human population has pressurized on the sustainability of the fish population in the sea. The issues of over harvesting, global warming, pollution and fisheries stock management continue haunting the