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EVALUATION OF TRACE METALS IN KOTTAPURAM - CHETTUVA KAYAL AT THRISSUR DISTRICT IN KERALA

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The concentration of four trace metals such as copper, zinc, lead and cadmium in water, sediment and different animal tissues was examined in the Kottapuram-Chettuva Kayal during the period August 2009 to July 2010. Among the four trace metals, copper seems to be the most abundant and cadmium the least, in all compartments. No station wise variation is observed for all trace metals in water. The order of metals in the system is $Cu > Zn > Pb > Cd$. There is no correlation between the concentration in water and soft tissues. This study revealed the presence of trace metals in various aquatic animals along with water and sediment.

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BACTERIAL COMMUNITIES FROM NEAR GLACIER AND TRANSITION ZONES OF KONGSFJORDEN, ARCTIC: A METAGENOMIC STUDY

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Arctic is of paramount importance for global biodiversity and has more than 20,000 species of plants, animals and microorganisms. The present study is focused on some of the functional bacterial communities of the biogeochemical cycles in the Kongsfjorden of Arctic ocean. Surface water samples (20 litre) were collected from near glacier zone (78°99'31"N; 12°3'00"E) and transition zone (78°5'54"N; 11°51'24"E) of Kongsfjorden, Arctic during the Summer Arctic Expedition (NCAOR, 2015-16). Sequential multistage pre-filtration of water samples was carried out using filter membranes to remove larger organisms and to collect bacteria. Bacterial fraction retained in 0.22µ cellulose nitrate filter membrane was subjected to metagenomic DNA extraction using modified Zhou *et al.* protocol. 16S rRNA amplification using group specific primers