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Title:	Distribution and quantification of micro-plastic concentrations in aquatic system in Indian subcontinent
Authors:	Kumar, Ajay (/jspui/browse?type=author&value=Kumar%2C+Ajay)
Keywords:	Geology Sampling Grain size analysis Microplastic extraction
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Abstract:	The microplastics (MPs, particle size less than 5 mm) have been identified as environmentally recalcitrant and complex contaminants of growing societal concern. The available data on MPs concentrations have been overwhelmingly focused on marine realm, whereas there is a dearth of studies that have quantified microplastics in lacustrine ecosystems. In the present study ecologically important (Ramsar site) freshwater ecosystem in Central Himalaya – Renuka lake have been selected to investigate the concentrations of MPs in sediments. To examine the occurrence of microplastic particles (MPs) in the Renuka Lake, the collected lake water and sediment samples were processed for microplastic extraction through density separation. The microplastics were retrieved from all sediment and water samples in the entire lake basin, indicating their extensive distribution in the lake basin. The abundance of MPs recorded from the lake surface sediment samples is in the range of 5-86 particles/500gm and 5-65 particles/litre are recorded for water samples. The Raman spectra of microplastic indicated that low density polypropylene as the dominant polymer component in the MPs of Renuka Lake.
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