

Plastics in freshwater ecosystems

Plastic litter is widely acknowledged as a long-term environmental problem, endangering organisms of all trophic levels. Although 80% of the marine plastic debris is assumed to derive from terrestrial sources, most studies to date focus on marine ecosystems. However, there is growing evidence that freshwater ecosystems are also impacted, and the number of studies dealing with plastics in freshwater ecosystems is increasing very rapidly. These studies indicate that plastic particles and especially microplastic particles (< 5 mm) are widely distributed in many rivers and lakes. Furthermore, these plastics are colonized by microbes and ingested by freshwater organisms, probably leading to adverse impacts. Thanks to recent funding initiatives and because of the high public interest, studies investigating the distribution and effects of plastics in freshwaters are expected to increase in the next years. The proposed special issue aims at aggregating the recent state of the art of the methods investigating plastics in freshwaters, the sources, transport and probable sinks and the biotic effects of plastics in freshwater ecosystems, and it attempts to give perspectives for future research. As estuaries exhibit the transition point of freshwaters to oceans, studies dealing with these research areas are also highly welcome.