

## **Plastic contamination in high-mountain ecosystems: an overview on microplastic contamination on glaciers**

Plastic and particularly microplastics (MPs) contamination has been identified as a hot topic in environmental studies because of their ubiquitous presence in both aquatic and terrestrial ecosystems worldwide, as well as their potential toxicity towards organisms. A wide array of plastic items, including MPs, with different size, shape and polymeric composition has been found in the atmosphere, marine, freshwater, and terrestrial ecosystems. Whilst most of these studies have investigated the MPs contamination close to populated areas, recent monitoring surveys have demonstrated their presence also in the so-called remote areas. High mountain ecosystems and glaciers have not escaped plastic and MPs contamination, as demonstrated by the presence of MPs in soils, residual snow and supraglacial debris from Alpine glaciers. The present contribution aims at giving an overview on the plastic and MP contamination on glaciers, focusing on their presence, sources and distribution patterns, as well as their fate and potential impact on freshwater ecosystems as a consequence of ice melting and glacier retreat.