

Microplastics Detected in Groundwater

Low concentrations of microplastics are present in Illinois' karst groundwater, according to a preliminary study completed in spring 2018. This is the first time that microplastics have been detected in groundwater. The study was conducted in collaboration with scientists at the Illinois State Geological Survey, Illinois State Water Survey, Loyola University Chicago, and ISTC.

The researchers collected 17 groundwater samples from springs in northwestern and southwestern Illinois. Microplastics were found in all but one location. These regions in Illinois have karst topography. This topography has been formed over time from the dissolution of soluble rocks such as limestone and dolomite. Karst systems have a high connectivity to the surface through sinkholes leading to the fractures and crevices that make up the karst aquifers. Consequently, karst aquifers are highly vulnerable to groundwater pollution because of the relatively rapid rate of infiltration and recharge and the lack of a natural filtration system.

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