

# Why Large Sample Volume Matters for Microplastic/Nanoplastic Detection (Poisson Sampling Variance)



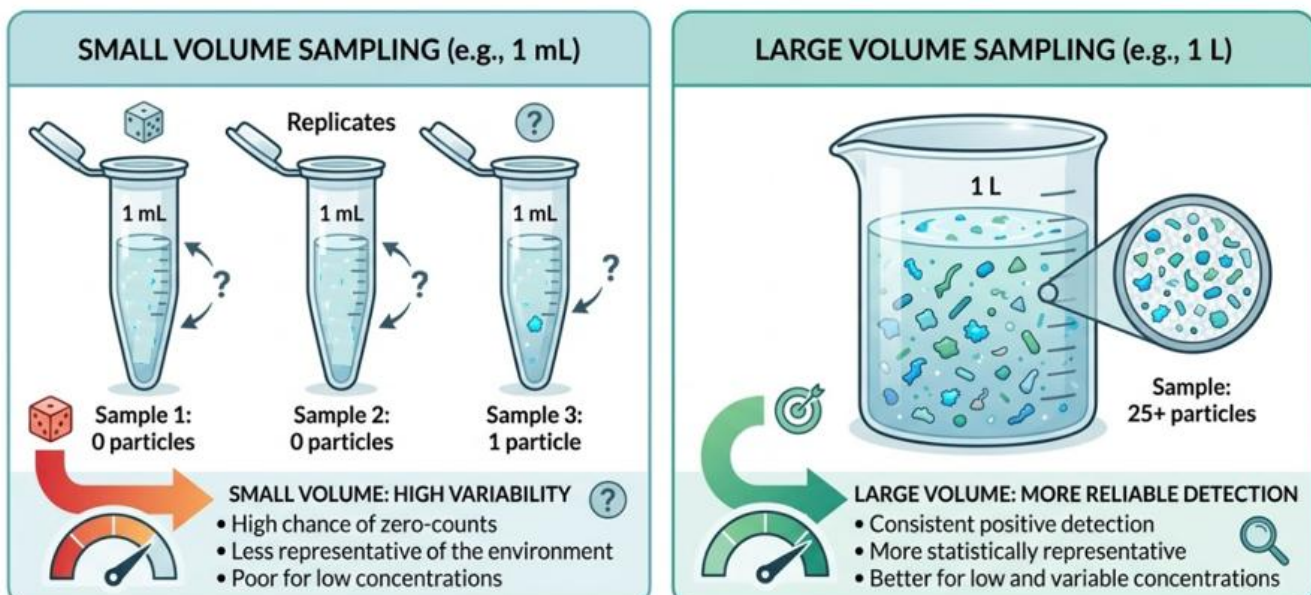
Water that appears clean can still contain dispersed microplastic and nanoplastic particles at low concentrations.

Small samples can miss microplastics/nanoplastic particles entirely due to random variation.

At low concentrations, particle detection follows random (Poisson) variation — meaning small samples may detect zero particles even when contamination is present.

EcoExposure™ uses larger-volume (beaker size) sampling to improve detection reliability and capture microplastics and nanoplastics directly.

## MICROPLASTIC SAMPLING METHODOLOGY: COMPARING SMALL VS. LARGE VOLUME SAMPLING



\*Microplastic particles are shown conceptually for visualization purposes.