



# Microplastics Baseline in Sediment

CHRONOLOGICAL METHOD TO TRACK PLASTICS IN  
VALPARAÍSO BAY

## KEY WORDS

MICROPLASTICS,  
MARINE  
SEDIMENTS,  
ENVIRONMENTAL  
DATING

## DESCRIPTION

A method was developed to identify, characterize and date the presence of microplastics in marine sediments. Through deep-core extraction and layer-by-layer physicochemical analysis, the historical accumulation of polymers since the 1940s was reconstructed.

## POTENTIAL BENEFITS OR IMPACTS

This development provides a unique baseline for coastal environmental studies, supporting future research, public policy making, and plastic pollution monitoring. The method can be replicated in other geographic areas.

## TECHNOLOGY MATURITY LEVEL (TRL)

TRL 3: experimental proof of concept

## AREA OF APPLICATION

Plastics  
Chemistry

## CONTACT US

[dir.qui@pucv.cl](mailto:dir.qui@pucv.cl)

[Pontificia Universidad  
Católica de Valparaíso](#)