

Controls of bio-modulated flocculation on the fate of microplastic pollution in river-estuary transition zones



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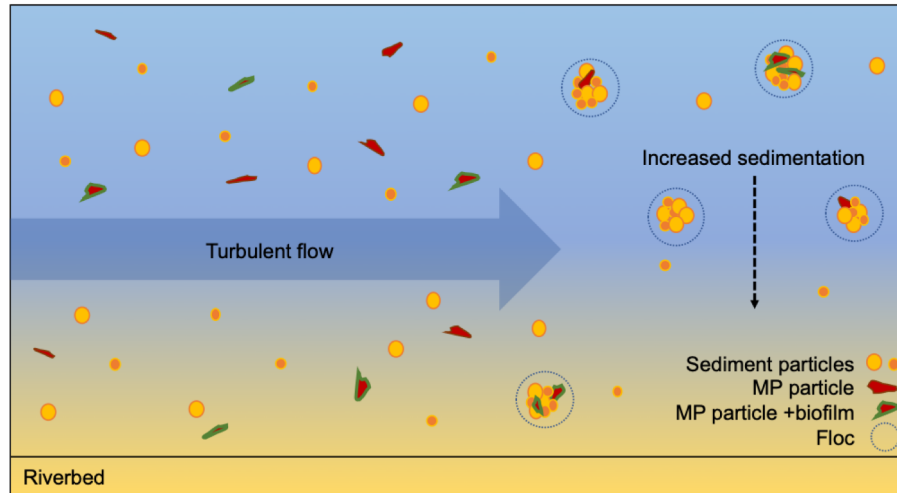


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Motivation

The transport of MPs from rivers to the coastal zone remains poorly understood, especially in regards to how **biofilm** formation and **aggregation** influence particle fate.



Objective - Determine how **settling velocity, w_s** changes due to:



Polymer type



Biofilm growth



Change in salinity

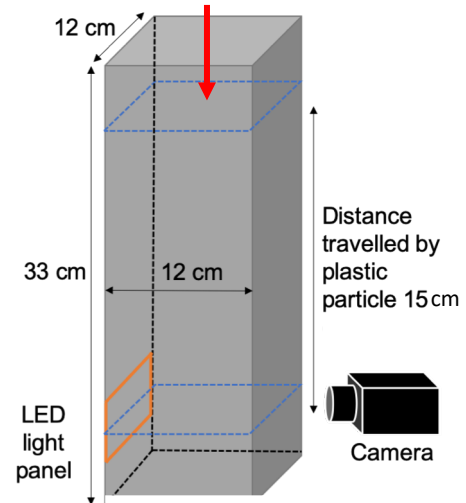
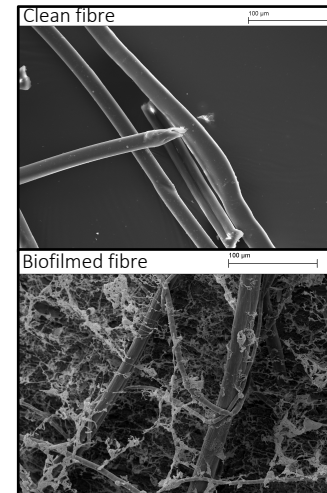


Suspended sediment concentration



Approach

MPs dropped in LabFLOC water column, settling recorded to conduct image-based particle size and settling velocity analysis.



Preliminary results

- Biofilm growth increased settling
- Increased sedimentation at SAL18
- No influence by sediment?

