

Effect of Physical Characteristics and Hydrodynamic Conditions on Transport and Deposition of Microplastics in Riverine Ecosystem

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Table S1. Sources and effect of environmental conditions on the aggregations of microplastics.

River	Sources	Environmental conditions	Governing Processes	References
Austrian Danube, Austria	Urban effluent	Different flow rate from 980 m ³ s ⁻¹ to 5130 m ³ s ⁻¹	Turbulent mixing	[46]
Thames, England	Urban effluent	Different flow rates	Sedimentation and remobilization	[66]
Yangtze, China	Urban effluent	River flow and tidal wave	Suspension and Sedimentation	[171]
Tame, UK	Urban effluent	River Flow and lake	River flow rate and Sedimentation	[11]
Tapi-Phumduang, Thailand	Urban effluent	High and low tidal cycles	Suspension and Sedimentation	[172]
Brisbane River, Australia	Urban effluent	clay (<0.002 mm), silt (0.002–0.063 mm), fine sand (0.063–0.20 mm), sand (0.20–0.63 mm), and coarse sand (>0.63 mm) Clay particles had the highest microplastics abundance	Sediment properties	[173]
29 Japanese Rivers	Urban effluent	High concentration of microplastics found at following environmental conditions pH (7-8),	Water pollution loads	[174]

		suspended solids (0-10 mg L ⁻¹), dissolved oxygen (9 mg L ⁻¹), biochemical oxygen demand (2.5 mg L ⁻¹), total nitrogen (2-3 mg L ⁻¹), and total phosphorus (1 mg L ⁻¹)		
Solimões, Negro and Amazon rivers	Urban effluent	Erosion susceptibility, flow velocities	Resuspension	[175]
Irwell, UK	Urban effluent	Flood with peak discharge between 400-500 m ³ s ⁻¹	Remobilization	[53]
Dahan, & its tributaries, Taiwan	Urban effluent	Precipitations (0-40 mm)	Mobilization and transport	[176]