



Supplementary Material:

Figure S1. Typical marcoplastics and mesoplastics collected in this study.

Table S1. Abundance comparison with other freshwater areas (Surface water).



Figure S1. Typical macroplastics and mesoplastics collected in this study.

Table S1. Abundance comparison with other freshwater areas (Surface water).

Surface Water	Location	Abundance (Items/m ³)	Reference
Los Angeles River	USA	22–12,932	[1]
Tamar Estuary	UK	0.028	[2]
Yangtze River Estuary	China	500–10,200	[3]
Oujiang Estuary	China	100–4100	[4]
Seine River	France	3–108	[5]
Great Lakes tributaries	North America	0.05–32	[6]
Lake Bolsena	Italy	0.82–4.42	[7]
Lake Chiusi	Italy	2.68–3.36	[7]
Taihu Lake	China	3400–25,800	[8]
Bei Lake	China	7800–10,050	[9]
Wu Lake	China	1160–2380	[10]
Three Gorges Dam	China	1594–12,611	[11]
Rhine River and Meuse River	Netherlands and Germany	100–18,700	[12]
Middle-Lower Yangtze River Basin	China	500–3100	[13]
Antua River	Portugal	58–1265	[14]
Hong Lake	China	1250–4650	[15]
East Dongting Lake	China	900–2800	[15]
West Dongting Lake	China	433–2217	This study
South Dongting Lake	China	367–2316	This study

Table S2. Abundance comparison with other freshwater areas (Sediment).

Sediment	Location	Abundance (Items/kg)	Reference
Lagoon of Venice	Italy	672–2175	[16]
Rhine River	Germany	228–3763	[17]
Taihu Lake	China	11–234.6	[8]
Lake Chiusi	Italy	205–266	[7]
Lake Ontario	Canada	20–27,830	[18]
Beijiang River	China	178–544	[9]
Huangpu River	China	410–1600	[19]
Edgbaston Pool	UK	250–300	[20]
Yangtze River Esuary	China	20–340	[21]
River Thames Tributary	UK	18.5–66	[22]
Antua River	Portugal	18–619	[14]
Three Gorges Dam	China	25–300	[11]
West Dongting Lake	China	320–480	This study
South Dongting Lake	China	200–1150	This study

References

1. Moore, C.J.; Lattin, G.L.; Zellers, A. Quantity and type of plastic debris flowing from two urban rivers to coastal waters and beaches of Southern California. *Journal of Integrated Coastal Zone Management* 2011; 11: 65-73.
2. Sadri SS, Thompson RC. On the quantity and composition of floating plastic debris entering and leaving the Tamar Estuary, Southwest England. *Marine Pollution Bulletin* 2014; 81: 55-60.
3. Zhao S, Zhu L, Wang T, et al. Suspended microplastics in the surface water of the Yangtze Estuary System, China: First observations on occurrence, distribution. *Marine Pollution Bulletin* 2014; 86: 562-568.
4. Zhao S, Zhu L, Li D. Microplastic in three urban estuaries, China. *Environmental Pollution* 2015; 206: 597-604.
5. Dris R, Gasperi J, Rocher V, et al. Microplastic contamination in an urban area: a case study in Greater Paris. *Environmental Chemistry* 2015; 12: 592.
6. Baldwin AK, Corsi SR, Mason SA. Plastic Debris in 29 Great Lakes Tributaries: Relations to Watershed Attributes and Hydrology. *Environmental Science & Technology* 2016; 50: 10377-10385.
7. Fischer EK, Paglialonga L, Czech E, et al. Microplastic pollution in lakes and lake shoreline sediments-A case study on Lake Bolsena and Lake Chiuse (central Italy). *Environmental Pollution* 2016; 213: 648-657.
8. Su L, Xue Y, Li L, et al. Microplastics in Taihu Lake, China. *Environmental Pollution* 2016; 216: 711-719.
9. Wang J, Peng J, Tan Z, et al. Microplastics in the surface sediments from the Beijiang River littoral zone: Composition, abundance, surface textures and interaction with heavy metals. *Chemosphere* 2017; 171: 248-258.
10. Wang W, Ndungu AW, Li Z, et al. Microplastics pollution in inland freshwaters of China: A case study in urban surface waters of Wuhan, China. *Science of The Total Environment* 2017; 575: 1369-1374.
11. Di M, Wang J. Microplastics in surface waters and sediments of the Three Gorges Reservoir, China. *Science of The Total Environment* 2018; 616-617: 1620-1627.
12. Leslie HA, Brandsma SH, van Velzen MJM, et al. Microplastics en route: Field measurements in the Dutch river delta and Amsterdam canals, wastewater treatment plants, North Sea sediments and biota. *Environment International* 2017; 101: 133-142.
13. Su L, Cai H, Kolandhasamy P, et al. Using the Asian clam as an indicator of microplastic pollution in freshwater ecosystems. *Environmental Pollution* 2018; 234: 347-355.
14. Rodrigues MO, Abrantes N, Gonçalves FJM, et al. Spatial and temporal distribution of microplastics in water and sediments of a freshwater system (Antuã River, Portugal). *Science of The Total Environment* 2018; 633: 1549-1559.
15. Wang W, Yuan W, Chen Y, et al. Microplastics in surface waters of Dongting Lake and Hong Lake, China. *Science of The Total Environment* 2018; 633: 539-545.
16. Vianello A, Boldrin A, Guerriero P, et al. Microplastic particles in sediments of Lagoon of Venice, Italy: First observations on occurrence, spatial patterns and identification. *Estuarine, Coastal and Shelf Science* 2013; 130: 54-61.
17. Klein S, Worch E, Knepper TP. Occurrence and Spatial Distribution of Microplastics in River Shore Sediments of the Rhine-Main Area in Germany. *Environmental Science & Technology* 2015; 49: 6070-6076.
18. Ballent A, Corcoran PL, Madden O, et al. Sources and sinks of microplastics in Canadian Lake Ontario nearshore, tributary and beach sediments. *Marine Pollution Bulletin* 2016; 110: 383-395.
19. Peng G, Xu P, Zhu B, et al. Microplastics in freshwater river sediments in Shanghai, China: A case study of risk assessment in mega-cities. *Environmental Pollution* 2018; 234: 448-456.
20. Vaughan R, Turner SD, Rose NL. Microplastics in the sediments of a UK urban lake. *Environmental Pollution* 2017; 229: 10-18.
21. Peng G, Zhu B, Yang D, et al. Microplastics in sediments of the Changjiang Estuary, China. *Environmental Pollution* 2017; 225: 283-290.
22. Horton AA, Svendsen C, Williams RJ, et al. Large microplastic particles in sediments of tributaries of the River Thames, UK – Abundance, sources and methods for effective quantification. *Marine Pollution Bulletin* 2017; 114: 218-226.