Freshwater food webs amplify microplastic transfer to fish

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The following is included as supporting information for this paper:
Number of figures: 4

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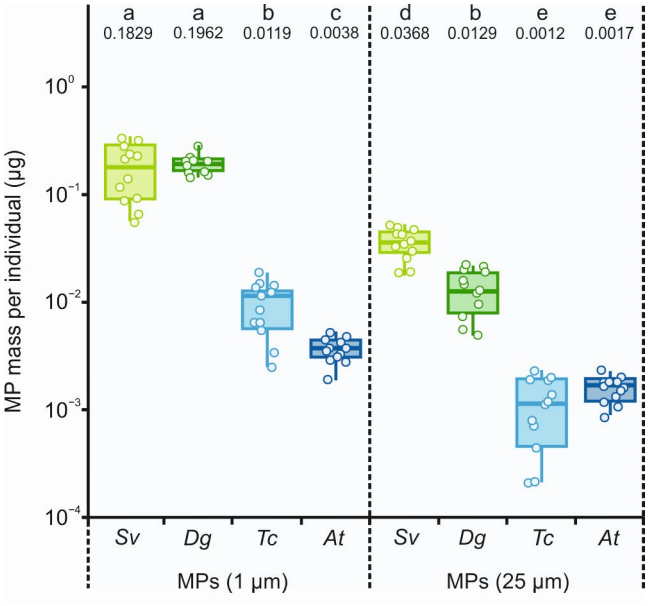
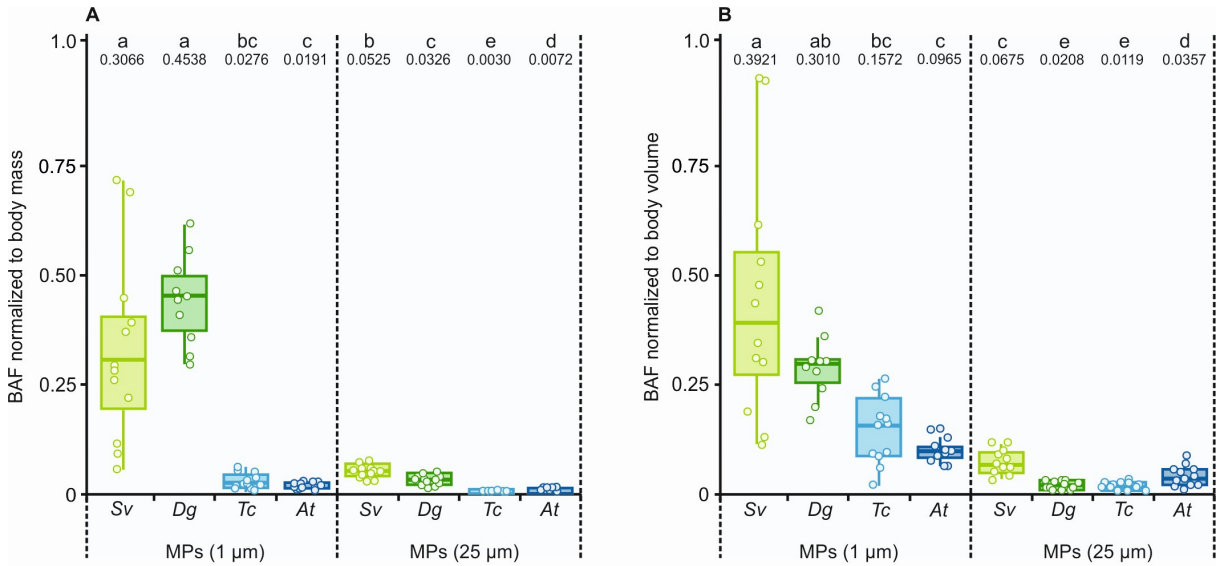
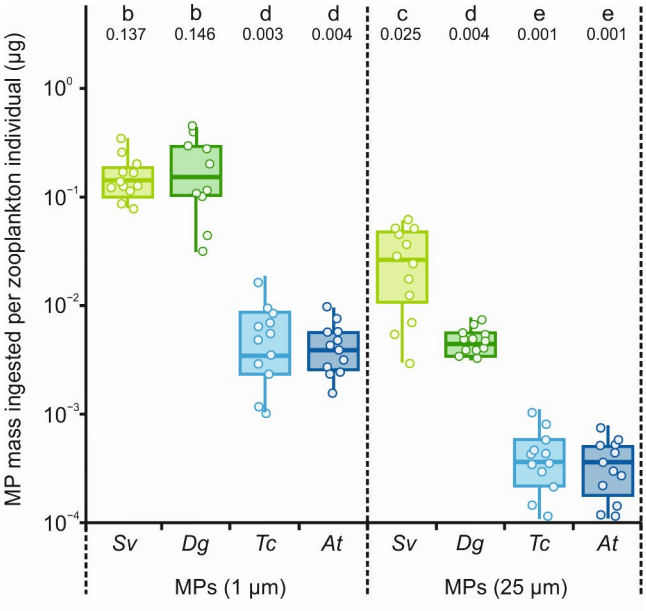


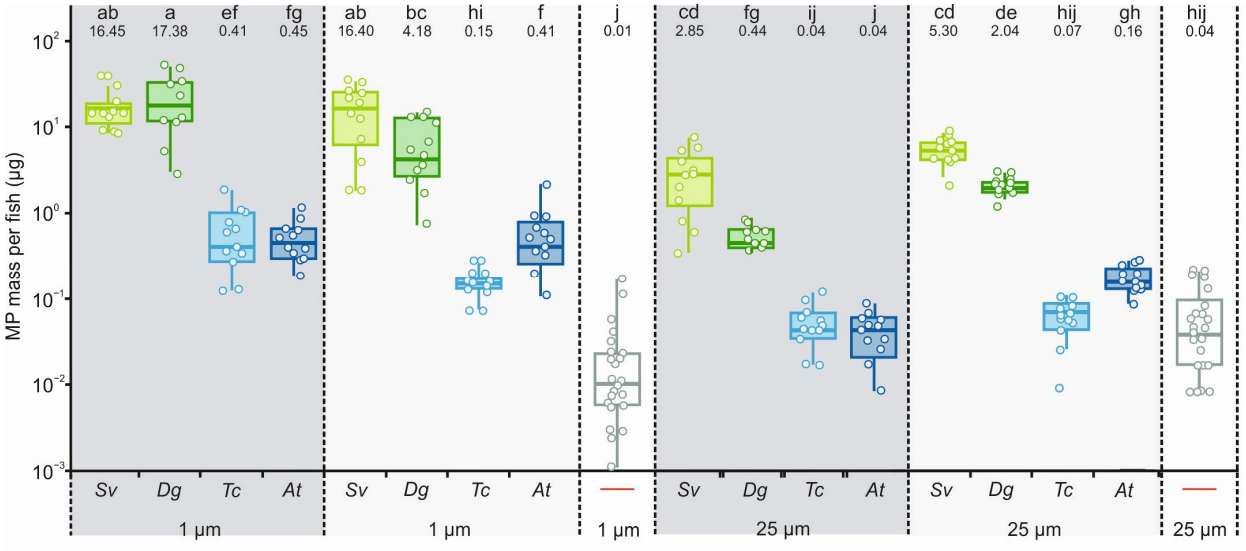
Extended Data Fig. 1 | Freshwater zooplankton ingest more microplastics per individual than marine species. Mean ingestion rates were significantly ($\alpha = 0.05$) higher in freshwater species (*Simocephalus vetulus* [*Sv*], *Daphnia galeata* [*Dg*]) than in marine copepods (*Tigriopus californicus* [*Tc*], *Acartia tonsa* [*At*]) at both tested particle sizes (1 µm and 25 µm).



Extended Data Fig. 2 | Bioaccumulation factors (BAFs) are higher in freshwater zooplankton than in marine species, particularly for smaller microplastics. BAFs were calculated based on zooplankton body mass (A) and body volume (B) across treatments varying by microplastic size (1 µm and 25 µm) and species identity: *S. vetulus* (*Sv*, light green), *D. galeata* (*Dg*, dark green), *T. californicus* (*Tc*, light blue), and *A. tonsa* (*At*, dark blue). Boxplots show median values, interquartile ranges, and data spread; treatment medians are additionally displayed above each box. Y-axes are log10-scaled. Statistically distinct groups are indicated by different lowercase letters (**see Supplementary Tables 5 and 6**).



Extended Data Fig. 3 | Trophic transfer of microplastics is more efficient via freshwater zooplankton than marine species. Fish exposed to freshwater zooplankton (*S. vetulus* [*Sv*], *D. galeata* [*Dg*]) accumulated more microplastics per prey item than those fed marine copepods (*T. californicus* [*Tc*], *A. tonsa* [*At*]), reflecting enhanced vector potential. Statistically distinct groups are denoted by different lowercase letters (**see Supplementary Tables 7 and 8**).



Extended Data Fig. 4 | Fish ingest more microplastics via trophic transfer, particularly from freshwater zooplankton. Microplastic mass in the fish gut across treatments differing by particle size (1 µm and 25 µm), zooplankton species (*S. vetulus* [*Sv*], *D. galeata* [*Dg*], *T. californicus* [*Tc*], *A. tonsa* [*At*]), and exposure mode. Background shading indicates trophic transfer (dark grey), direct ingestion in the presence of zooplankton (light grey), and direct ingestion without zooplankton (white; control = C). Boxplots display median values, interquartile ranges, and full data spread; treatment medians are shown above each box. Y-axis is log10-scaled. Statistically distinct groups are denoted by different lowercase letters (**see Supplementary Tables 7 and 8**).