Table 1: The capacity for a range of zooplankton to ingest microplastics was demonstrated using fluorescent microscopy. Microplastic uptake is based upon the number of individuals in a treatment (*n* = ≥6) that contained beads in their alimentary canals or body cavity following 1 or 24 hour exposures to either 7.3, 20.6 or 30.6 µm fluorescent polystyrene beads. ESD = Equivalent Spherical Diameter. Scoring system: Yes (>50%); Partial (<50%); No (0%).

Figure 1: Microplastics of different sizes can be ingested, egested and adhere to a range of zooplankton, as visualised using fluorescence microscopy: (i) the copepod *Centropages typicus* containing 7.3 µm polystyrene (PS) beads (dorsal view); (ii) the copepod *Calanus helgolandicus* containing 20.6 µm PS beads (lateral view); (iii) a D-stage bivalve larvae containing 7.3 µm PS beads (dorsal view); (iv) a Brachyuran (decapod) larvae (zoea stage) containing 20.6 µm PS beads (lateral view); (v) a Porcellanid (decapod) larvae, containing 30.6 µm PS beads (lateral view); (vi) 30.6 µm PS beads in the posterior-gut of the copepod *Temora longicornis* during egestion, (vii) 1.4 µm PS beads trapped between the filamental hairs of the furca of *C. typicus*; (viii) a *T. longicornis* faecal pellet containing 30.6 µm PS beads; (ix) proportion of copepods (*Acartia clausi*, *Calanus helgolandicus*, *Centropages typicus* and *Temora longicornis*) with microplastics in their guts following 24 hours of exposure to 7.4, 20.6 and 30.6 µm polystyrene beads. ∗ denotes statistically significant (*P* ≤ 0.05) lower consumption of larger beads compared with that of 7.3 µm beads. Scale bar (grey line): 100 µm.

Figure 2: Coherent anti-Stokes Raman scattering (CARS) microscopy: (i) Spontaneous [•] and stimulated [•] peaks for polystyrene beads, Raman shifts of 2845 cm^{-1} (C-H) and 3050 cm^{-1} (aromatic C-H) were used to visualise the polystyrene; (ii) 3.4 µm microplastics accumulated in the alimentary canal [ac] of the copepod *Temora longicornis* (yellow dots); beads further adhered to the exterior of the copepod's urosome [u], furca [f] and posterior swimming legs [sl] (blue dots); (ii) 3.4 µm microplastics (red dots) adhered to the external surface of the posterior swimming legs of *T. longicornis*. Scale bar [grey line]: 50 µm.

Figure 3: Exposure to increasing concentrations of microplastics in the copepod *Centropages typicus* (*n* = ≥5). Treatments comprise seawater containing natural assemblages of algae [A] with 4,000 [B], 7,000 [C], 11,000 [D] and 25,000 [E] 7 µm polystyrene beads per ml. ∗ denotes statistically significant (*P* ≤ 0.05) lower ingestion rates (cells $individual^{-1}$ $hour^{-1}$) than in controls. Graphs show ingestion rates of: (i) *Synechococcus* sp.; (ii) Picoeukaroytes; (iii) all algae present; (iv) plot comparing positive *C. typicus* algal ingestion rates at differing microplastics concentrations - logarithmic regression: R^2 = 0.70 (*P* ≤ 0.05).