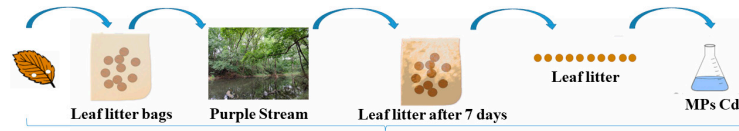
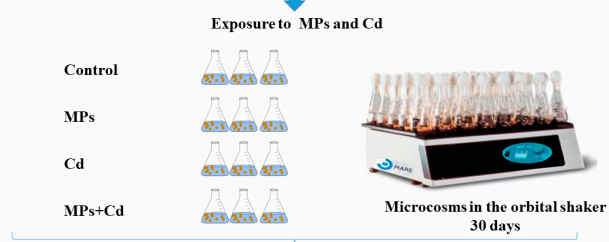


Supplementary Materials

(A) Leaf litter microbial colonization



(B) Leaf litter decomposition



(C) Invertebrates feeding assay

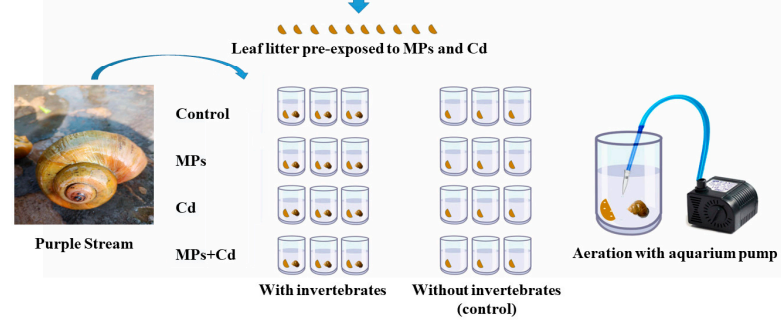


Figure S1. Experimental setup and flow.

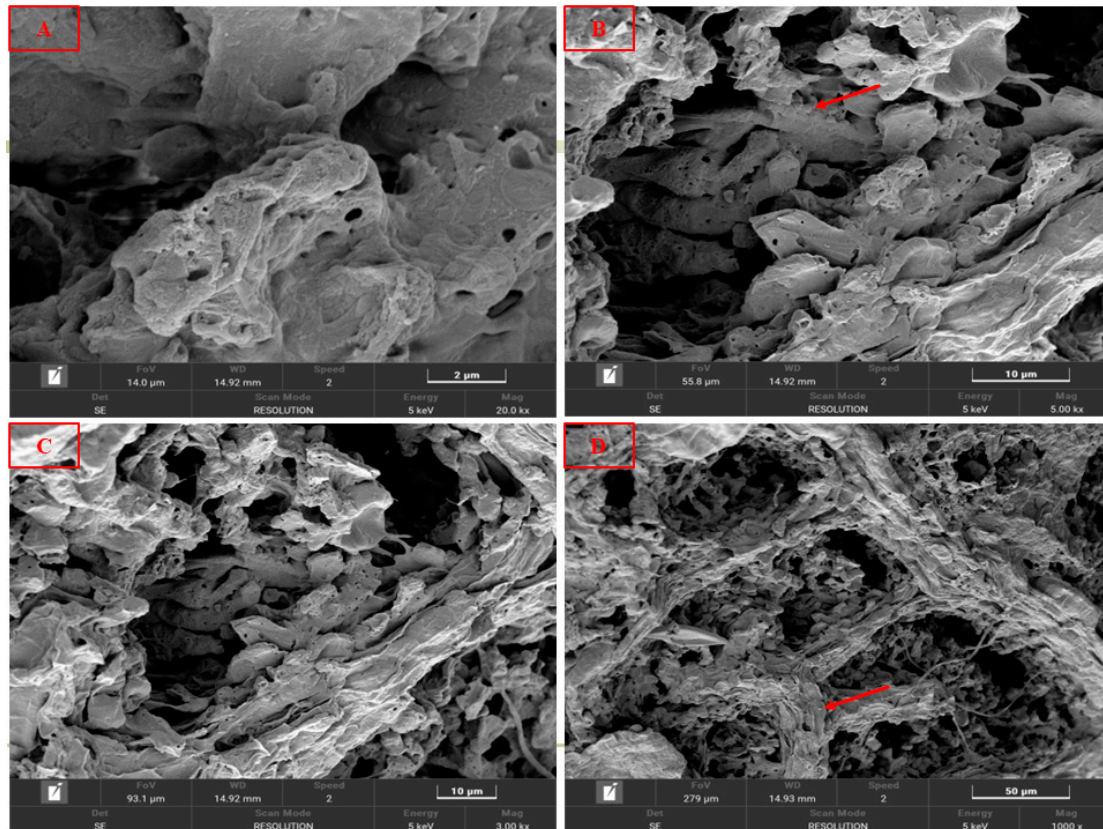


Figure S2. SEM images of litter surface structure. The red arrows in Figure B and D point to microplastic particles.

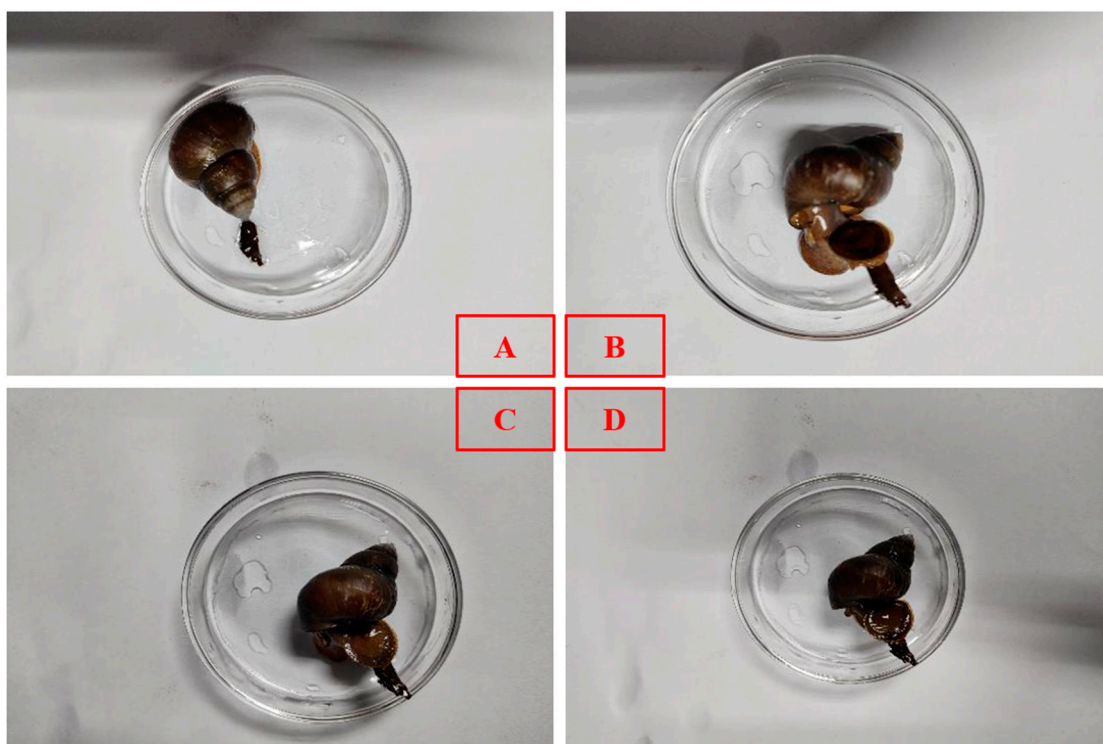


Figure S3. Feeding process of *Cipangopaludina chinensis*. (A) Near litter; (B) Open mouse; (C) Bite litter; (D) Chew litter.

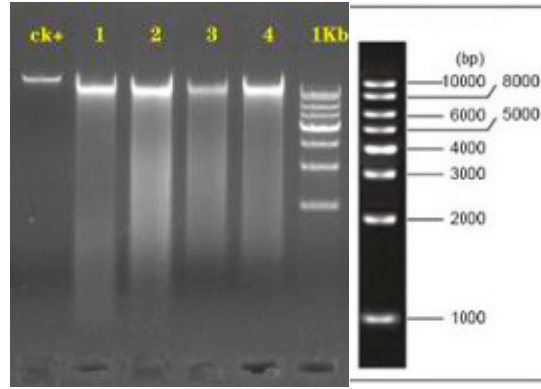


Figure S4. Agarose gel electrophoresis detection and band distribution diagram.

Table S1. Physicochemical properties of Zijin Mountain stream water.

Index	Value
Temperature	22.8 °C
pH	7.5
Conductivity	680.1 μ s/cm
Dissolved Oxygen	8.16 mg/L
Redox Potential	77.3 mV

Table S2. Experimental setup.

Group	Micropollutant	Concentration (μ g/L)
A	Control	0
B	MPs	30
C	Cd	15
D	MPs+Cd	30+15

Table S3. PCR primer information.

Sequencing region	Primer name	Primer sequence
ITS1F_ITS2R	ITS1F	CTTGGTCATTAGAGGAAGTAA
	ITS2R	GCTGCGTTCTTCATCGATGC