

Table S1 Sampling information of seawater samples from Korea and China

Sampling Day	Sampling Region		Sample ID	Latitude (N)	Longitude (E)
2022.12.01	Wando, Korea	Bogildo	WA1	34.139535	126.613365
11:00 to 12:00			WA2		
			WA3		
			WA4		
			WA5		
2022.12.02			Rongcheng, China		
10:00 to 13:00	AB2				
	AB3				
	AB4				
	AB5				
	Lidao Bay	LB1		37.339227	122.695365
		LB2			
		LB3			
		LB4			

Table S2 OTU and read number information of seawater samples.

Sampling Region		Sample ID	Number of OTUs	Number of Reads
Korea	Wando	WA1	6,538	277,959
		WA2	5,470	221,079
		WA3	6,962	295,589
		WA4	5,306	174,590
		WA5	7,414	243,435
China	Ailian Bay	AB1	5,445	300,016
		AB2	6,275	328,607
		AB3	5,196	255,847
		AB4	4,530	169,736
		AB5	6,023	293,355
	Lidao Bay	LB1	5,757	302,174
		LB2	5,210	251,542
		LB3	4,116	167,079
		LB4	4,419	259,550

Table S3 Result of taxonomic analysis of each sample classified into OTUs from Kingdom to Species level.
(excel file)

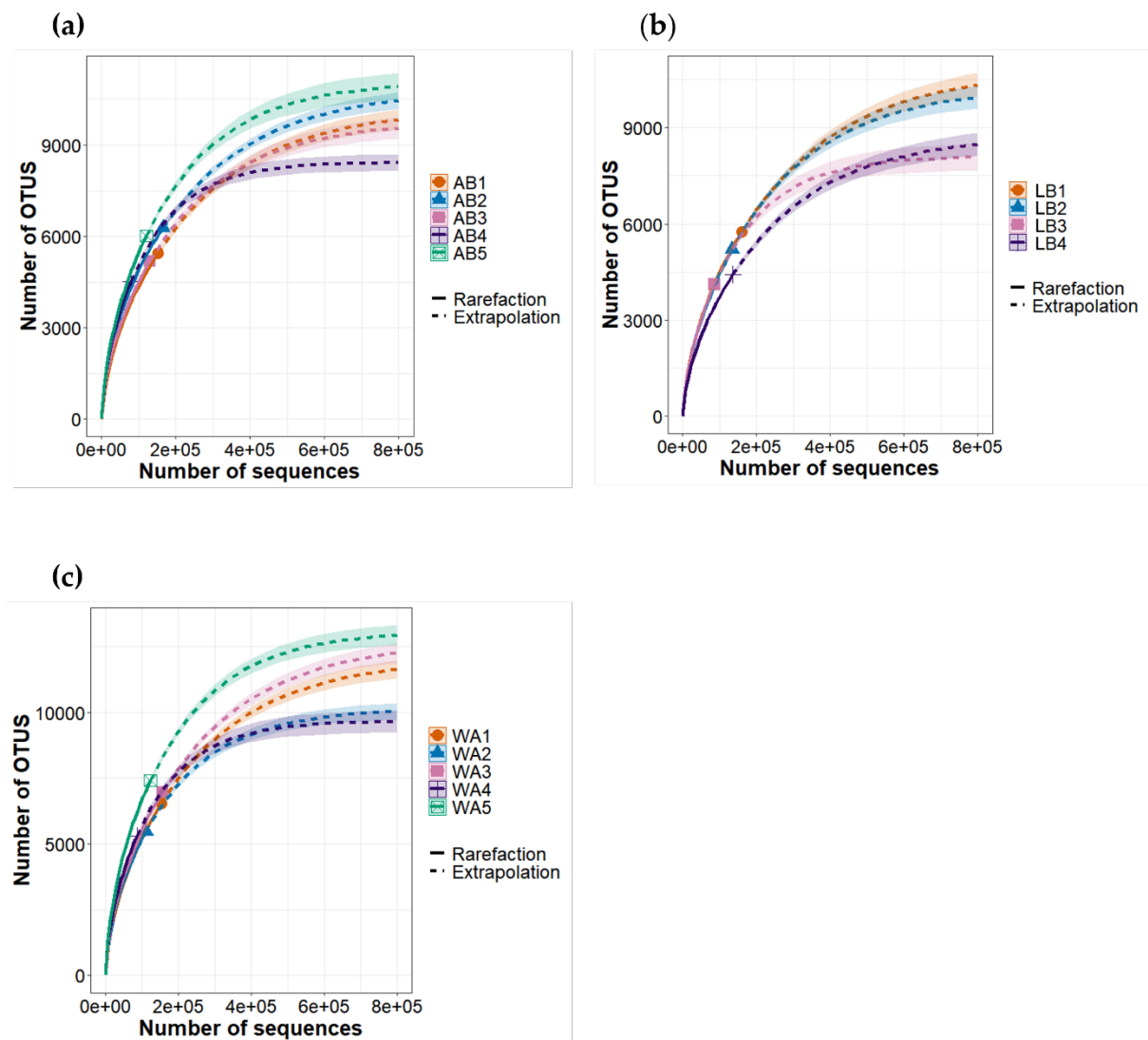


Figure S1 Rarefaction and extrapolation curves of OTUs at 97% similarity for each seawater sample from **(a)** AB, **(b)** LB, and **(c)** WA.