

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Datasets information

File Name: Supplementary Data 2

Description: Summary of the assembled contigs of the 101 biofilm and 24 new seawater Metagenomes

File Name: Supplementary Data 3

Description: List of all OTUs generated by the 16S miTags and used for Venn diagram Comparison

File Name: Supplementary Data 4

Description: Phylum-level composition of the biofilm and seawater microbial communities based on 16S miTags

File Name: Supplementary Data 5

Description: Phylum-level composition of the biofilm and seawater microbial communities based on 16S miTags normalized by copy number and gene length. Relative abundance is given

File Name: Supplementary Data 6

Description: Phylum-level composition of the biofilm and seawater microbial communities based on protein-coding marker genes

File Name: Supplementary Data 7

Description: The OTU table based on rarefied (10,000 miTags per samples) miTags

File Name: Supplementary Data 8

Description: The OTU table (relative abundance) based on total miTags extracted from forward metagenome files of the 101 biofilm and 91 seawater samples

File Name: Supplementary Data 9

Description: The biofilm core functions

File Name: Supplementary Data 10

Description: Antibiotic resistance genes identified from the biofilm core functions

File Name: Supplementary Data 11

Description: The OTUs generated by metagenomic sequencing of laboratory-cultured biofilms and free-living microbes

File Name: Supplementary Data 12

Description: The number of biofilm-specific COGs generated by comparative metagenomic analysis of laboratory-cultured biofilm and free-living microbes

File Name: Supplementary Data 13

Description: Information of the 479 genomes recovered from the biofilm metagenomes

File Name: Supplementary Data 14

Description: Biosynthetic gene clusters identified from genomes

File Name: Supplementary Data 15

Description: CRISPR arrays identified from genomes