

DOI: 10.4081/aiol.2017.7211

SUPPLEMENTARY MATERIAL

Surfing and dining on the “plastisphere”: Microbial life on plastic marine debris

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Supplementary Tab. 1. Site, area, name of the corresponding OSD site, location (latitude and longitude), and details of OSD metagenomes here analysed.

Site	Area	OSD site	Lat (N)	Long (E)	ENA Accession number	MG reads after quality check	Total annotated GOs	Reads with InterPro match
Naples	Western Mediterranean Sea	OSD4	40.808	14.25	ERR771008	1,010,720	825,428	444,060
Crete	Eastern Mediterranean Sea	OSD5	35.661	24.99	ERR770999	960,546	702,774	357,976
Papeete	Southern Pacific Ocean	OSD7	-17.2894	-149.5399	ERR770980	1,534,509	721,347	589,675
Bengala Gulf	Indian Ocean	OSD28	16.8026	88.0817	ERR771018	833,338	918,305	452,983
Miami	Northern Atlantic Ocean	OSD37	26.1029	-80.0932	ERR771011	1,516,970	1,283,283	677,020
Hawaii	Northern Pacific Ocean	OSD56	21.2888	-156.8636	ERR770991	1,500,133	1,136,066	629,290
Marghera Port	Eastern Mediterranean Sea	OSD69	45.4568	12.2605	ERR770981	1,121,452	591,020	334,372
Singapore	Indian Ocean	OSD95	1.2685	103.9168	ERR770962	1,075,391	656,841	371,358
Azores	Atlantic Ocean	OSD96	35.661	24.99	ERR770961	3,482,684	1,192,282	613,632
Iceland	Northern Atlantic Ocean	OSD106	65.9449	-22.4192	ERR771099	795,432	447,783	252,462
Rio de Aveiro	Atlantic Ocean	OSD111	40.6599	-8.7038	ERR771093	1,032,918	678,531	385,024
Shikmona	Eastern Mediterranean Sea	OSD123	32.822	32.954	ERR771085	935,663	519,094	328,921
Osaka	Pacific Ocean	OSD124	34.3244	135.1208	ERR771084	802,437	602,166	335,208

Supplementary Tab. 2. Selected genes for microbially-mediated plastic degradation identified by Bryant *et al.* (2016) in the marine environment, and considered in this work.

Functions	InterPro number	KEGG Enzyme	KEGG number	GO annotation
Protocatechuate 3,4-dioxygenase	IPR024756 IPR012785 P15109 IPR012786	1.13.11.3	K00448 K00449	GO:0018578 GO:0018579 GO:0018560
Homogentisate 1,2-dioxygenase	IPR005708 IPR022950	1.13.11.5	K00451	GO:0004411
2,4-dichlorophenol 6-monooxygenase	IPR002938 IPR036188	1.14.13.20	K10676	GO:0018666
N-ethylmaleimide reductase	IPR013785 IPR001155	-	K10680	GO:0008748
Cytochrome p450/NADPH-cytochrome p450 reductase	IPR023208	1.6.2.4	K14338	-