

TABLE S2

Metagenome	Sample	Contigs > 5kb	Bacterial contigs > 5b	MG (Bacteria)	Unknown contigs > 5kb	MB (Unknown)	Accession number
Biofilm_SRR68699040	biofilm	7332	5132	44,217323	1515	10,634558	SRR68699040
Biofilm_SRR68699041	biofilm	2294	1415	13,217331	710	5,273439	SRR68699041
Biofilm_SRR68699042	biofilm	1564	1064	10,469945	332	2,391612	SRR68699042
Biofilm_SRR68699043	biofilm	1797	998	8,077053	638	4,355894	SRR68699043
Biofilm_SRR68699392	biofilm	1142	1071	8,957295	64	0,43748	SRR68699392
coral_Cyphastrea_Australia	coral	48681	2586	40,227351	23800	238,428362	Ga0126342
coral_Diploira_Mexico	coral	22810	184	1,832631	6321	48,085181	Ga0126337
coral_Orbicella_Mexico_2	coral	17237	340	4,85751	181	1,245485	Ga0126339
coral_Siderastrea_Mexico	coral	17578	96	0,726341	3474	23,500346	Ga0126336
Oculina	coral	63550	1417	24,787781	33013	282,049183	
Hydrothermal_Vent	hydrothermal vent	15160	10120	204,904932	2817	22,526008	LWDU100000
hydrothermal_vent_Pacific	hydrothermal vent	1410230	9647	129,832474	2148	16,385741	Ga0256914
POSEIODN_MEGAHit	Posidonia oceanica t	76447	60269	720,022941	11400	88,485206	
IndianOcean_DCM_038	Seawater DCM	4990	1546	14,112528	821	5,779911	CEPW01000000
IndianOcean_DCM_039	Seawater DCM	3193	944	8,400607	801	5,697172	CEPT01000000
MedSea_DCM_007	Seawater DCM	2588	1374	16,427499	549	4,079476	CENT01000000
MedSea_DCM_018	Seawater DCM	6931	4283	47,203671	1348	9,990169	CENX01000000
MedSea_DCM_030	Seawater DCM	8184	5522	62,807747	1274	9,334837	CENP01000000
NorthAtlantic_DCM_150	Seawater DCM	2863	1253	13,837122	721	5,407317	CEVT01000000
NorthAtlantic_DCM_151	Seawater DCM	3417	1674	15,052545	712	5,267643	CEVU01000000
NorthPacific_DCM_137	Seawater DCM	7729	5277	60,006211	1551	11,417993	CEUC01000000
NorthPacific_DCM_142	Seawater DCM	3891	2241	21,851128	774	5,459954	CETU01000000
RedSea_DCM_032	Seawater DCM	5662	3025	35,886614	1372	10,322949	CENY01000000
RedSea_DCM_034	Seawater DCM	9914	5777	69,727543	2195	16,686729	CEOQ01000000
SouthAtlantic_DCM_068	Seawater DCM	2147	1032	9,415607	288	2,053932	CERG01000000
SouthAtlantic_DCM_072	Seawater DCM	3490	1877	16,766896	605	4,341526	CERB01000000
SouthPacific_DCM_100	Seawater DCM	5002	3281	41,18874	732	5,250385	CESQ01000000
SouthPacific_DCM_112	Seawater DCM	3821	2221	26,048816	691	4,789652	CETB01000000
IndianOcean_MES_038	Seawater mesopelag	3503	2309	29,737022	767	5,828445	CEPS01000000
IndianOcean_MES_039	Seawater mesopelag	4602	2921	41,273357	1029	7,88197	CEPV01000000
NorthAtlantic_MES_149	Seawater mesopelag	1463	1189	12,599682	192	1,257178	CEVK01000000
NorthPacific_MES_137	Seawater mesopelag	5122	3367	38,703165	1134	8,275554	CEUD01000000
NorthPacific_MES_142	Seawater mesopelag	2232	1955	24,963987	205	1,465809	CEVI01000000
SouthAtlantic_MES_068	Seawater mesopelag	2014	1601	17,442553	284	1,916479	CERL01000000
SouthAtlantic_MES_076	Seawater mesopelag	2855	2399	26,864071	322	2,213739	CEQH01000000
SouthPacific_MES_100	Seawater mesopelag	8409	5769	65,819252	1564	11,583093	CESR01000000
SouthPacific_MES_112	Seawater mesopelag	3442	2746	31,61823	483	3,498601	CETR01000000

AntarticOcean_surface_coast	Seawater surface	3047	1378	20,113468	933	7,466276	Ga0308008
IndianOcean_surface_041	Sewater surface	2017	1030	8,212311	513	3,632391	CEPU01000000
IndianOcean_surface_048	Sewater surface	3061	1811	16,398871	653	4,647972	CEPJ01000000
MedSea_surface_007	Sewater surface	3338	2023	17,742584	548	3,935173	CENG01000000
MedSea_surface_018	Sewater surface	6017	3798	40,182327	1114	7,991054	CEOF01000000
MedSea_surface_030	Sewater surface	9579	5562	47,173474	2125	14,806006	CEOK01000000
NorthAtlantic_surface_149	Sewater surface	3357	1359	12,788526	753	5,422339	CEVW01000000
NorthAtlantic_surface_150	Sewater surface	2186	879	6,847251	532	3,599874	CEVP01000000
NorthPacific_surface_137	Sewater surface	3530	1819	16,400411	930	6,686875	CEUH01000000
NorthPacific_surface_142	Sewater surface	4225	2531	34,199361	803	5,85854	CEVN01000000
RedSea_surface_032	Sewater surface	2827	1224	11,180951	614	4,397674	CENW01000000
RedSea_surface_034	Sewater surface	2940	1097	9,003027	579	4,070107	CEON01000000
SouthAtlantic_surface_066	Sewater surface	2151	1088	9,103025	341	2,361554	CERW01000000
SouthAtlantic_surface_072	Sewater surface	2349	873	9,425581	646	4,66364	CEQT01000000
SouthPacific_surface_100	Sewater surface	6425	4202	48,928392	1103	7,983809	CESV01000000
SouthPacific_surface_112	Sewater surface	2102	1202	16,880149	400	2,737982	CETL01000000
permafrost_2	soil	1652	1425	15,967421	168	1,141176	Ga0066789
permafrost_3	soil	3572	3118	27,891715	343	2,366398	Ga0066797
Soil_Forest_Indiana	soil	1724	1508	18,531835	176	1,529276	Ga0247671
Soil_Grassland_california	soil	5661	4627	45,425835	738	5,152709	Ga0209238
Soil_wetland_Ohio	soil	28036	23836	196,677956	2923	19,477278	Ga0316622
Sponge_Aplisia	sponge	7915	6656	135,145331	960	7,726991	Ga0209022
Sponge_HydrothermalVent	sponge	3858	845	7,386993	1785	12,467062	VSKX01000000
Sponge_MedSea	sponge	6787	5909	109,561202	739	5,526052	LXNI01000000