

**Supplementary Table S3.** Enzymes identified, and genus assignment retrieved from the metagenome of the diesel-degrading bacterial consortium

Contig ID	Start	End	Strand	Size (bp)	Relevant closest relative Organism   % identity   % coverage	Genus assignment
Alkyl group hydroxylases						
Alkane-1 monooxygenase (EC 1.14.15.3)						
6	166087	167259	+	1173	<i>Pseudomonas mendocina</i> ymp   84%   93%	<i>Pseudomonas</i>
10	173320	174468	+	1149	<i>Pseudomonas aeruginosa</i> DK2   100%   100%	<i>Pseudomonas</i>
28	200801	201937	-	1137	<i>Pseudomonas aeruginosa</i> Pa58   86%   95%	<i>Pseudomonas</i>
155	32852	34018	+	1167	<i>Aquabacterium parvum</i> B6   64%   99%*	<i>Aquabacterium</i>
213	6803	7966	+	1164	<i>Pseudomonas</i> sp. HAR-UPW-AIA-41   75%   97%*	<i>Pseudomonas</i>
213	8720	9907	-	1188	<i>Aquabacterium parvum</i> B6   96%   100%*	<i>Aquabacterium</i>
213	12868	13122	-	255	<i>Aquabacterium parvum</i> B6   94%   94%*	<i>Aquabacterium</i>
257	24756	25889	+	1134	<i>Pseudomonas aeruginosa</i> Pa1242   100%   100%	<i>Pseudomonas</i>
2908	2582	3685	+	1104	<i>Sphingobium</i> sp. PNB   100%   100%	<i>Shingobium</i>
6706	194	1090	-	897	<i>Sphingomonas</i> sp. P2   100%   100%	<i>Sphingomonas</i>
Total						10
Long-chain alkane monooxygenase (EC 1.14.14.5)						
1	175638	176786	-	1149	<i>Pseudomonas aeruginosa</i> C-NN2   100%   100%	<i>Pseudomonas</i>
10	141266	142348	+	1083	<i>Pseudomonas aeruginosa</i> NHmuc   100%   100%	<i>Pseudomonas</i>
10	143312	144394	+	1083	<i>Pseudomonas aeruginosa</i> Ocean-1155   100%   100%	<i>Pseudomonas</i>
28	61150	62298	-	1149	<i>Pseudomonas resinovorans</i> NBRC 106553   92%   98%	<i>Pseudomonas</i>
49	124320	125399	+	1080	<i>Pseudomonas aeruginosa</i> PA83   99%   100%	<i>Pseudomonas</i>
70	59224	60369	+	1146	<i>Pseudomonas aeruginosa</i> Pa84   100%   100%	<i>Pseudomonas</i>
76	81011	81949	+	939	<i>Novosphingobium</i> sp. AP12   82%   100%*	<i>Novosphingobium</i>
76	81964	83118	+	1155	<i>Sphingomonas</i> sp. MM-1   77%   96%	<i>Sphingomonas</i>
142	56674	57831	+	1158	<i>Pseudomonas resinovorans</i> NBRC 106553   92%   97%	<i>Pseudomonas</i>
189	34214	35338	-	1125	-	Unassigned
336	8193	9386	+	1194	<i>Rhizobacter gummiphilus</i> NS21   86%   96%	<i>Rhizobacter</i>
429	17394	18482	+	1089	<i>Sphingobium</i> sp. YBL2   85%   97%	<i>Sphingobium</i>
609	9134	10231	-	1098	<i>Sphingomonas taxi</i> ATCC 55669   81%   98%	<i>Sphingomonas</i>
616	13791	14888	+	1098	<i>Cupriavidus nantongensis</i> X1   93%   100%	<i>Cupriavidus</i>
662	117	1109	+	993	<i>Pseudomonas citronellolis</i> SJTE-3   83%   97%	<i>Pseudomonas</i>
698	4296	5387	-	1092	<i>Bordetella pseudohinzii</i> HI4681   81%   97%	<i>Bordetella</i>
1242	3909	5108	+	1200	<i>Mesorhizobium loti</i> TONO   77%   86%	<i>Mesorhizobium</i>
1557	2241	3302	-	1062	<i>Rhizobium leguminosarum</i> Vaf-108   76%   95%	<i>Rhizobium</i>
2589	1108	2271	-	1164	<i>Cupriavidus</i> sp. N-1   92%   100%	<i>Cupriavidus</i>
8833	16	1425	+	1410	<i>Caulobacter segnis</i> ATCC 21756   85%   77%	<i>Caulobacter</i>
16274	61	978	+	918	<i>Xanthobacter autotrophicus</i> Py2   81%   99%	<i>Xanthobacter</i>
27781	487	750	-	264	<i>Delftia acidovorans</i> ANG1   99%   100%	<i>Delftia</i>
31735	537	686	-	150	<i>Bordetella hinzii</i> H568   85%   70%	<i>Bordetella</i>
32955	233	652	-	420	<i>Niveispirillum cyanobacteriorum</i> TH16   97 %   66%*	<i>Niveispirillum</i>
40409	128	595	+	468	<i>Cupriavidus nantongensis</i> X1   83%   55%	<i>Cupriavidus</i>
40618	41	571	-	531	<i>Sphingomonas</i> sp. 66-10   81%   100%*	<i>Sphingomonas</i>
80049	11	277	+	267	<i>Achromobacter xylosoxidans</i> NCTC10807   98%   100%	<i>Achromobacter</i>
85652	103	381	-	279	<i>Niveispirillum cyanobacteriorum</i> TH16   91 %   100%*	<i>Niveispirillum</i>
91760	5	253	+	249	<i>Cupriavidus</i> sp. USMAA1020   79%   63%	<i>Cupriavidus</i>
Total						29
Cytochrome P450 / Alkane hydroxylase (EC 1.14.--)						
9078	387	1643	-	1257	<i>Sphingobium macrogoltabida</i> HXN-200   97%   100%	<i>Sphingobium</i>
2344	2533	3798	+	1266	<i>Parvibaculum lamentivorans</i> DS-1   77%   96%	<i>Parvibaculum</i>
323	1307	2560	+	1254	<i>Parvibaculum lamentivorans</i> DS-1   94%   100%	<i>Parvibaculum</i>
2593	3099	4364	+	1266	<i>Parvibaculum lamentivorans</i> DS-1   98%   100%	<i>Parvibaculum</i>
1052	2737	4002	+	1266	<i>Parvibaculum lamentivorans</i> DS-1   96%   100%	<i>Parvibaculum</i>
445	2891	4171	+	1281	<i>Parvibaculum lamentivorans</i> DS-1   90%   86%	<i>Parvibaculum</i>
1645	1782	3035	-	1254	<i>Cupriavidus</i> sp. K31   76%   72%	<i>Cupriavidus</i>
84	45064	46602	+	1539	-	Unassigned
Total						8
Methane, Butane and Propane Monooxygenases (EC 1.14.13.25)						
662	9850	11511	+	1661	<i>Methylibium petroleiphillum</i> PM1   92%   99%	<i>Methylibium</i>
Total						1
Extradiol aromatic-ring-cleavage dioxygenases						
Catechol 2,3-dioxygenase (EC 1.13.11.2)						
94	3098	4000	-	903	<i>Sphingomonas sanxanigenens</i> NX02   84%   99%	<i>Sphingomonas</i>
286	28935	29837	+	903	<i>Sphingomonas sanxanigenens</i> NX02   84%   100%	<i>Sphingomonas</i>
1168	10485	11480	-	996	<i>Delftia tsuruhatensis</i> CM13   77%   90%	<i>Delftia</i>
1320	3582	4535	-	954	-	Unassigned
1985	6151	7095	-	945	<i>Variovorax boronicumulans</i> J1   78%   84%	<i>Variovorax</i>
2305	119	1060	-	942	-	Unassigned
2395	5777	6283	+	507	<i>Variovorax boronicumulans</i> J1   83%   93%	<i>Variovorax</i>
2880	2921	3865	+	945	<i>Variovorax boronicumulans</i> J1   78%   84%	<i>Variovorax</i>
3266	2093	3016	+	924	<i>Sphingomonas</i> sp. DN1   99%   100%	<i>Sphingomonas</i>
13885	77	1054	+	978	<i>Delftia tsuruhatensis</i> CM13   99%   100%	<i>Delftia</i>
39506	421	612	-	192	-	Unassigned
68221	73	201	+	129	<i>Variovorax boronicumulans</i> J1   97%   100%	<i>Variovorax</i>
4176	1509	2411	+	903	-	Unassigned

4512	1967	2509	+	543	<i>Variovorax</i> sp. HW608   76%   76%	<i>Variovorax</i>
35292	22	579	+	558	<i>Variovorax paradoxus</i> B4	<i>Variovorax</i>
57	13059	13472	-	414	<i>Pseudomonas resinovorans</i> NBRC 106553   84%   94%	<i>Pseudomonas</i>
148	17832	18767	+	936	<i>Sphingobium</i> sp. EP60837   81%   94%	<i>Sphingobium</i>
					Total	17
Biphenyl-2,3-diol 1,2-dioxygenase (EC 1.13.11.39)						
31	61506	62048	-	543	-	Unassigned
547	9686	10630	+	945	-	Unassigned
820	9954	10424	-	471	<i>Achromobacter xylosoxidans</i> A8   80%   94%	<i>Achromobacter</i>
877	4763	5326	-	564	-	Unassigned
1144	9750	10322	-	573	-	Unassigned
2260	2755	3234	-	480	<i>Acidovorax avenae</i> ATCC 19869   82%   95%	<i>Acidovorax</i>
2322	146	616	-	471	-	Unassigned
32214	86	664	+	579	<i>Sphingopyxis</i> sp. UC10   95%   100%	<i>Sphingopyxis</i>
32	165870	166250	-	381	<i>Pseudomonas aeruginosa</i> NHmuc   100%   100%	<i>Pseudomonas</i>
1650	2193	2573	+	381	<i>Achromobacter denitrificans</i> PR1   99%   100%	<i>Achromobacter</i>
2007	3764	4144	-	381	<i>Alicyclophilus denitrificans</i> K601   83%   96%	<i>Alicyclophilus</i>
31	70052	71191	+	1140	-	Unassigned
1124	4188	5087	-	900	<i>Sphingobium</i> sp. PNB   99%   100%	<i>Sphingobium</i>
1283	7482	8438	+	957	<i>Burkholderia cepacia</i> R34   76%   98%	<i>Burkholderia</i>
1824	4253	5152	+	900	<i>Sphingomonas</i> sp. DN1   100%   100%	<i>Sphingomonas</i>
2335	943	1527	-	585	<i>Cupriavidus basilensis</i> 4G11   82%   90%	<i>Cupriavidus</i>
3841	1379	2311	-	933	<i>Bordetella</i> sp. SCN 67-23   94%   98%*	<i>Bordetella</i>
46718	168	563	-	396	<i>Parvibaculum lavamentivorans</i> DS-1   100%   100%	<i>Parvibaculum</i>
68805	73	399	+	327	-	Unassigned
85055	109	339	-	231	<i>Phenylobacterium</i> sp. Root1277   91%   100%	<i>Phenylobacterium</i>
36	199468	200358	+	891	<i>Pseudomonas resinovorans</i> NBRC 106553   89%   100%	<i>Pseudomonas</i>
532	10366	11280	+	915	<i>Sphingobium</i> sp. EP60837   81%   98%	<i>Sphingobium</i>
746	5908	6789	+	882	-	Unassigned
1382	8342	9307	+	966	<i>Bordetella</i> sp. SCN 67-23   94%   100%*	<i>Bordetella</i>
1730	5146	5973	+	828	<i>Bordetella</i> sp. SCN 67-23   87%   100%*	<i>Bordetella</i>
16922	14	1048	-	1035	<i>Acidovorax</i> sp. KKS102   98%   100%	<i>Acidovorax</i>
22706	19	429	+	411	<i>Achromobacter denitrificans</i> A41   87%   100%	<i>Achromobacter</i>
					Total	27
3-carboxyethylcatechol 2,3-dioxygenase (EC 1.13.11.16)						
544	3324	4283	+	960	<i>Bordetella</i> sp. SCN 67-23   94%   99%*	<i>Bordetella</i>
621	12338	13423	+	1086	-	Unassigned
715	10683	11630	+	948	-	Unassigned
1036	9719	10693	-	975	<i>Achromobacter denitrificans</i> PR1   99%   100%	<i>Achromobacter</i>
1946	6387	7481	+	1095	<i>Bordetella</i> sp. SCN 67-23   98%   100%*	<i>Bordetella</i>
1984	7205	7546	-	342	<i>Bordetella</i> sp. SCN 67-23   96%   100%*	<i>Bordetella</i>
6446	1021	2094	-	1074	<i>Bordetella</i> sp. SCN 67-23  96%   100%	<i>Bordetella</i>
					Total	7
3-hydroxyanthranilate 3,4-dioxygenase (EC 1.13.11.6)						
25	29738	30268	+	531	<i>Dockdonella koreensis</i> DS-123   91%   97%	<i>Dockdonella</i>
141	2980	3552	+	573	<i>Pseudomonas</i> sp. St29   89%   97%	<i>Pseudomonas</i>
1169	5910	6461	+	552	<i>Achromobacter denitrificans</i> PR1   97%   96%	<i>Achromobacter</i>
4136	1703	2212	+	510	<i>Bordetella</i> sp. SCN 67-23*	<i>Bordetella</i>
4675	2913	3260	-	348	<i>Pseudorhodoferax</i> sp. Leaf265   95%   100%*	<i>Pseudorhodoferax</i>
4751	453	986	+	534	<i>Bordetella</i> sp. SCN 67-23*	<i>Bordetella</i>
7407	244	765	+	522	<i>Stenotrophomonas maltophilia</i> AA1   96%   100%	<i>Stenotrophomonas</i>
21428	99	620	+	522	<i>Sphingopyxis macrogoltabida</i> EY-1   84%   99%	<i>Sphingopyxis</i>
28435	138	467	+	330	<i>Sphingopyxis macrogoltabida</i> 203N   97%   100%	<i>Sphingopyxis</i>
61133	11	241	+	231	<i>Achromobacter xylosoxidans</i> NCTC10807   99%   100%	<i>Achromobacter</i>
					Total	10
3-O-methylgallate 3,4-dioxygenase (EC 1.13.11.-)						
1545	8101	9036	-	936	<i>Bordetella</i> sp. SCN 67-23   95%   100%*	<i>Bordetella</i>
108283	45	317	+	273	<i>Novosphingobium</i> sp. Leaf2   76%   100%	<i>Novosphingobium</i>
					Total	2
2,3-dihydrphenylpropionate 1,2-dioxygenase (EC 1.13.11.-)						
106971	54	356	-	303	<i>Pseudomonas putida</i> GM4FR   87%   100%	<i>Pseudomonas</i>
					Total	1
4,5-DOPA dioxygenase (EC 1.14.99.-)						
159	42000	42377	+	378	<i>Pseudomonas aeruginosa</i> Pa127   100%   100%	<i>Pseudomonas</i>
2257	5322	5675	-	354	<i>Achromobacter denitrificans</i> PR1   99%   100%	<i>Achromobacter</i>
3101	3005	3388	+	384	<i>Achromobacter xylosoxidans</i> FDAARGOS   77%   84%	<i>Achromobacter</i>
69822	28	351	+	324	-	Unassigned
2874	5077	5349	-	273	<i>Bordetella</i> sp. SCN 67-23   96%   100%*	<i>Bordetella</i>
3	44413	44781	+	369	<i>Pseudomonas resinovorans</i> NBRC 106553   86%   93%	<i>Pseudomonas</i>
					Total	6
2-aminophenol-1,6-dioxygenase (EC 1.13.11.n1)						
340	24548	25366	+	819	<i>Achromobacter denitrificans</i> PR1   99%   100%	<i>Achromobacter</i>
7580	1107	1919	-	813	<i>Bordetella</i> sp. SCN 67-23   96%   100%*	<i>Bordetella</i>
27574	1	411	+	411	<i>Achromobacter xylosoxidans</i> A8   93%   100%	<i>Achromobacter</i>
					Total	3
Protocatechuate 4,5-dioxygenase (EC 1.13.11.8)						
244	25742	26197	-	456	<i>Sphingobium</i> sp. C1   87%   98%	<i>Sphingobium</i>
1334	63	521	-	459	<i>Delftia</i> sp. Cs1-4   99%   100%	<i>Delftia</i>
2020	1809	2174	+	366	-	Unassigned

3015	493	855	-	363	-	Unassigned
3471	697	1143	-	447	<i>Variovorax</i> sp. HW608   87%   89%	<i>Variovorax</i>
5183	18	281	+	264	<i>Delftia acidovorax</i> ANG1   99%   100%	<i>Delftia</i>
12427	746	1186	-	441	<i>Delftia tsuruhatensis</i> CM13   89%   96%	<i>Delftia</i>
79107	61	375	-	315	<i>Delftia tsuruhatensis</i> CM13   99%   100%	<i>Delftia</i>
Total						8
3,4-dihydroxyphenylacetate 2,3-dioxygenase (EC 1.13.11.15)						
170	29369	30379	+	1011	<i>Achromobacter denitrificans</i> PR1   99%   100%	<i>Achromobacter</i>
6	68470	69393	+	924	<i>Pseudomonas resinovorans</i> NBRC 106553   90%   99%	<i>Pseudomonas</i>
43	85211	86134	-	924	<i>Pseudomonas aeruginosa</i> X78812   100%   100%	<i>Pseudomonas</i>
441	7258	8109	+	852	<i>Achromobacter denitrificans</i> PR1   99%   100%	<i>Achromobacter</i>
1518	6227	7105	-	879	<i>Acidovorax avenae</i> ATCC 19860   82%   97%	<i>Acidovorax</i>
66678	158	436	-	279	<i>Comamonas</i> sp. SCN 65-56   83%   100%*	<i>Comamonas</i>
70311	21	239	+	219	<i>Achromobacter xylosoxidans</i> FDAARGOS   99%   100%	<i>Achromobacter</i>
Total						7
Intradiol aromatic-ring-cleavage dioxygenases						
Catechol 1,2-dioxygenase (EC 1.13.11.1)						
10	254071	255003	+	933	<i>Pseudomonas aeruginosa</i> NHmuc   100%   100%	<i>Pseudomonas</i>
89	65651	66580	-	930	<i>Pseudomonas pseudoalcaligenes</i> KF707   87%   94%	<i>Pseudomonas</i>
313	28152	29072	+	921	<i>Sphingobium</i> sp. TKS   87%   99%	<i>Sphingobium</i>
503	1138	2058	-	921	<i>Novosphingobium resinovorum</i> SA1   88%   95%	<i>Novosphingobium</i>
2619	1214	2083	+	870	<i>Bordetella</i> sp. SCN 67-23   98%   100%*	<i>Bordetella</i>
2693	3014	3889	+	876	<i>Burkholderia cenocepacia</i> VC1254   77%   97%	<i>Burkholderia</i>
3582	3094	4014	+	921	<i>Cupriavidus nantongensis</i> X1   95%   100%	<i>Cupriavidus</i>
5050	743	1693	+	951	<i>Bordetella</i> sp. SCN 67-23   95%   99%*	<i>Bordetella</i>
54674	264	398	-	135	<i>Mesorhizobium loti</i>   76%   95%*	<i>Mesorhizobium</i>
70999	86	415	-	330	<i>Bosea thiooxidans</i> CGMCC 9174   100%   100%*	<i>Bosea</i>
95825	179	304	-	126	<i>Mesorhizobium ciceri</i> WSM1271   78%   100%*	<i>Mesorhizobium</i>
111855	145	300	-	156	<i>Achromobacter insolitus</i> DSM 23807   96%   100%	<i>Achromobacter</i>
447	23817	24689	+	873	<i>Achromobacter denitrificans</i> PR1   99%   100%	<i>Achromobacter</i>
32983	56	634	+	579	<i>Variovorax paradoxus</i> EPS   92%   96%	<i>Variovorax</i>
37018	38	481	+	444	<i>Achromobacter xylosoxidans</i> A8   92%   99%	<i>Achromobacter</i>
40315	6	512	+	507	-	Unassigned
Total						16
Protocatechuate 3,4-dioxygenase (EC 1.13.11.3)						
87	49809	50414	-	606	<i>Pseudomonas aeruginosa</i> M28A1   100%   100%	<i>Pseudomonas</i>
470	9873	10478	-	606	<i>Pseudomonas pseudoalcaligenes</i> KF707   88%   100%	<i>Pseudomonas</i>
1861	2746	3315	+	570	<i>Cupriavidus nantongensis</i> X1   93%   100%	<i>Cupriavidus</i>
4543	1592	2176	-	585	<i>Ralstonia solanacearum</i> CFBP2957   81%   85%	<i>Ralstonia</i>
8475	363	926	-	564	<i>Stenotrophomonas maltophilia</i> AA1   93%   100%	<i>Stenotrophomonas</i>
818	4952	5842	-	891	<i>Novosphingobium</i> sp. P6W   85%   100%*	<i>Novosphingobium</i>
6186	581	1507	+	927	<i>Delftia</i> sp. HK171   98%   100%	<i>Delftia</i>
Total						7
Oher aromatic-ring-cleavage dioxygenases						
Gentisate 1,2-dioxygenase (EC 1.13.11.4)						
10	290582	291643	-	1062	<i>Pseudomonas aeruginosa</i> DK2   100%   100%	<i>Pseudomonas</i>
240	37602	38678	+	1077	<i>Achromobacter denitrificans</i> PR1   99%   100%	<i>Achromobacter</i>
269	337	1461	-	1125	<i>Achromobacter denitrificans</i> PR1   99%   100%	<i>Achromobacter</i>
539	10893	11945	+	1053	<i>Achromobacter denitrificans</i> PR1   99%   100%	<i>Achromobacter</i>
639	2558	3604	+	1047	-	Unassigned
810	1202	2392	-	1191	<i>Acidovorax avenae</i> ATCC 19860   83%   89%	<i>Acidovorax</i>
999	3394	4518	+	1125	<i>Variovorax</i> sp. HW608   81%   96%	<i>Variovorax</i>
1250	27	221	+	195	<i>Bordetella</i> sp. SCN 67-23   98%   100%*	<i>Bordetella</i>
1687	997	2028	-	1032	<i>Bordetella</i> sp. SCN 67-23   97%   100%*	<i>Bordetella</i>
1852	31	153	+	123	<i>Cupriavidus nantongensis</i> X1   98%   100%	<i>Cupriavidus</i>
4783	2758	3216	-	459	<i>Acidovorax</i> sp. KKS102   97%   95%	<i>Acidovorax</i>
5573	1865	2377	-	513	<i>Acidovorax wautersii</i> DSM 27981   75%   98%*	<i>Acidovorax</i>
5758	100	1026	+	927	<i>Achromobacter ruhlandii</i> SCCH3:ACH   85%   100%	<i>Achromobacter</i>
14794	11	238	+	228	<i>Cupriavidus</i> sp. UYPR2.512   81%   100%*	<i>Cupriavidus</i>
					<i>Achromobacter xylosoxidans</i> NH44784-1996   96%   100%	<i>Achromobacter</i>
16309	16	726	+	711		
17111	75	1043	-	969	<i>Delftia tsuruhatensis</i> CM13   98%   100%	<i>Delftia</i>
32039	331	645	-	315	<i>Cupriavidus</i> sp. USMAA1020   84%   97%	<i>Cupriavidus</i>
32821	37	639	+	603	<i>Ensifer sojae</i> CCBAU 05684   80%   95%	<i>Ensifer</i>
98422	31	318	-	288	<i>Sphingopyxis macrogoltabida</i> 203N   93%   100%	<i>Sphingopyxis</i>
Total						19
Homogentisate 1,2-dioxygenase (EC 1.13.11.5)						
7	13333	14520	+	1188	<i>Chryseobacterium</i> sp. StRB126   84%   96%	<i>Chryseobacterium</i>
49	25979	27277	-	1299	<i>Pseudomonas aeruginosa</i> NHmuc   100%   100%	<i>Pseudomonas</i>
54	115589	116878	-	1290	<i>Sphingobium</i> sp. C1   82%   97%	<i>Sphingobium</i>
81	107824	109131	-	1308	<i>Dokdonella koreensis</i> DS-123   88%   98%	<i>Dokdonella</i>
145	20513	21841	+	1329	<i>Sphingomonas hengshuiensis</i> WHSC-8   82%   95%	<i>Sphingomonas</i>
254	33500	34792	+	1293	<i>Pseudomonas citronellolis</i> P3B5   89%   98%	<i>Pseudomonas</i>
614	21	1352	+	1332	<i>Burkholderia gladioli</i> BSR3   83%   96%	<i>Burkholderia</i>
908	2956	4290	+	1335	-	Unassigned
938	11318	12652	-	1335	<i>Variovorax</i> sp. HW608   85%   96%	<i>Variovorax</i>
1516	6842	8140	-	1299	<i>Achromobacter denitrificans</i> PR1   99%   100%	<i>Achromobacter</i>
1823	7634	8041	-	408	<i>Bordetella hinzii</i> NCTC13200   83%   87%	<i>Bordetella</i>

3847	97	1416	+	1320	Cupriavidus taiwanensis LMG19424   96%   99%	Cupriavidus
7226	1140	2117	-	978	Pseudomonas oryzae KCTC 32247   78%   86%	Pseudomonas
9750	972	1433	-	462	Legionella hackeliae 798-PA-H   81%   96%*	Legionella
12169	50	169	+	120	Stenotrophomonas maltophilia NCTC10257   96%   100%	Stenotrophomonas
					Stenotrophomonas acidaminiphila ZAC14D2   93%   100%	Stenotrophomonas
15096	23	370	+	348		
25559	94	396	+	303	Chryseobacterium sp. 36-9   100%   100%*	Chryseobacterium
28434	23	667	+	645	Rhodospirillum centenum SW   83%   97%	Rhodospirillum
58142	32	487	-	456	Variovorax boronicummulans J1   95%   100%	Variovorax
					Total	19
Ring-hydroxylating dioxygenases						
Anthranilate / Ortho-halobenzoate 1,2-dioxygenase (EC 1.14.12.1)						
10	248828	250222	-	1395	Pseudomonas aeruginosa W45909   99%   100%	Pseudomonas
331	4188	5498	-	1311	Bordetella bronchiseptica I328   83%   97%	Bordetella
614	9931	11118	-	1188	Pseudomonas aeruginosa PP4   99%   91%	Pseudomonas
999	87	257	+	171	Hydrogenophaga sp. T4   86%   78%*	Hydrogenophaga
1974	6226	7485	-	1260	Cupriavidus sp. USMAA2-4   75%   95%	Cupriavidus
2429	1892	3145	-	1254	Hydrogenophaga sp. PBC   78%   91%	Hydrogenophaga
3141	1827	3134	+	1308	Pigmentiphaga sp. NDS-2   97%   100%	Pigmentiphaga
4439	1931	3226	+	1296	Cupriavidus basilensis 4G11   85%   90%	Cupriavidus
6331	818	2056	-	1239	-	Unassigned
18612	792	962	-	171	Variovorax paradoxus B4   85%   100%	Variovorax
33891	65	604	+	540	-	Unassigned
					Total	11
Benzoate 1,2-dioxygenase (EC 1.14.12.10)						
35	196596	197720	+	1125	Pseudomonas resinovorans NBRC 106553   82%   97%	Pseudomonas
130	64866	65900	+	1035	-	Unassigned
1342	20	346	+	327	Cupriavidus sp. NH9   98%   100%	Cupriavidus
9867	132	1358	-	1227	Sinorhizobium sp. RAC02   87%   98%	Sinorhizobium
6	11347	12738	+	1392	Pseudomonas resinovorans NBRC 106553   89%   98%	Pseudomonas
645	10636	11979	-	1344	Bordetella sp. SCN 67-23   96%   99%*	Bordetella
929	3123	4445	-	1323	Bordetella sp. SCN 67-23   98%   99%*	Bordetella
2832	2663	3859	+	1197	Bordetella sp. SCN 67-23   96%   99%*	Bordetella
3622	6	1094	+	1089	Bordetella sp. SCN 67-23   98%   100%*	Bordetella
9022	373	1587	-	1215	Bordetella sp. SCN 67-23   96%   99%*	Bordetella
1052	4824	5099	-	276	Parvibaculum lavamentivorans DS-1   85% 64%*	Parvibaculum
1124	5319	6737	+	1419	Sphingobium sp. PNB   100%   100%	Sphingobium
1382	5661	6908	-	1248	Bordetella sp. SCN 67-23   97%   100%*	Bordetella
1824	2551	3888	-	1338	Sphingomonas sp. DN1   99%   100%	Sphingomonas
4332	44	949	+	906	-	Unassigned
					Total	15
Naphthalene 1,2-dioxygenase (EC 1.14.12.12)						
73	110789	112057	+	1269	Sphingomonas wittichii RW1   79%   94%	Sphingomonas
466	20834	22153	+	1320	Sphingomonas flavimaris SMR4y   88%   100%	Sphingomonas
493	7477	8664	+	1188	Sphingomonas sp. LH128   100%   100%	Sphingomonas
890	235	1581	-	1347	Sphingomonas sp. P2   100%   100%	Spingomonas
1164	2	520	+	519	Bordetella sp. SCN 67-23   98%   100%*	Bordetella
1565	4776	6128	+	1353	Sphingomonas sp. Km187   100%   100%	Sphingomonas
1565	6674	8041	+	1368	Sphingobium sp. PNB   100%   100%	Sphingobium
3181	2872	4236	+	1365	Sphingobium yanoikuyae B1   100%   100%	Sphingobium
9595	75	953	+	879	Bordetella sp. SCN 67-23   96%   100%*	Bordetella
					Total	9
2-halobenzoate 1,2-dioxygenase (EC 1.14.12.13)						
313	29097	30452	+	1356	Sphingobium sp. TKS   90%   100%	Sphingobium
497	12138	13484	+	1347	Achromobacter denitrificans PR1   99%   100%	Achromobacter
810	8207	9538	-	1332	Achromobacter sp. MFA1 R4   77%   91%	Achromobacter
2567	5693	5971	-	279	Novosphingobium resinovorum SA1   88%   86%	Novosphingobium
12681	8	907	+	900	Bordetella sp. SCN 67-23   97%   98%*	Bordetella
48945	329	538	-	210	Variovorax boronicummulans J1   93%   95%	Variovorax
					Total	6
Biphenyl 2,3-dioxygenase (EC 1.14.12.18)						
					Novosphingobium aromaticivorans DSM 12444   99%   100%	Novosphingobium
493	16568	16978	+	411		
2111	3684	4115	-	432	Novosphingobium sp. PP1Y   98%   96%	Novosphingobium
9656	847	1257	+	411	Comamonas testosteroni P19   89%   100%	Comamonas
89	74526	75800	-	1275	Pseudomonas pseudoalcaliigenes KF707   95%   100%	Pseudomonas
1124	8215	9495	+	1281	Sphingobium sp. PNB   100%   100%	Sphingobium
1824	6034	7302	+	1269	Sphingomonas sp. DN1   100%   100%	Sphingomonas
					Total	6
3-phenylpropanoate dioxygenase (EC 1.14.12.19)						
281	18169	19488	-	1320	Achromobacter denitrificans PR1   99%   100%	Achromobacter
598	12742	14088	-	1347	Achromobacter denitrificans PR1   99%   100%	Achromobacter
666	15671	16831	-	1161	Achromobacter xylosoxidans MN001   99%   100%	Achromobacter
					Total	3
p-cumate 2,3-dioxygenase (EC 1.14.12.25)						
30	172310	173620	-	1311	Paraburkholderia xenovorans LB400   79%   90%	Paraburkholderia
49	115435	116709	+	1275	Pseudomonas aeruginosa W60856   100%   100%	Pseudomonas
131	7034	8308	+	1275	-	Unassigned
					Total	3

Other/Putative/Unclassified ring-hydroxylating dioxygenases						
45	85972	87132	-	1161	<i>Pseudomonas resinovorans</i> NBRC 106553   84%   96%	<i>Pseudomonas</i>
125	39321	40610	+	1290	<i>Sphingobium</i> sp. RAC03   75%   99%	<i>Sphingobium</i>
216	48582	49055	-	474	<i>Acidovorax avenae</i> ATCC 19860   83%   95%	<i>Acidovorax</i>
220	44610	45680	-	1071	<i>Sphingobium herbicidovorans</i> HM   80%   99%	<i>Sphingobium</i>
267	32963	34300	-	1338	<i>Novosphingobium resinovorum</i> SA1   88%   99%	<i>Novosphingobium</i>
422	10966	12327	-	1362	<i>Achromobacter denitrificans</i> PR1   99%   100%	<i>Achromobacter</i>
425	1443	2912	+	1470	<i>Novosphingobium</i> sp. AP12   94%   98%*	<i>Novosphingobium</i>
490	15279	16445	-	1167	<i>Novosphingobium</i> sp. AP12   93%   100%*	<i>Novosphingobium</i>
500	10911	12266	-	1356	<i>Sphingomonas</i> sp. S5-249   76%   98%*	<i>Sphingomonas</i>
602	11513	12823	-	1311	<i>Variovorax</i> sp. Root473   81%   100%*	<i>Variovorax</i>
642	13369	14799	+	1431	<i>Novosphingobium resinovorum</i> SA1   88%   98%	<i>Novosphingobium</i>
1039	3758	4933	+	1176	<i>Rhodoferax</i> sp. DCY110   85%   95%	<i>Rhodoferax</i>
1246	5545	6534	-	990	-	Unassigned
1613	6046	7422	+	1377	<i>Novosphingobium resinovorum</i> SA1   84%   99%	<i>Novosphingobium</i>
1656	1746	2972	-	1227	-	Unassigned
2067	1896	2999	-	1104	<i>Cupriavidus nantongensis</i> X1   97%   100%	<i>Cupriavidus</i>
2472	445	1782	-	1338	<i>Sphingobium</i> sp. RAC03   84%   98%	<i>Sphingobium</i>
2593	1674	2825	+	1152	<i>Parvibaculum lamentivorans</i> DS-1   99%   99%*	<i>Parvibaculum</i>
3751	2511	3572	+	1062	<i>Bordetella</i> sp. SCN 67-23   95%   100%*	<i>Bordetella</i>
4409	2037	3437	-	1401	-	Unassigned
4723	2040	3107	-	1068	<i>Sphingobium</i> sp. MI1205   80%   96%	<i>Sphingobium</i>
7358	23	346	+	324	<i>Acidovorax</i> sp. KKS102   93%   90%	<i>Acidovorax</i>
8191	1465	1890	-	426	<i>Novosphingobium</i> sp. AP12   95%   88%*	<i>Novosphingobium</i>
10438	706	1410	-	705	-	Unassigned
11469	829	1281	-	453	<i>Achromobacter xylosoxidans</i> NH44784-1996   85%   93%	<i>Achromobacter</i>
11804	810	1271	-	462	<i>Bordetella</i> sp. SCN 67-23   96%   100%*	<i>Bordetella</i>
45485	20	205	+	186	<i>Labrys</i> sp. WJW   97%   100%*	<i>Labrys</i>
30504	76	624	+	549	-	Unassigned
8205	1599	1844	-	246	-	Unassigned
1124	2042	3304	-	1263	<i>Sphingobium</i> sp. PNB   99%   100%	<i>Sphingobium</i>
Total						30

\*Blastp was used instead blastn for genus assignation, as blastn did not show any significant hits.