

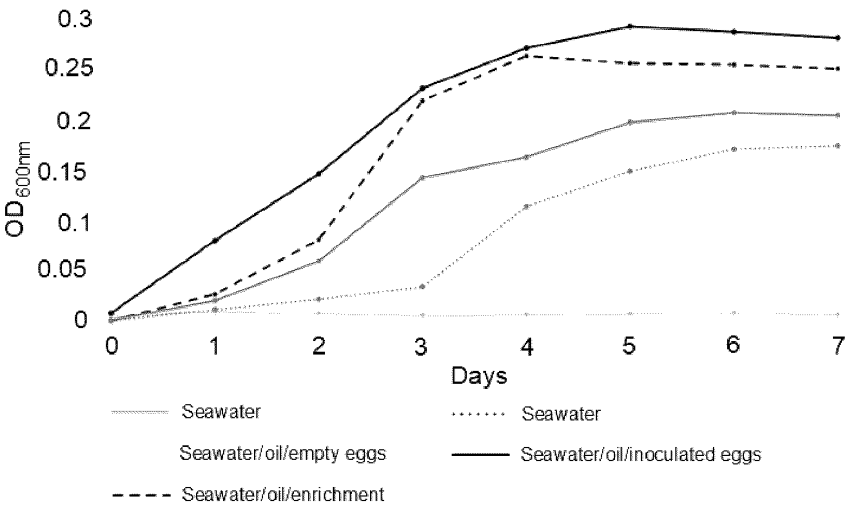


FIG. 1

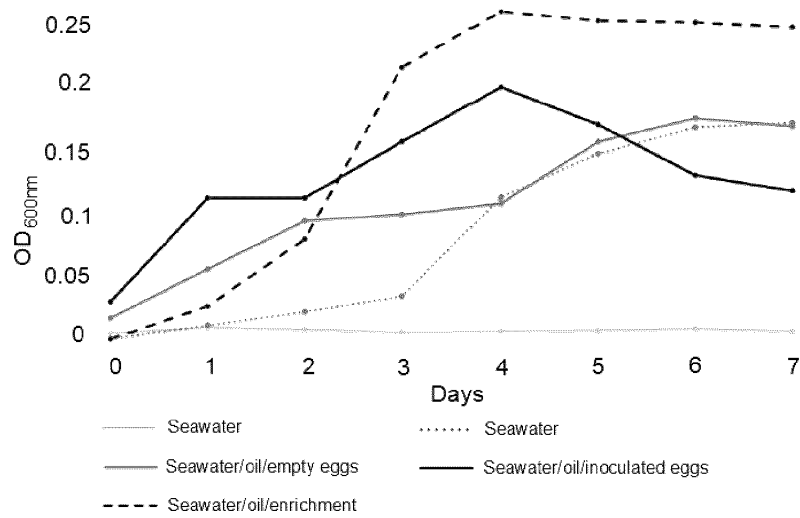


FIG. 2

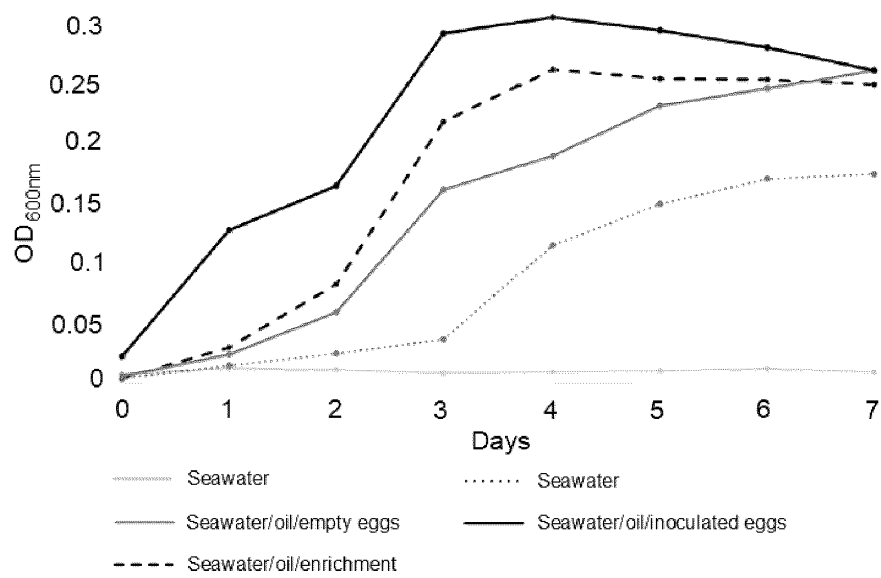


FIG. 3

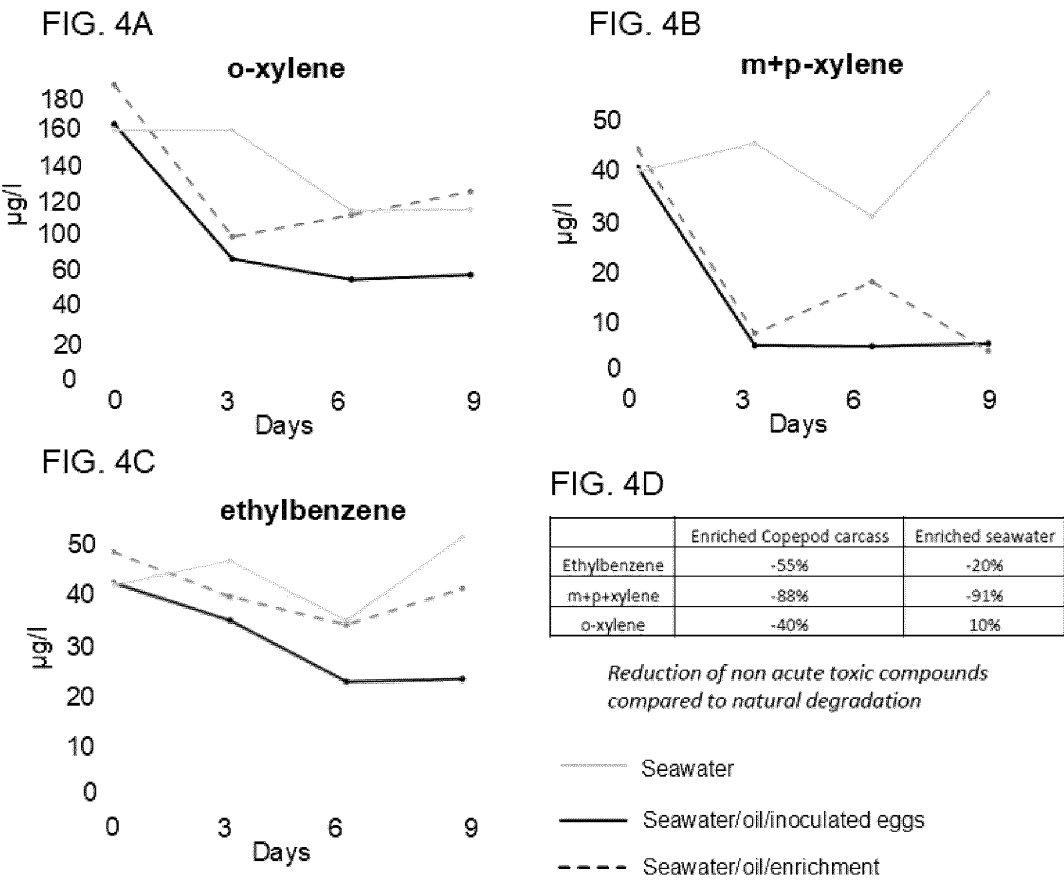


FIG. 4

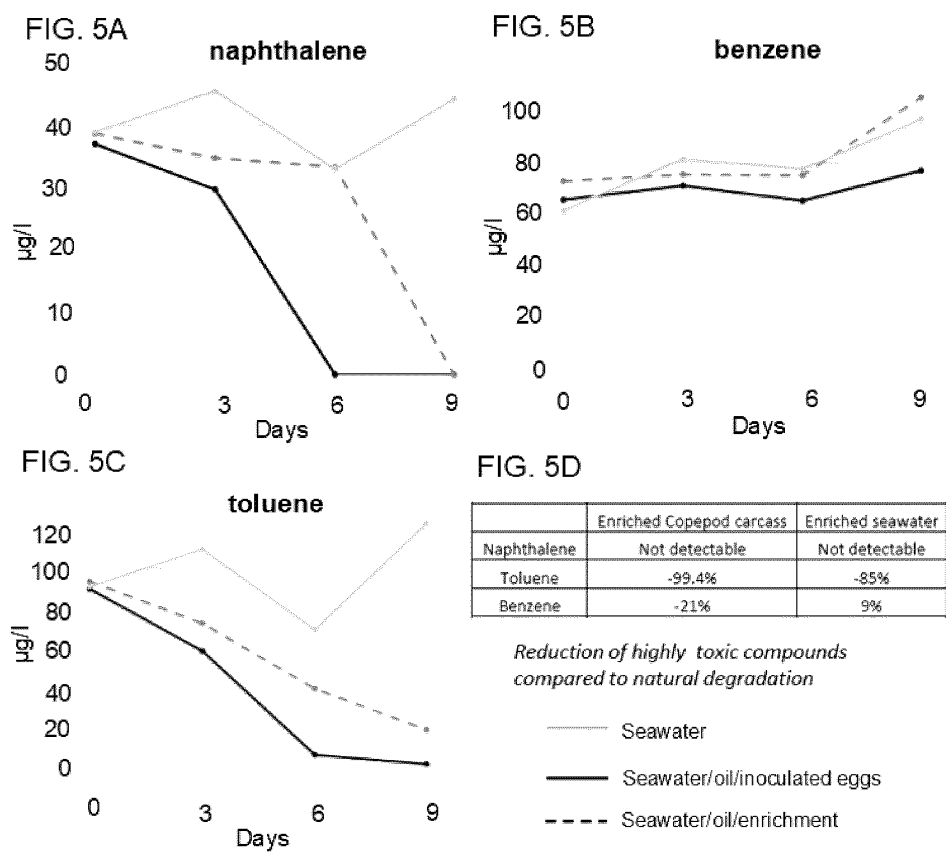


FIG. 5

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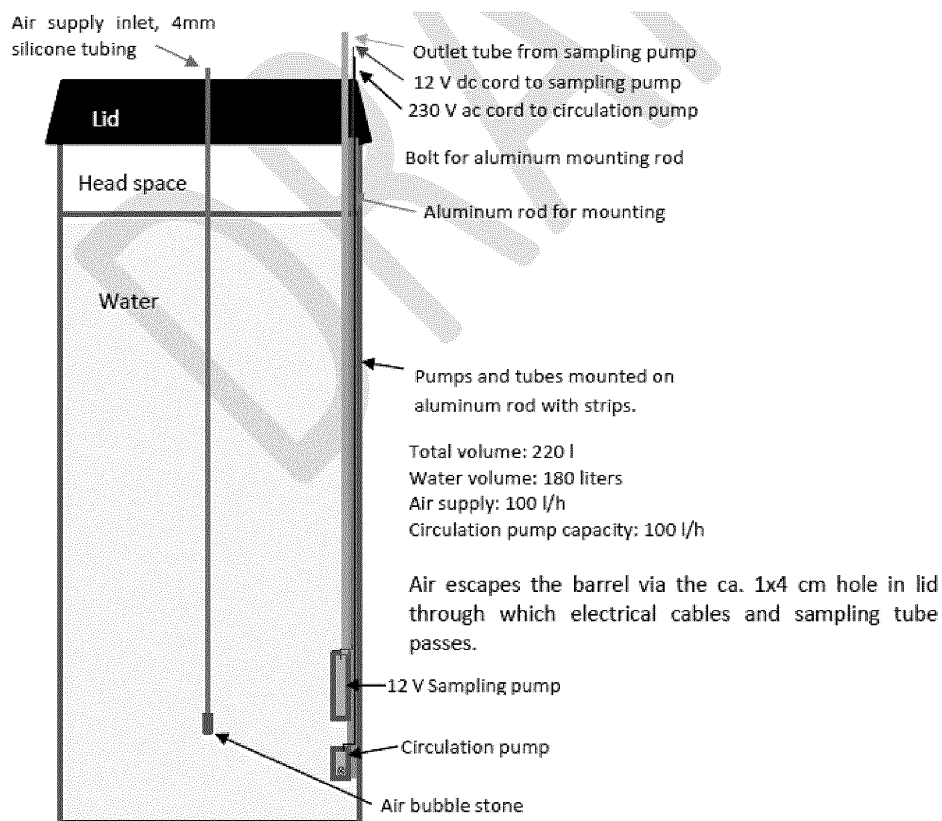


FIG. 6

FIG. 7A pH

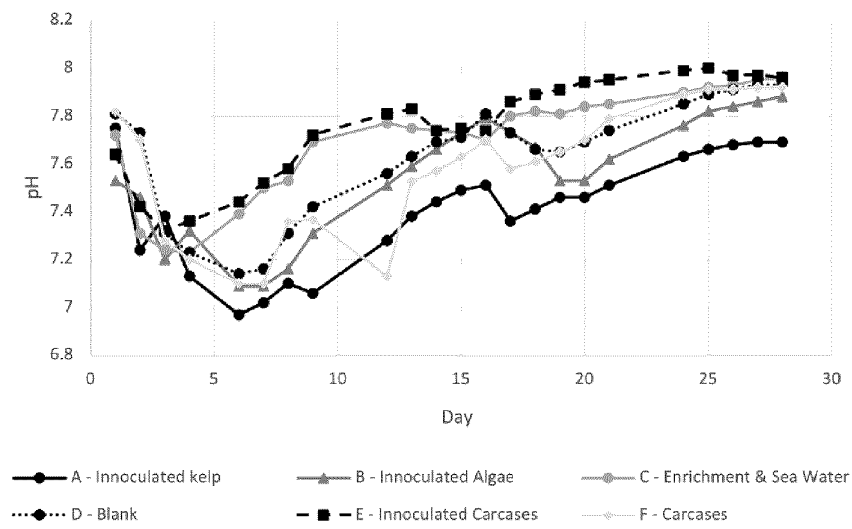


FIG. 7B ORP

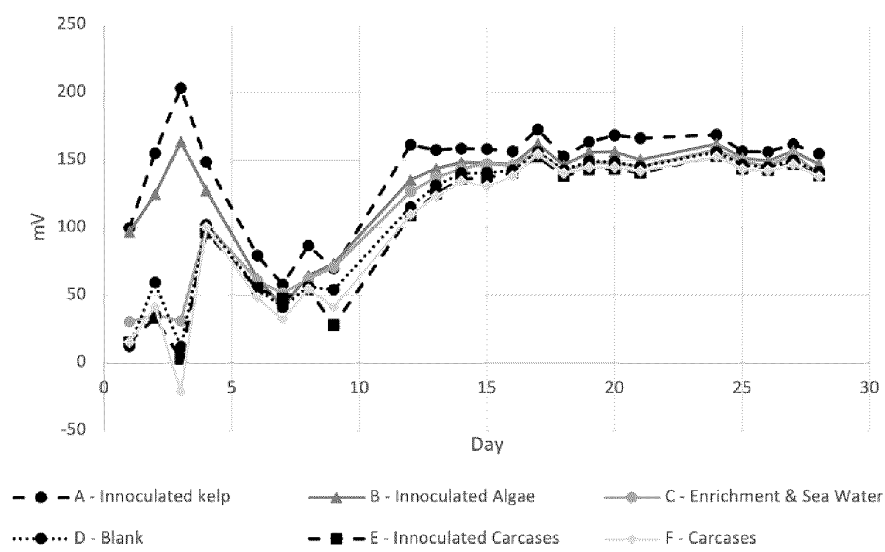


FIG. 7

FIG. 8A Turbidity

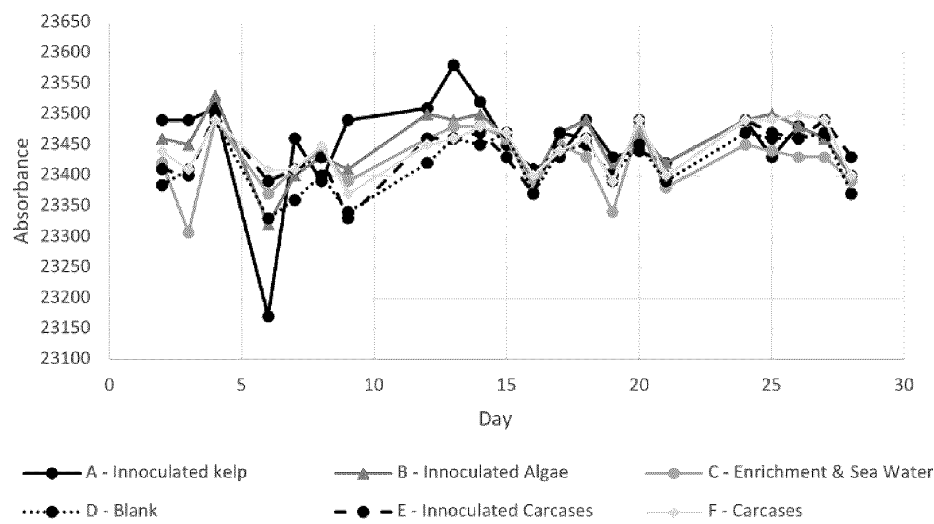


FIG. 8B Optical Density

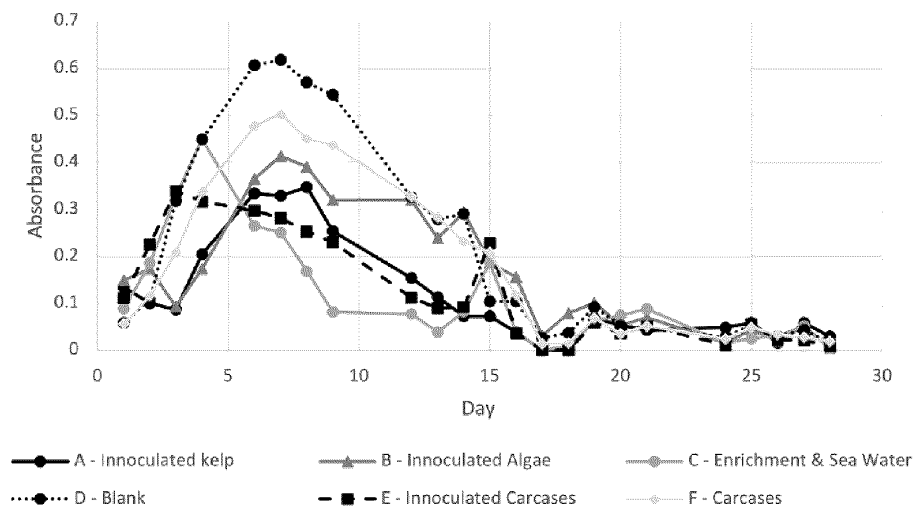


FIG. 8

FIG. 9A: Inoculated kelp

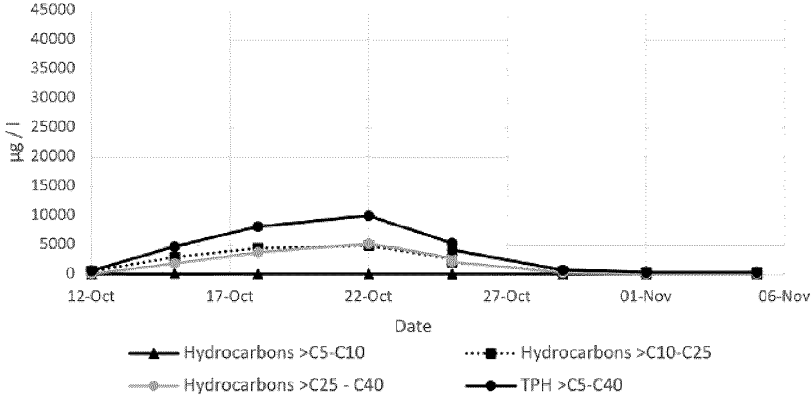


FIG. 9B: Inoculated algae

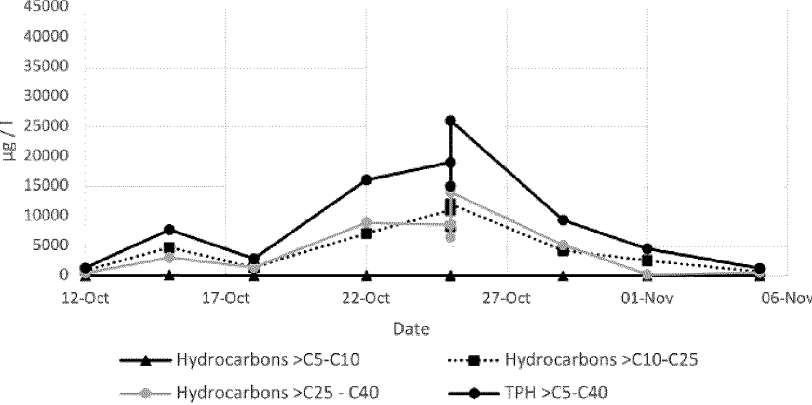


FIG. 9C: Enrichment & seawater

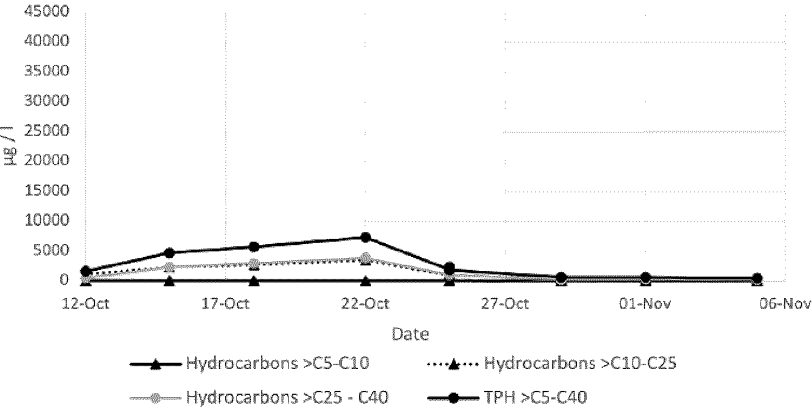


FIG. 9D: Control

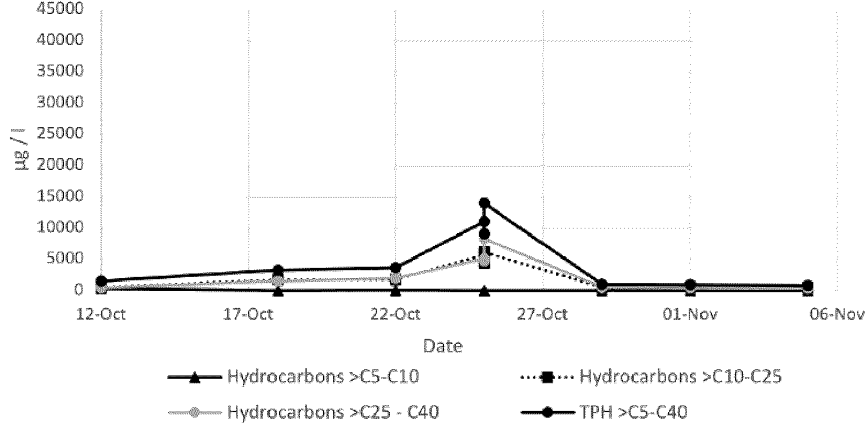


FIG. 9E: Inoculated copepod carcasses

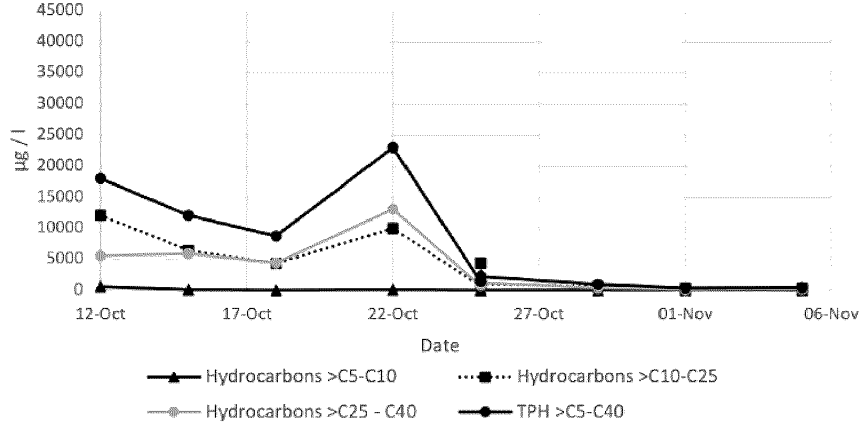
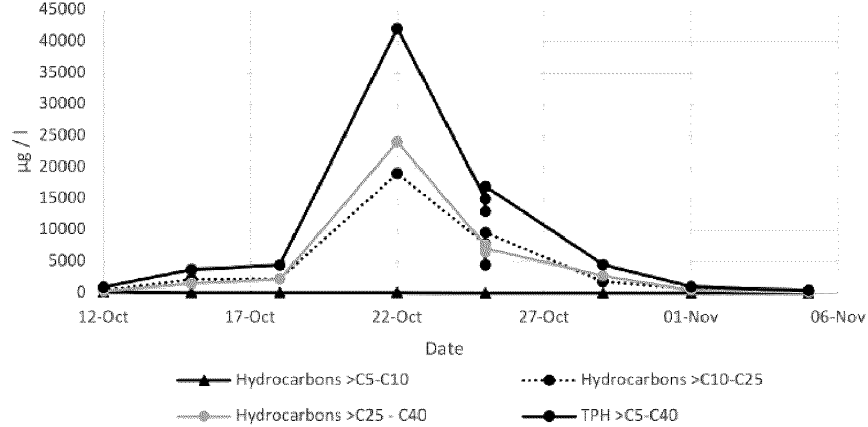


FIG. 9F: Copepod carcasses



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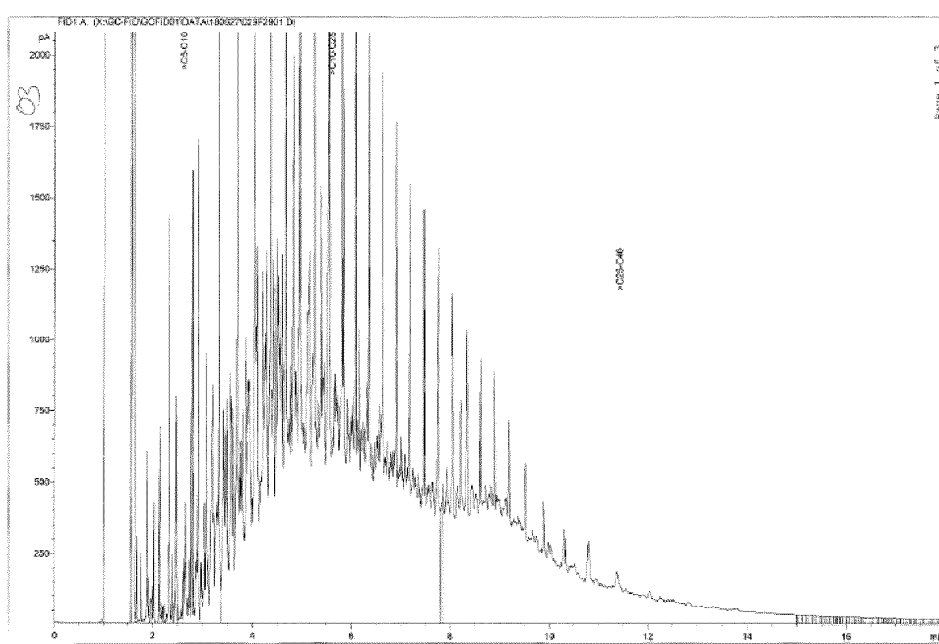


FIG. 10

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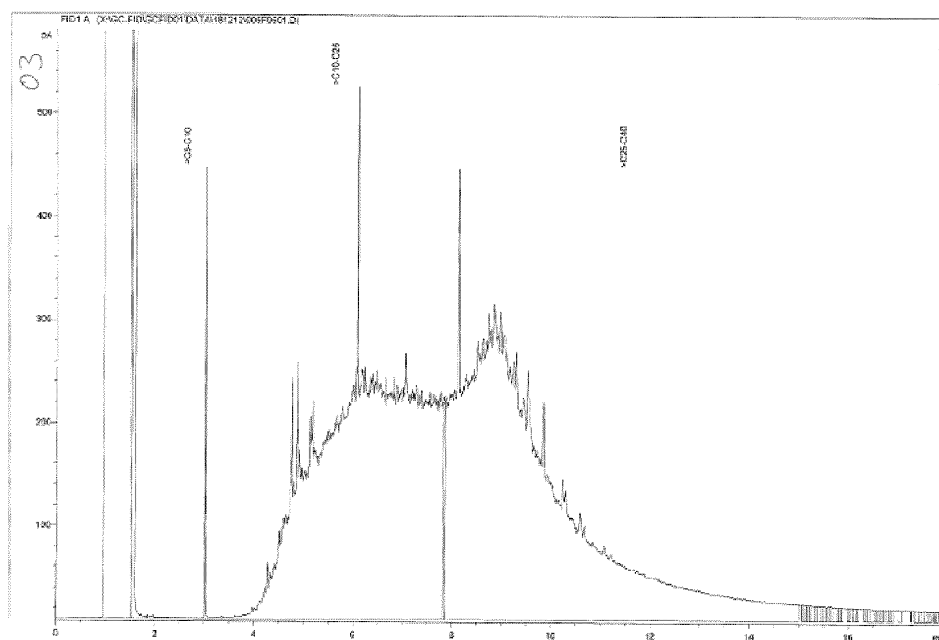


FIG. 11

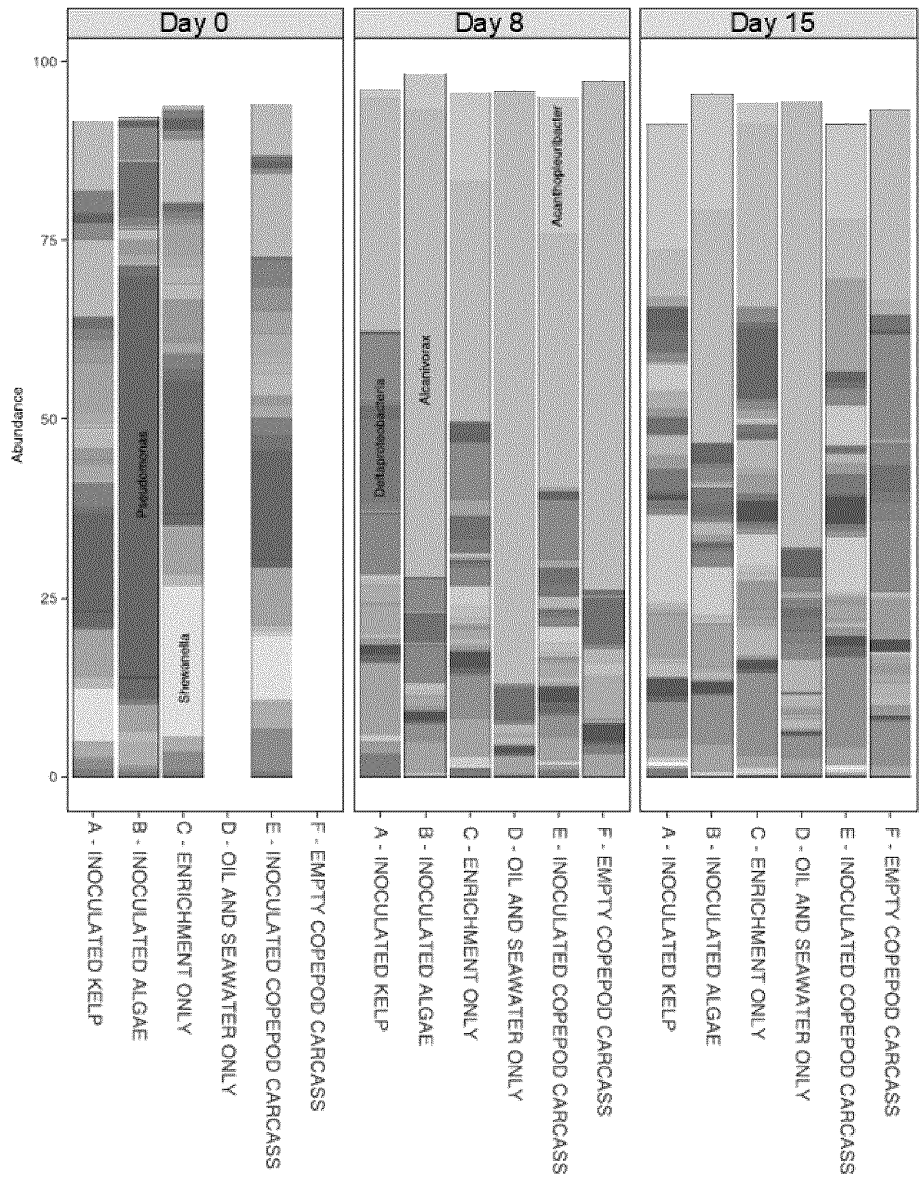


FIG. 12A

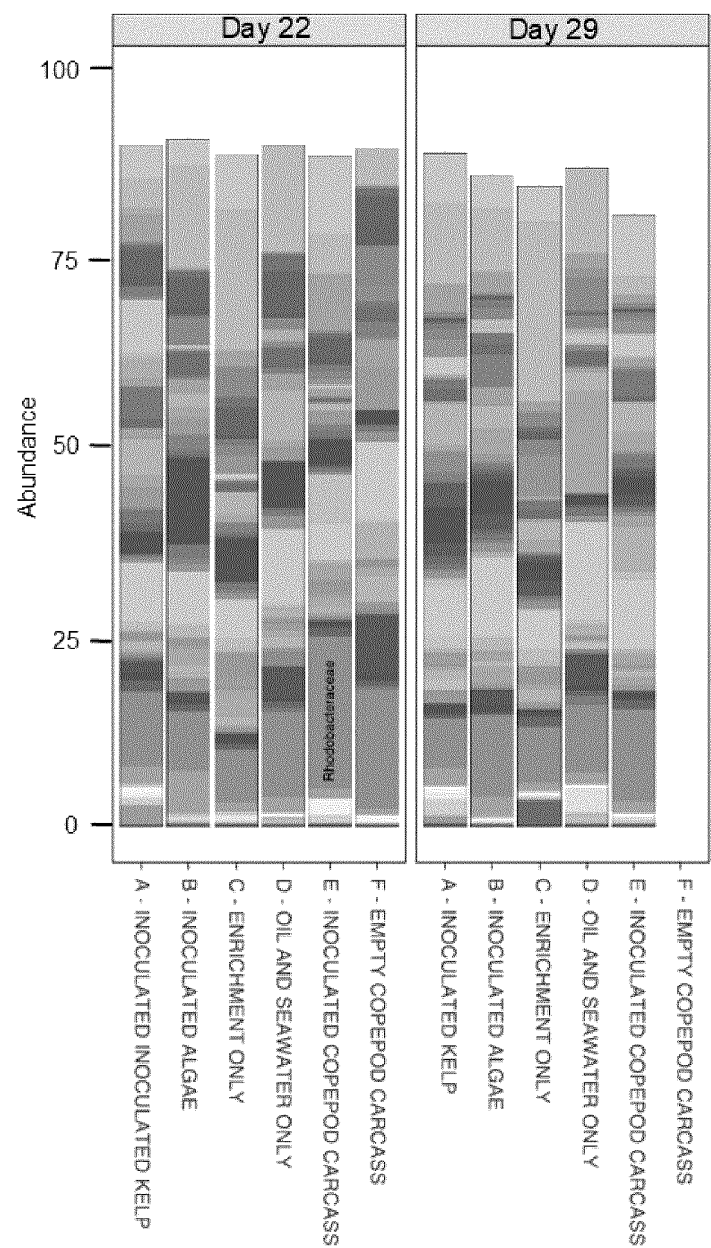


FIG. 12B

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Acanthopleuribacter_ASV370	Coxiella_ASV870
Alcanivorax_ASV1242	Criblamydiaceae_ASV706
Alphaproteobacteria_ASV1415	Cryomorphaceae bacterium IMCC2672_ASV38
Alphaproteobacteria_ASV1537	Cryomorphaceae_ASV209
Alphaproteobacteria_ASV1642	Cryomorphaceae_ASV37
Alphaproteobacteria_ASV1647	Cryomorphaceae_ASV41
Alteromonadaceae_ASV824	Cycloclasticus_ASV890
Alteromonadaceae_ASV830	Deltaproteobacteria_ASV773
Alteromonadales_ASV1223	Flavobacteriaceae_ASV118
Arenibacter_ASV174	Flavobacteriaceae_ASV125
Bacteria_ASV688	Flavobacteriaceae_ASV165
BD7-11_ASV381	Flavobacteriaceae_ASV190
C1-B045_ASV894	Flavobacteriaceae_ASV195
Caldilineaceae_ASV695	Flavobacteriaceae_ASV81
Cellvibrionaceae_ASV886	Flavobacteriaceae_ASV92
Cerasicoccus_ASV287	Flavobacterium_ASV139
Cerasicoccus_ASV288	Francisella_ASV878
Chitinophagaceae_ASV248	Francisellaceae_ASV875
Chlamydiales_ASV701	Gammaproteobacteria_ASV1024
Cobetia_ASV1102	Gammaproteobacteria_ASV1031
Gammaproteobacteria_ASV1046	Marinobacter_ASV943
Gammaproteobacteria_ASV1050	Marinobacterium_ASV1260
Gammaproteobacteria_ASV1108	Methylophagaceae_ASV1304
Gammaproteobacteria_ASV1119	Micavibrionales_ASV1355
Gammaproteobacteria_ASV1274	Muricauda_ASV187
Gammaproteobacteria_ASV1277	Neptuniibacter_ASV1257
Gammaproteobacteria_ASV1279	NS9 marine group_ASV53
Gammaproteobacteria_ASV849	Oleispira_ASV956
Gammaproteobacteria_ASV865	Parvibaculum_ASV1547
Gammaproteobacteria_ASV951	Phycisphaeraceae_ASV417
Gammaproteobacteria_ASV959	Planctomycetales_ASV507
Gammaproteobacteria_ASV983	planctomycete DDSW1318_ASV492
Gimesia_ASV503	Pseudohongiella_ASV1115
Halleaeceae_ASV1178	Pseudohongiella_ASV1202
Halobacteriovorax_ASV782	Pseudomonas_ASV917
Hyphomonadaceae_ASV1502	Pseudomonas_ASV919
Idiomarina_ASV1066	Pseudomonas_ASV921
JGI 0000069-P22_ASV325	Punicispirillales_ASV1438
Kordiimonas_ASV1541	Rhodobacteraceae_ASV1587
Legionella sp. LHG-1BW4_ASV1001	Rhodobacteraceae_ASV1602
Rhodobacteraceae_ASV1747	
Rhodobacteraceae_ASV1754	
Rhodobacteraceae_ASV1760	
Rhodobacteraceae_ASV1767	
Saccharospirillaceae_ASV1091	
Shewanella_ASV1219	
Sneathiella_ASV1521	
SS1-B-02-17_ASV338	
SS1-B-02-17_ASV340	
Sulfurimonas_ASV802	
Terasakiellaceae_ASV1406	
Thalassospira_ASV1713	
Vibrio_ASV1211	
Vitellibacter_ASV159	
Winogradskyella_ASV103	
Zhongshania_ASV1294	

FIG. 12C

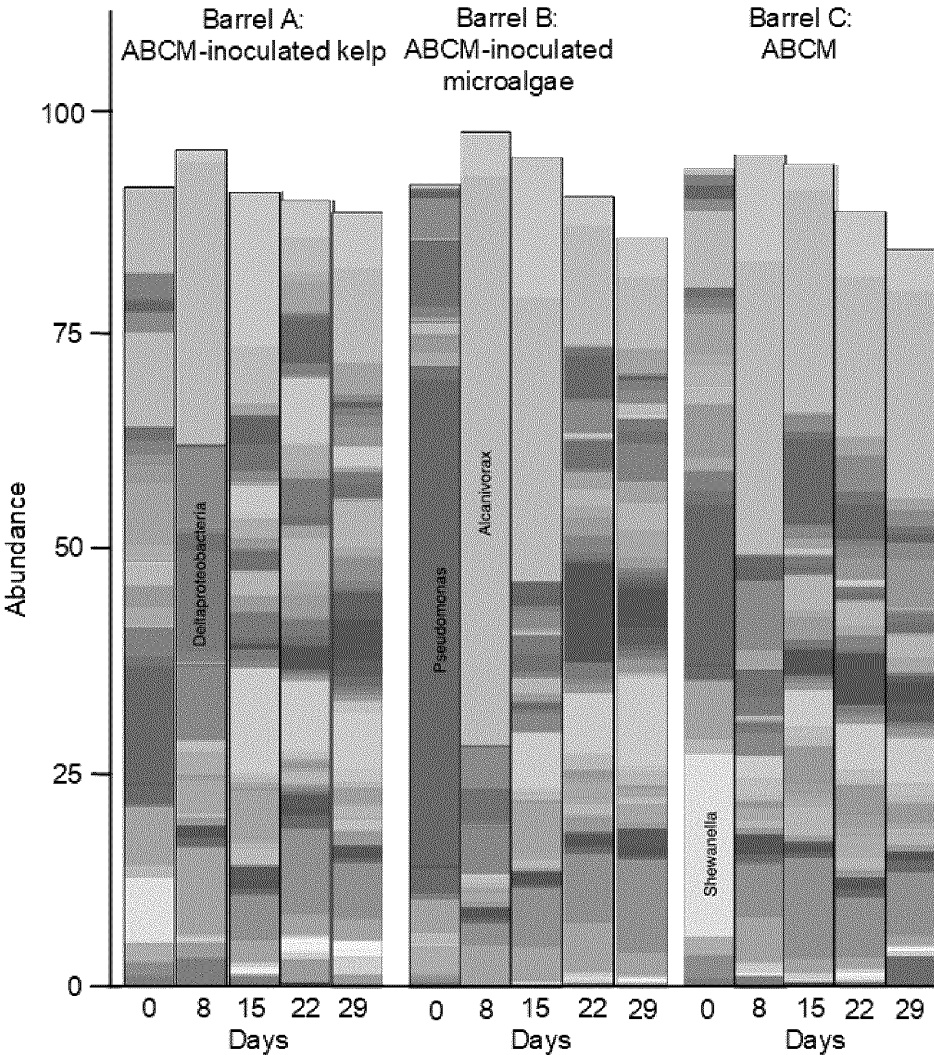


FIG. 13A

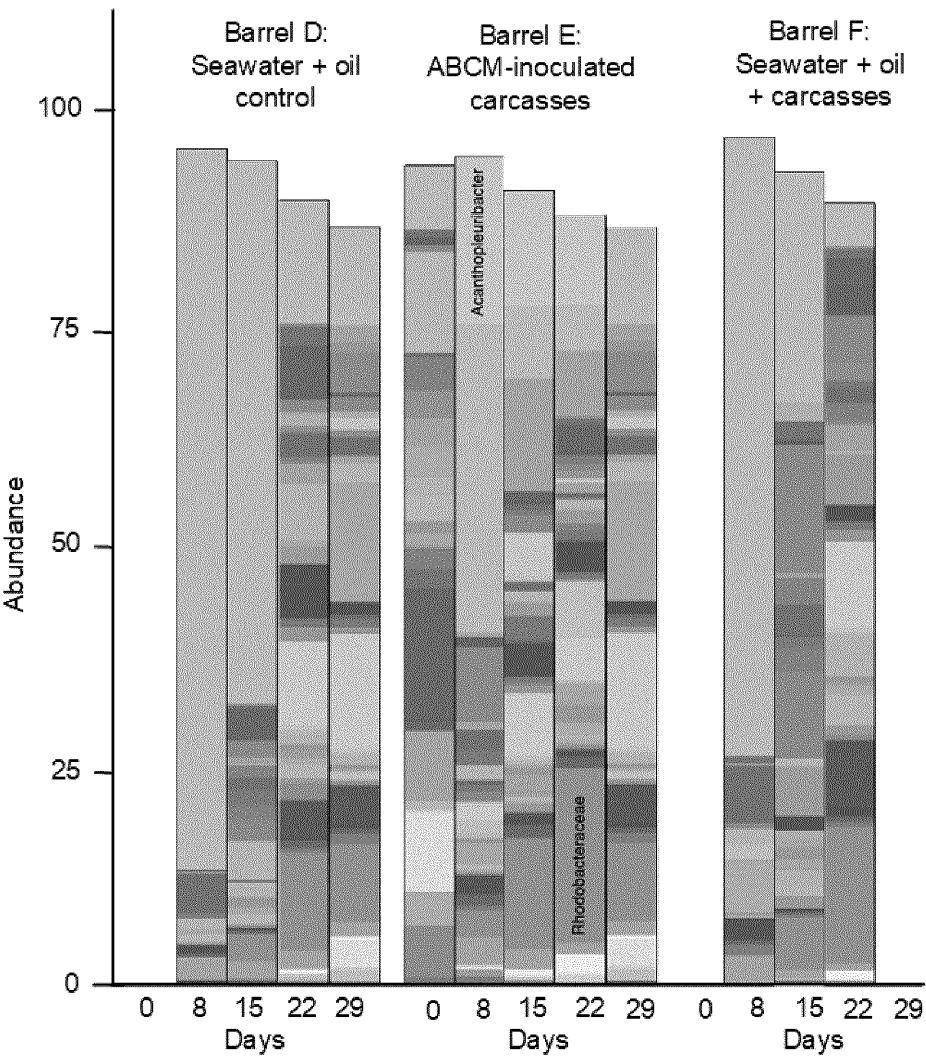


FIG. 13B

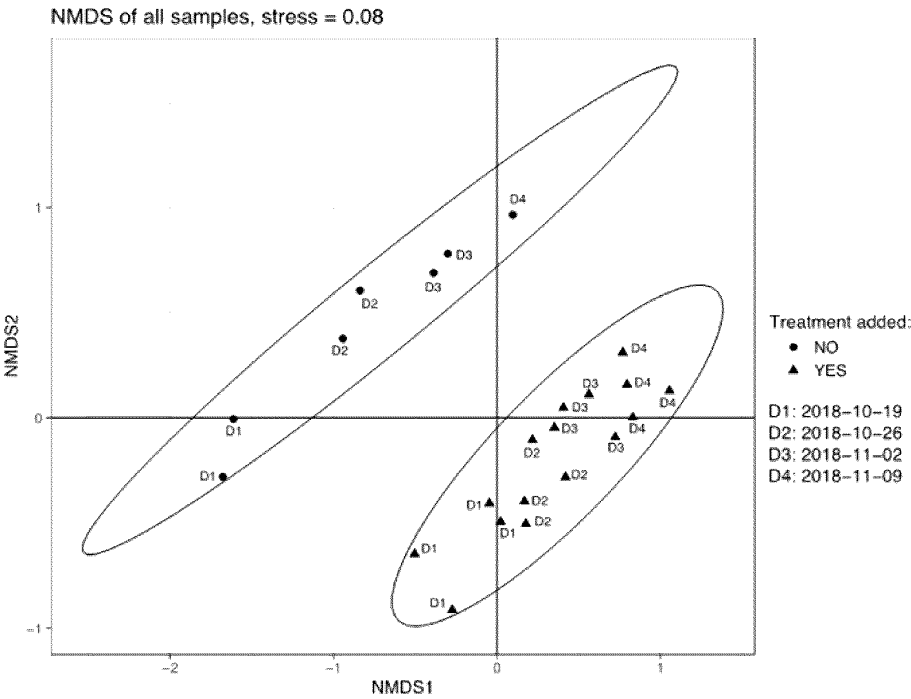


FIG. 14

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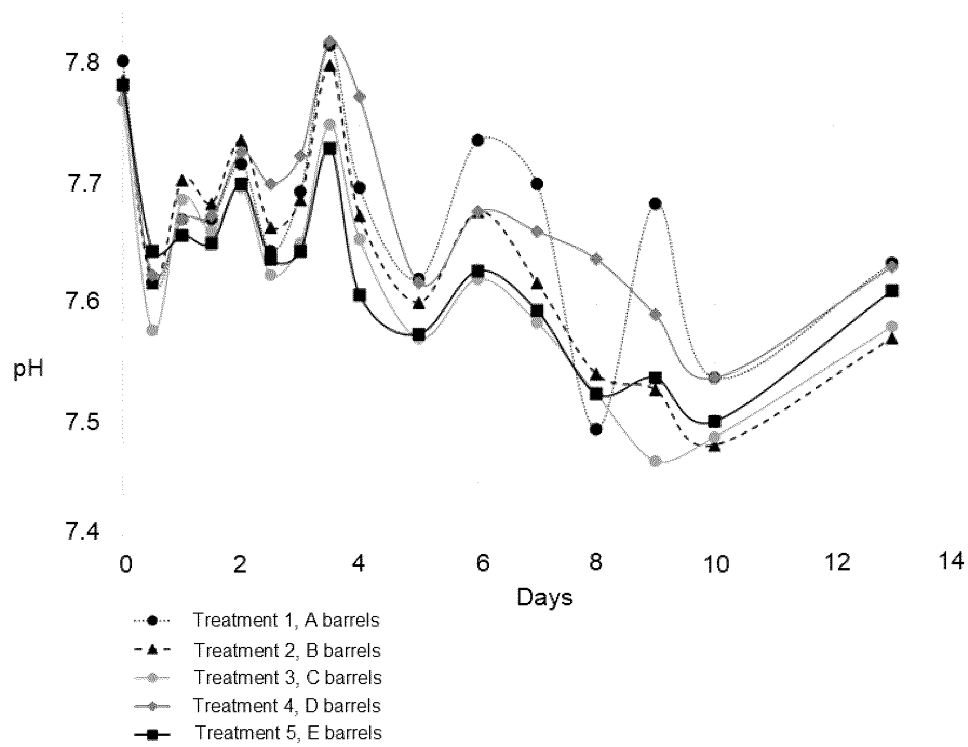


FIG. 15

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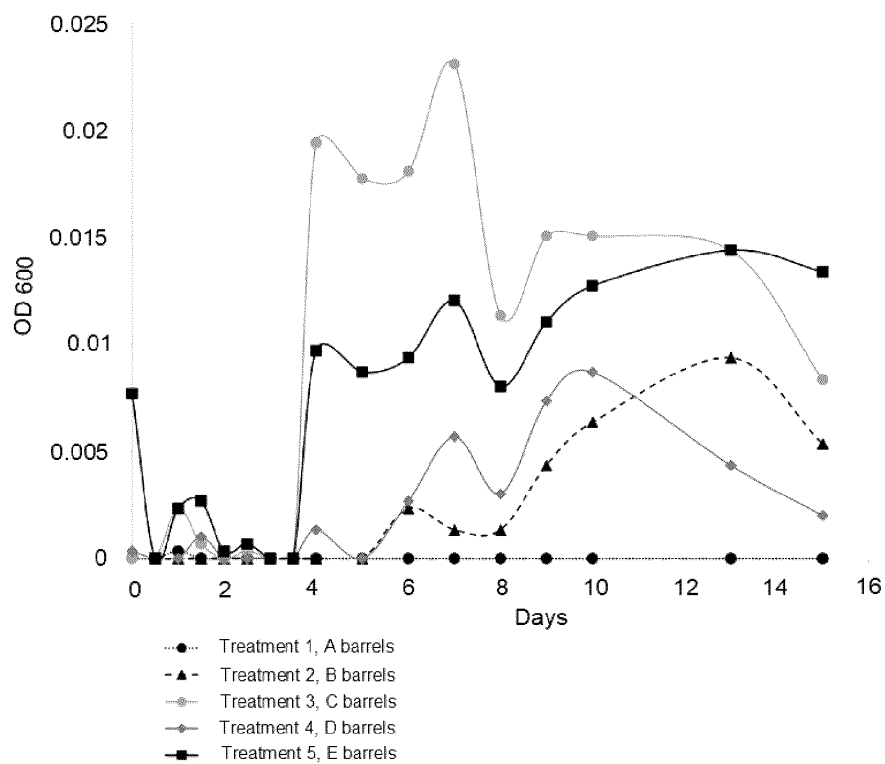


FIG. 16

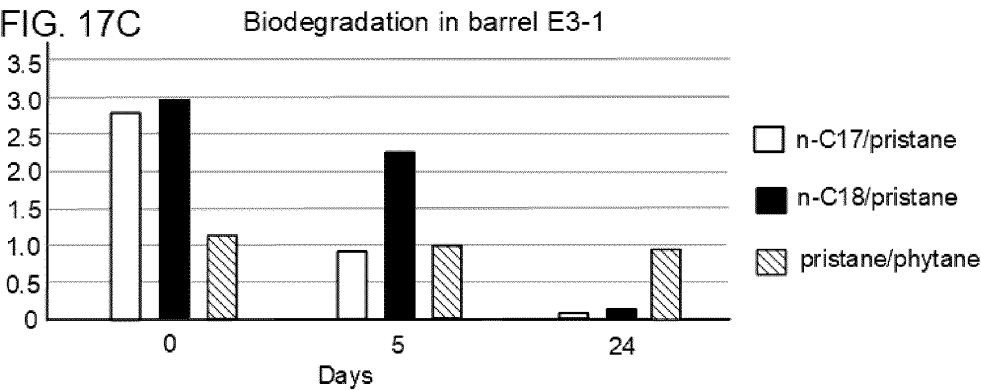
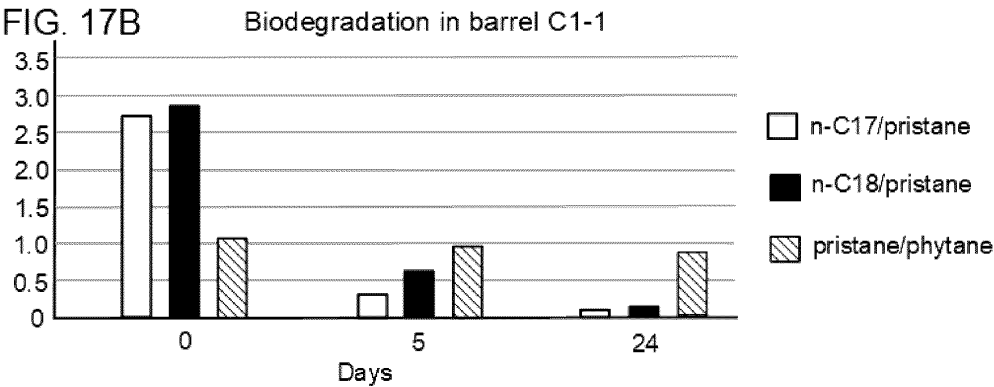
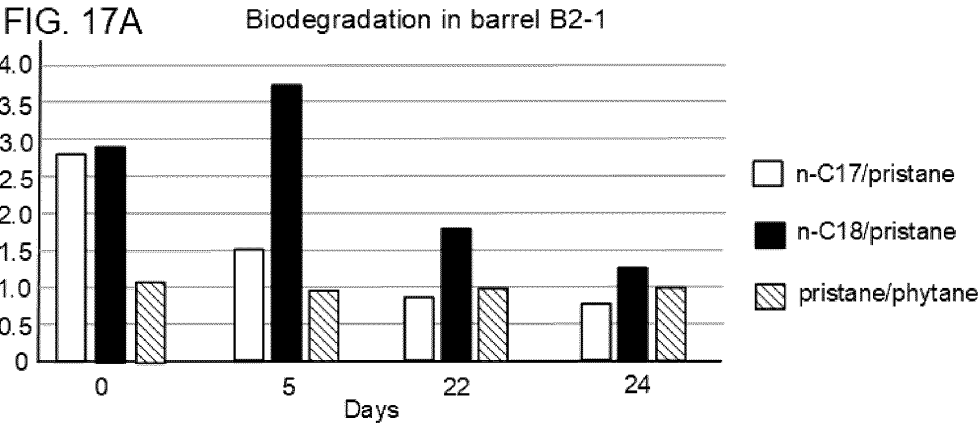


FIG. 17

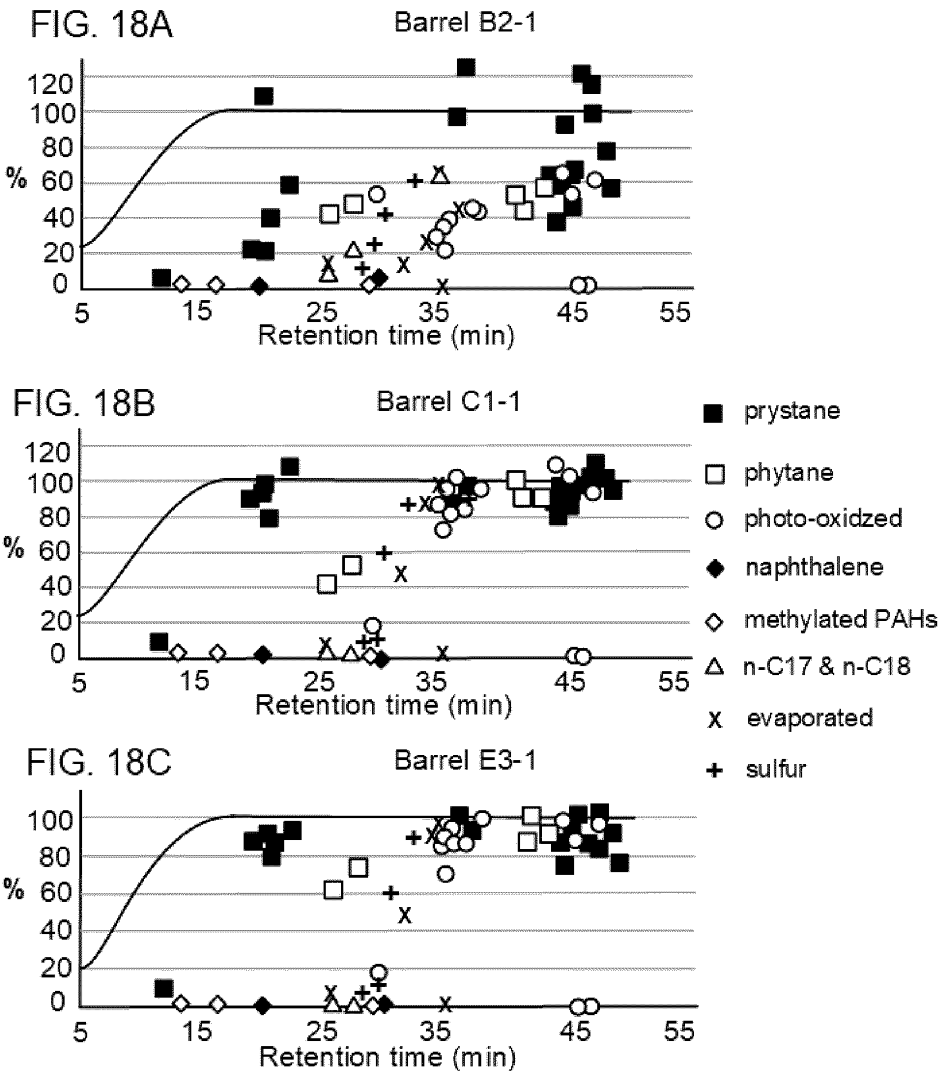


FIG. 18

FIG. 19A

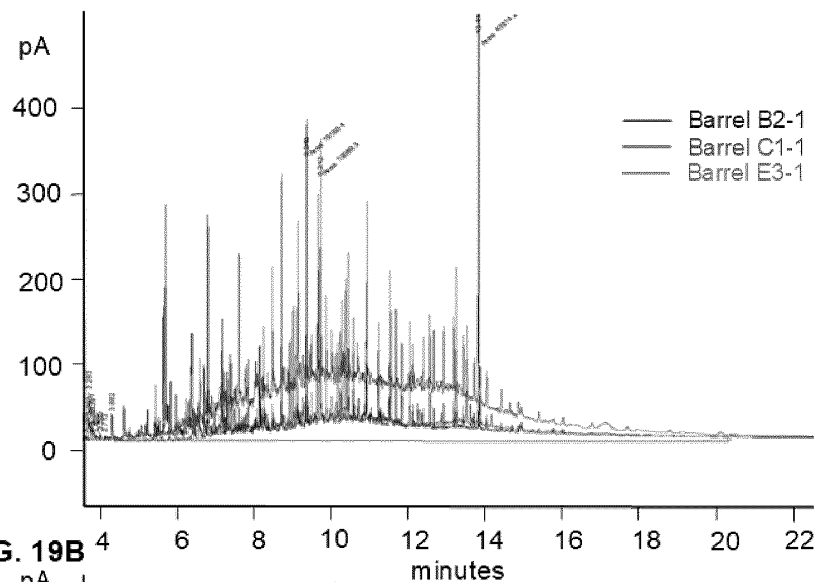


FIG. 19B

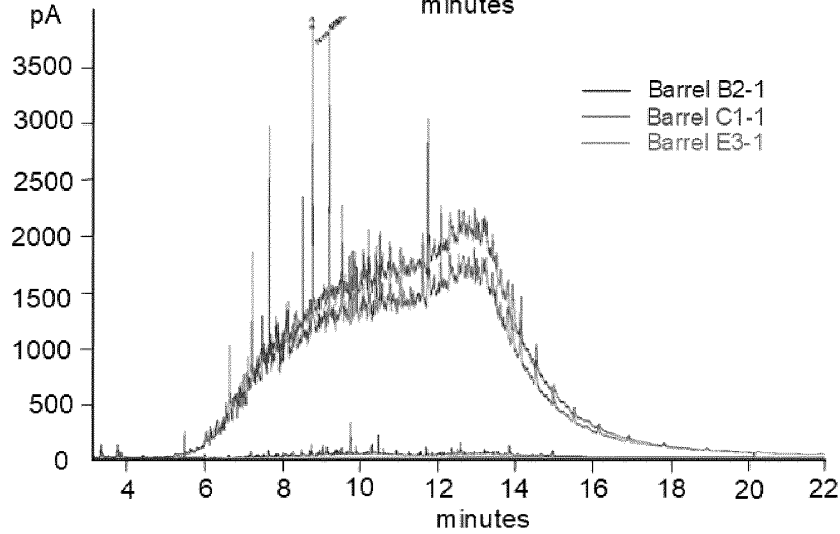


FIG. 19

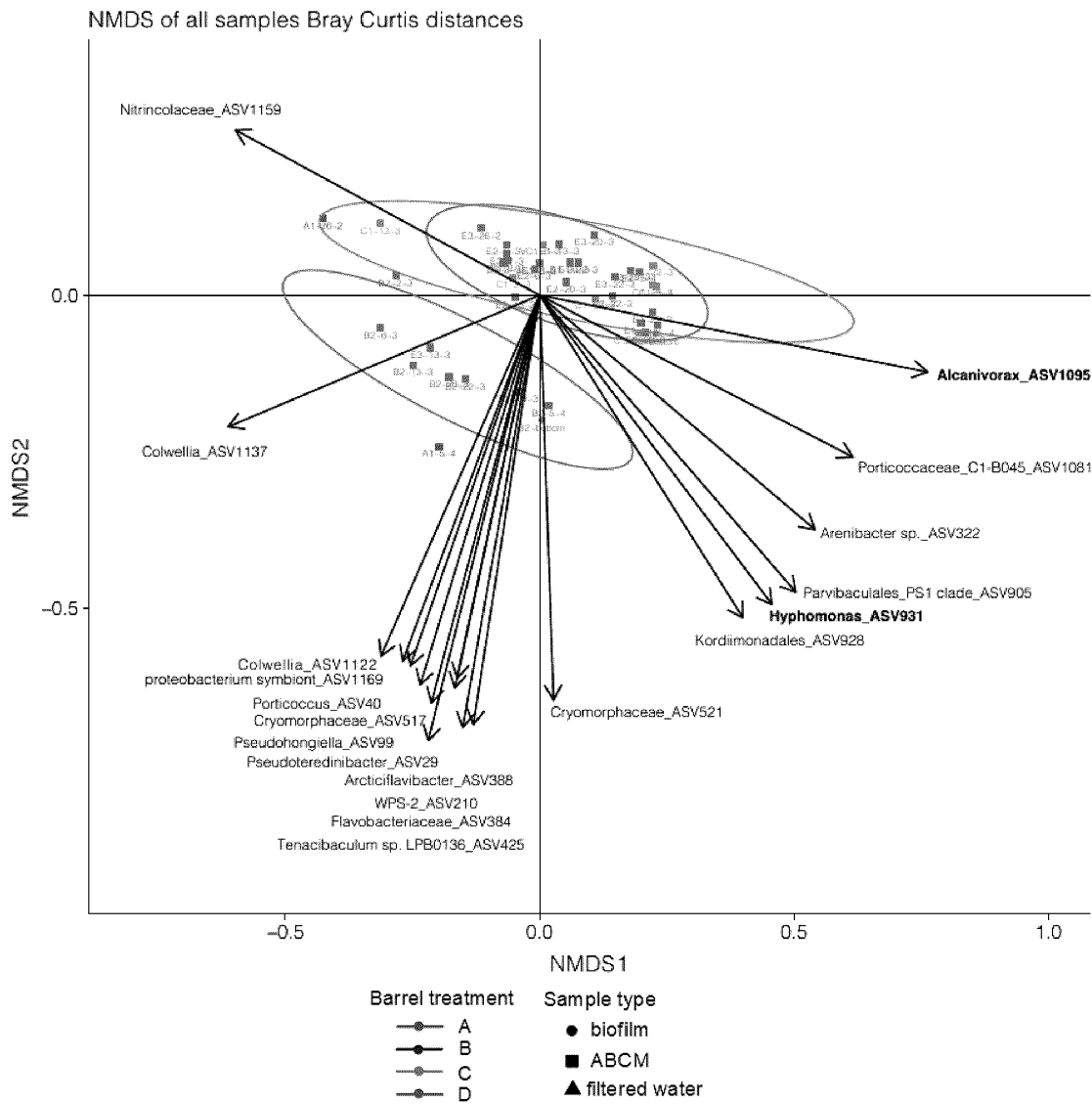


FIG. 20

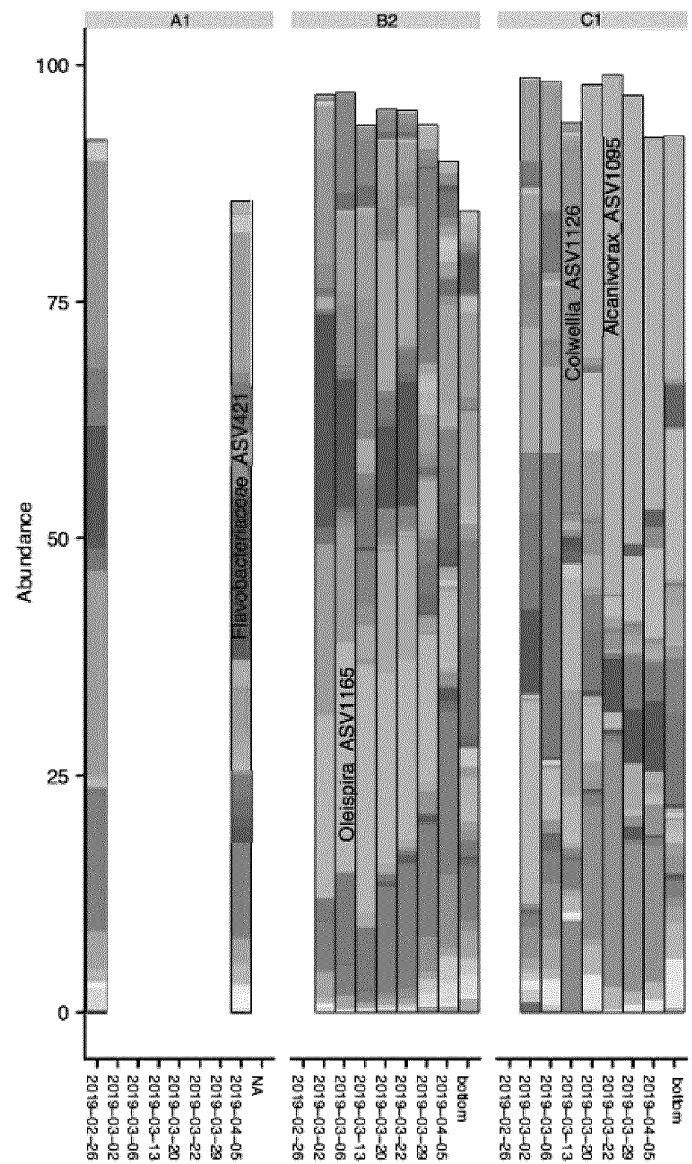


FIG. 21A

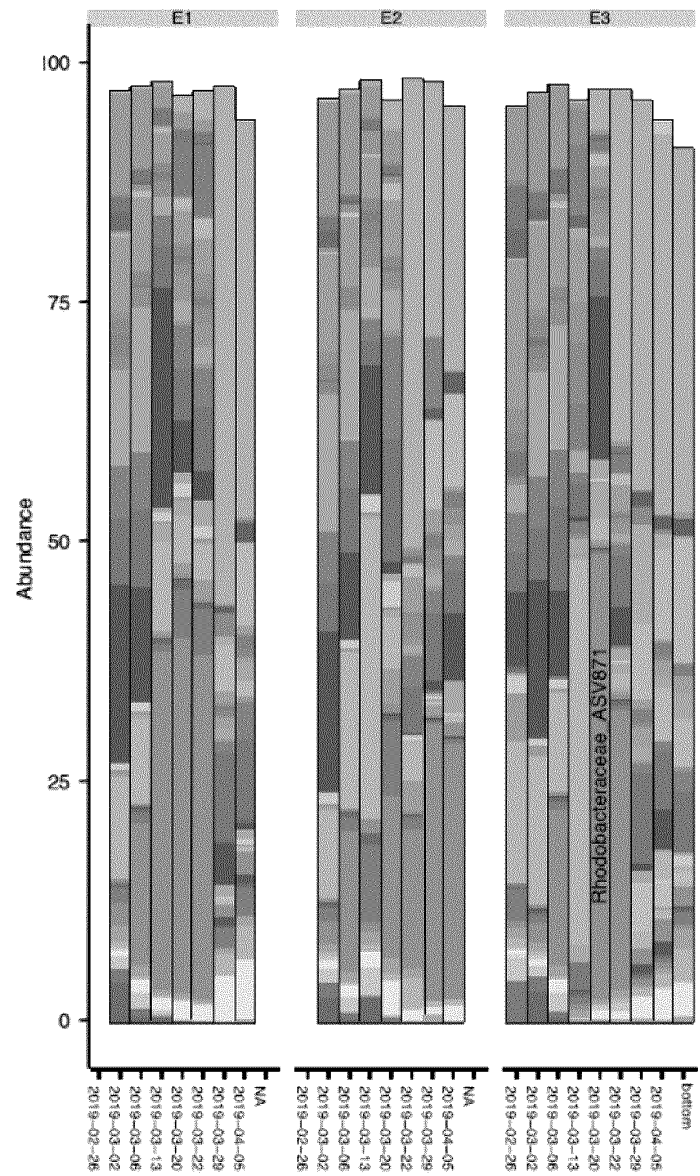


FIG. 21B

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Absconditabacteriales (SR1)_ASV607	Chloroplast_ASV631
Aestuariicella_ASV26	Colwellia_ASV1119
Alcanivorax_ASV1095	Colwellia_ASV1125
Alteromonadaceae_ASV1050	Colwellia_ASV1126
Amphritea_ASV1176	Colwellia_ASV1134
Arcobacter_ASV1003	Crocinitomix_ASV538
Arcobacter_ASV1006	Cryomorphaceae_ASV457
Arcobacter_ASV989	Cryomorphaceae_ASV461
Arcobacter_ASV991	Cryomorphaceae_ASV488
Arenibacter_ASV322	Cryomorphaceae_ASV500
Bacteria_ASV710	Cryomorphaceae_ASV510
Bacteria_ASV712	Cryomorphaceae_ASV519
Bacteria_ASV738	Cryomorphaceae_ASV541
Bacteriovoracaceae_ASV971	Cyclobacterium_ASV587
Bacteriovoracaceae_ASV973	Cycloclasticus_ASV1065
bacterium episymbiont of Kiwa sp._ASV495	DEV007_ASV153
Bdellovibrio_ASV185	DEV007_ASV156
C1-B045_ASV1081	Dokdonia_ASV439
Cafeteria_ASV634	Euryarchaeota archaeon SCGC
Candidatus Nitrosopumilus_ASV642	Flavobacteriaceae_ASV314
Chitinophagales_ASV542	Flavobacteriaceae_ASV357

FIG. 21C

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Flavobacteriaceae_ASV376	Mitochondria_ASV805
Flavobacteriaceae_ASV380	Moritella_ASV77
Flavobacteriaceae_ASV405	Neptuniibacter_ASV1143
Flavobacteriaceae_ASV409	Nitrincolaceae_ASV1159
Flavobacteriaceae_ASV417	Nitrincolaceae_ASV1171
Flavobacteriaceae_ASV421	NS11-12 marine group_ASV498
Flavobacteriales_ASV449	NS3a marine group_ASV312
Glaciecola_ASV1053	NS4 marine group_ASV398
JGI 0000069-P22_ASV276	Oceanospirillales_ASV1075
JGI 0000069-P22_ASV277	Oleispira_ASV1165
Legionellaceae_ASV21	OM43 clade_ASV1027
Lentimonas_ASV142	PB19_ASV663
Lentisphaera_ASV650	Photobacterium_ASV88
Luteolibacter algae_ASV158	Profundimonas_ASV1169
Marinobacter_ASV1116	Proteobacteria_ASV708
Marinobacterium_ASV1148	PS1 clade_ASV905
Micavibrionaceae_ASV934	Pseudoalteromonas_ASV79
Micavibrionales_ASV756	Pseudofulvibacter_ASV369
Mitochondria_ASV728	Pseudohongiella_ASV97
Mitochondria_ASV797	Pseudohongiella_ASV99
Mitochondria_ASV799	Pseudomonas sabulinigri_ASV1151

FIG. 21D

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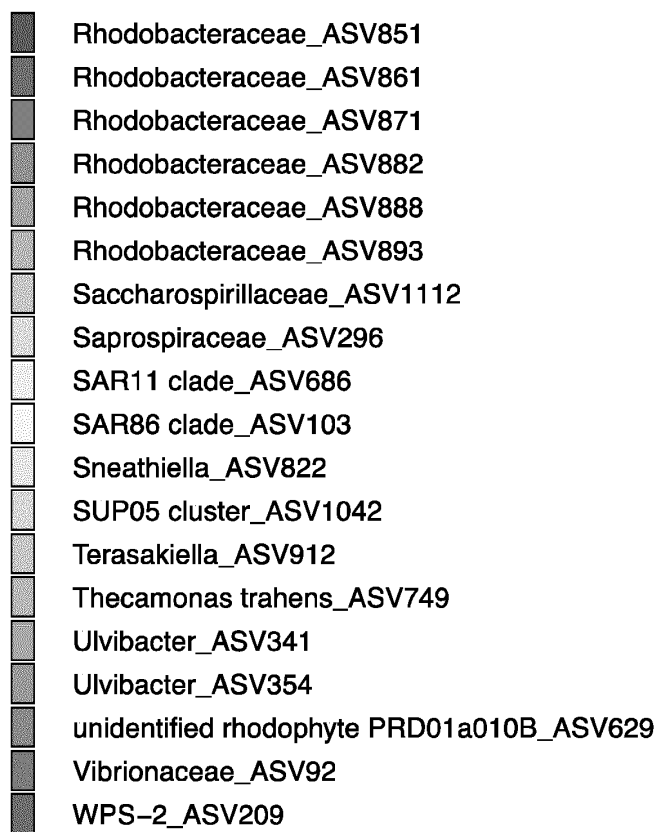


FIG. 21E

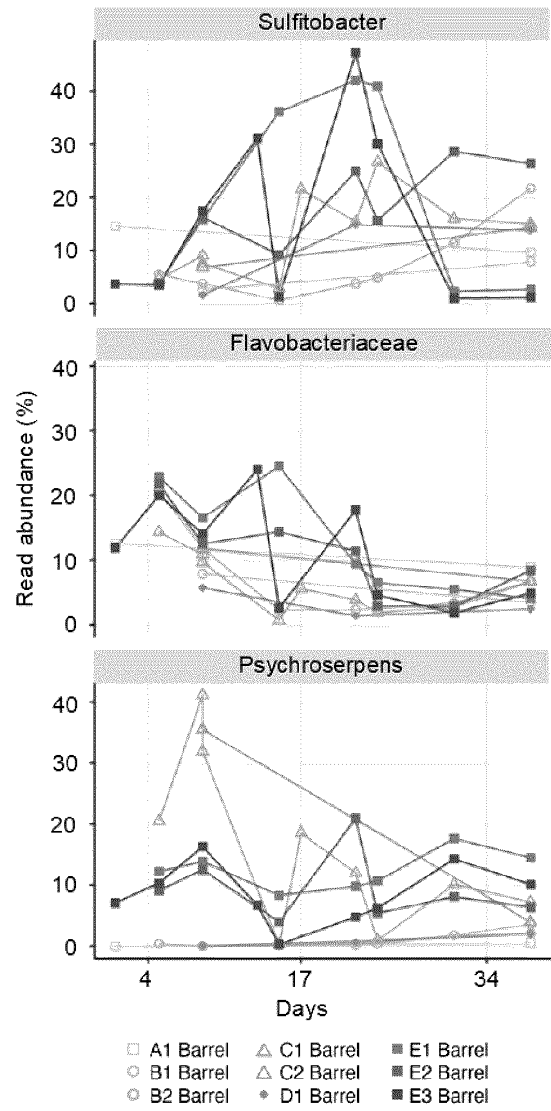


FIG. 22A

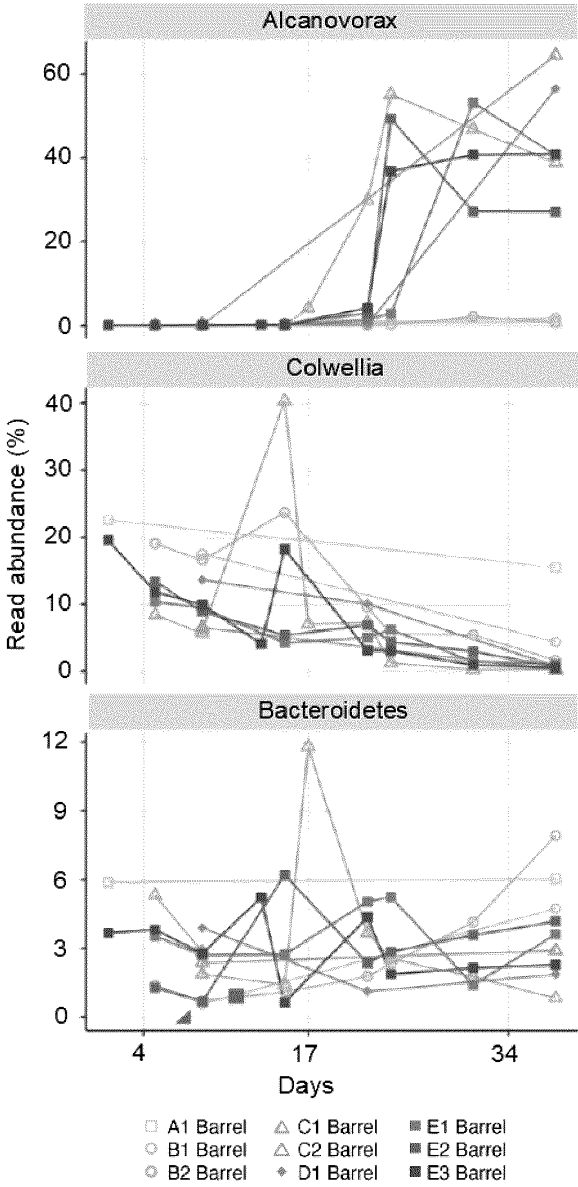


FIG. 22B

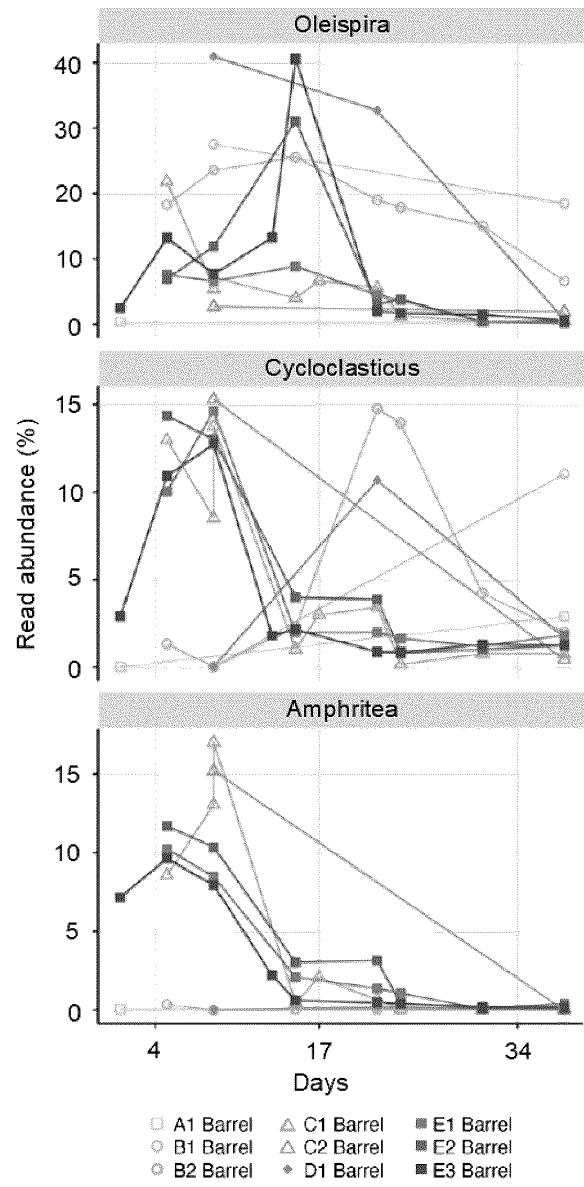


FIG. 22C

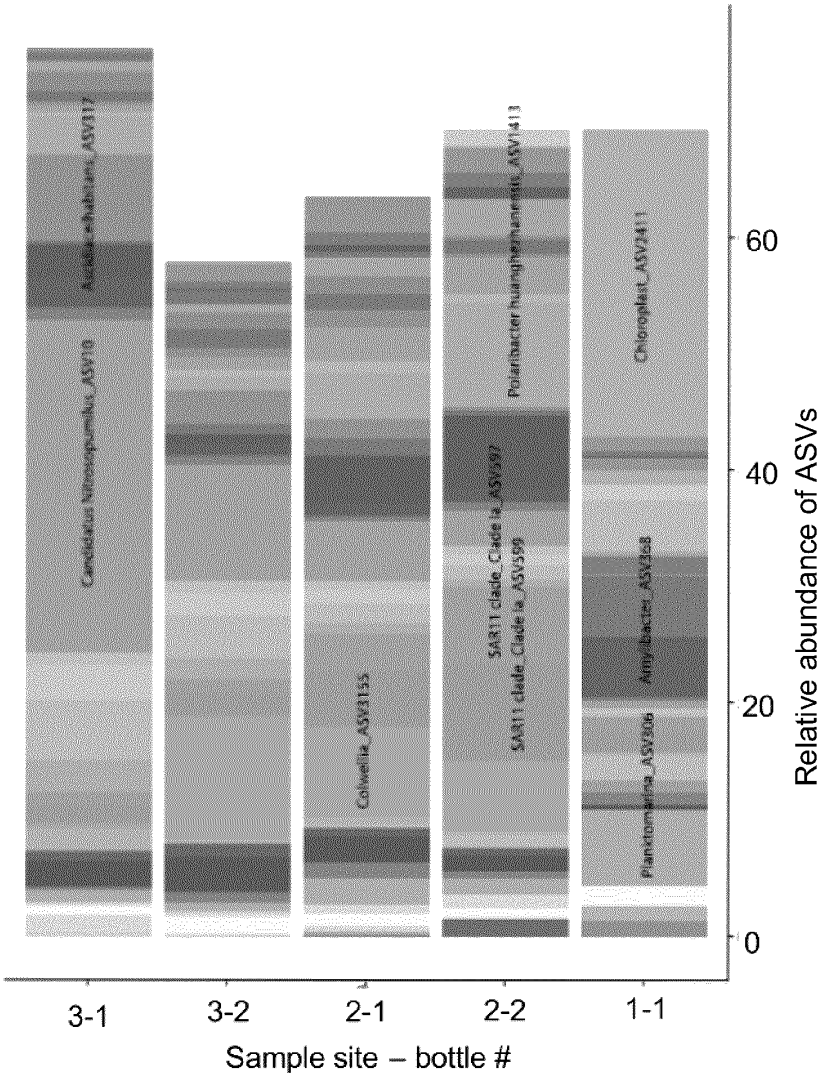


FIG. 23A

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	D_0__Bacteria_ASV29
	D_3__Chloroplast_ASV2411
	D_3__Chloroplast_ASV2416
	D_3__Chloroplast_ASV2417
	D_3__Chloroplast_ASV2418
	D_3__Kordimonadales_ASV622
	D_3__Marine Group II_ASV17
	D_3__SAR86 clade_ASV2728
	D_3__SAR86 clade_ASV2729
	D_3__SAR86 clade_ASV2731
	D_4__Clade II_ASV605
	D_4__Cryomorphaceae_ASV1105
	D_4__Cryomorphaceae_ASV1107
	D_4__Flavobacteriaceae_ASV1310
	D_4__PS1 clade_ASV265
	D_4__Pseudoalteromonadaceae_ASV2641
	D_4__Pseudoalteromonadaceae_ASV2643
	D_5__[Polaribacter] huanghezhanensis_ASV1413
	D_5__[Polaribacter] huanghezhanensis_ASV1416
	D_5__Amylibacter_ASV368
	D_5__Asciaceihabitans_ASV317
	D_5__Candidatus Actinomarina_ASV2261
	D_5__Candidatus Aquiluna_ASV2233
	D_5__Candidatus Nitrosopumilus_ASV10
	D_5__Candidatus Nitrosopumilus_ASV11
	D_5__Candidatus Nitrosopumilus_ASV14
	D_5__Candidatus Nitrosopumilus_ASV7
	D_5__Candidatus Nitrosopumilus_ASV8
	D_5__Clade Ia_ASV597
	D_5__Clade Ia_ASV599
	D_5__Colwellia_ASV3155
	D_5__Lentibacter_ASV428
	D_5__Marinomonas_ASV3075
	D_5__NS3a marine group_ASV1512
	D_5__NS4 marine group_ASV1497
	D_5__NS5 marine group_ASV1498
	D_5__OM43 clade_ASV2870
	D_5__OM43 clade_ASV2872
	D_5__Paraglaciecola_ASV3021
	D_5__Planktomarina_ASV306
	D_5__Profundimonas_ASV3190
	D_5__SUP05 cluster_ASV2536
	D_5__Sva0996 marine group_ASV2270
	D_5__Synechococcus CC9902_ASV2460
	D_6__Marinimicrobia bacterium SCGC AA
	D_6__Saprospira sp. CNJ640_ASV1036

FIG. 23B

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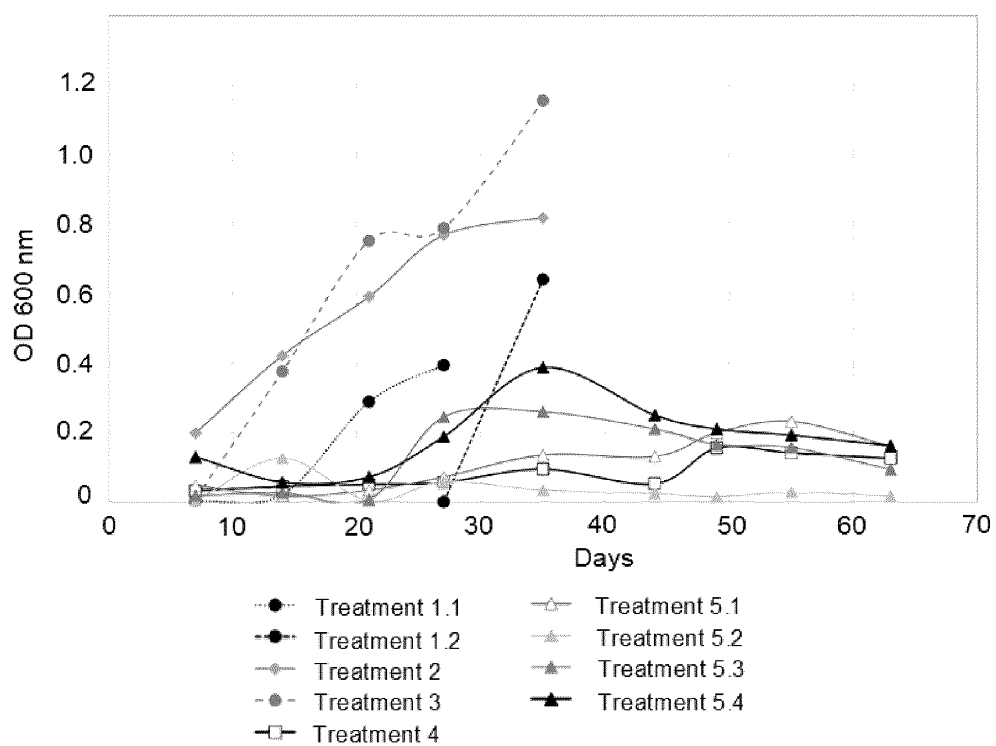


FIG. 24

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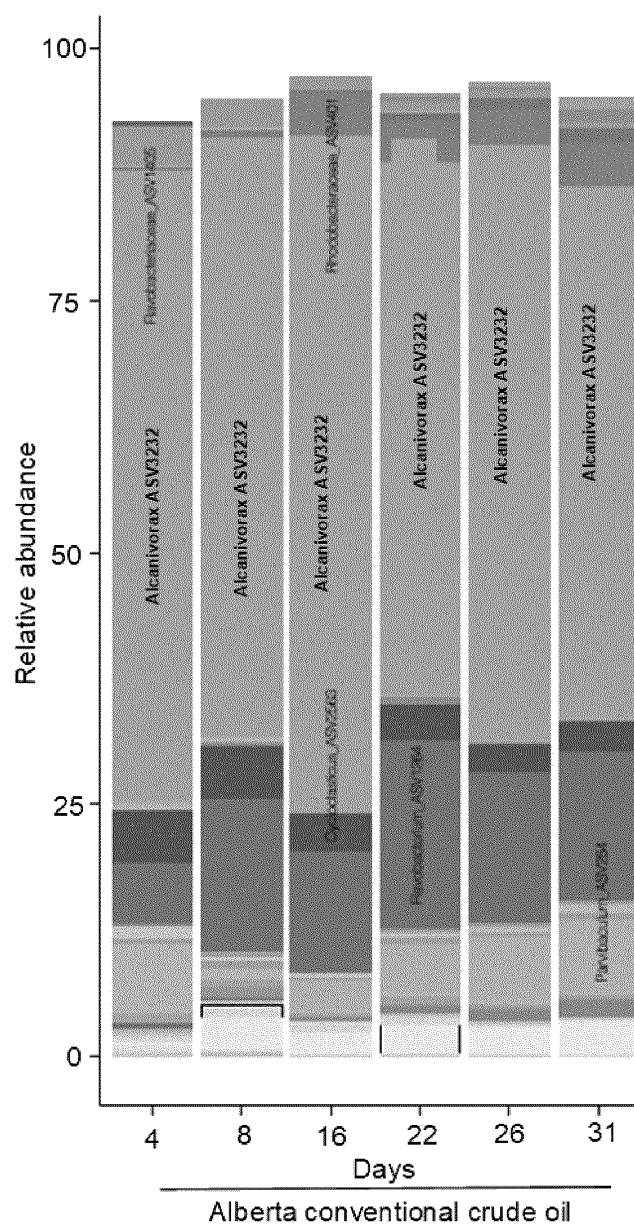


FIG. 25A

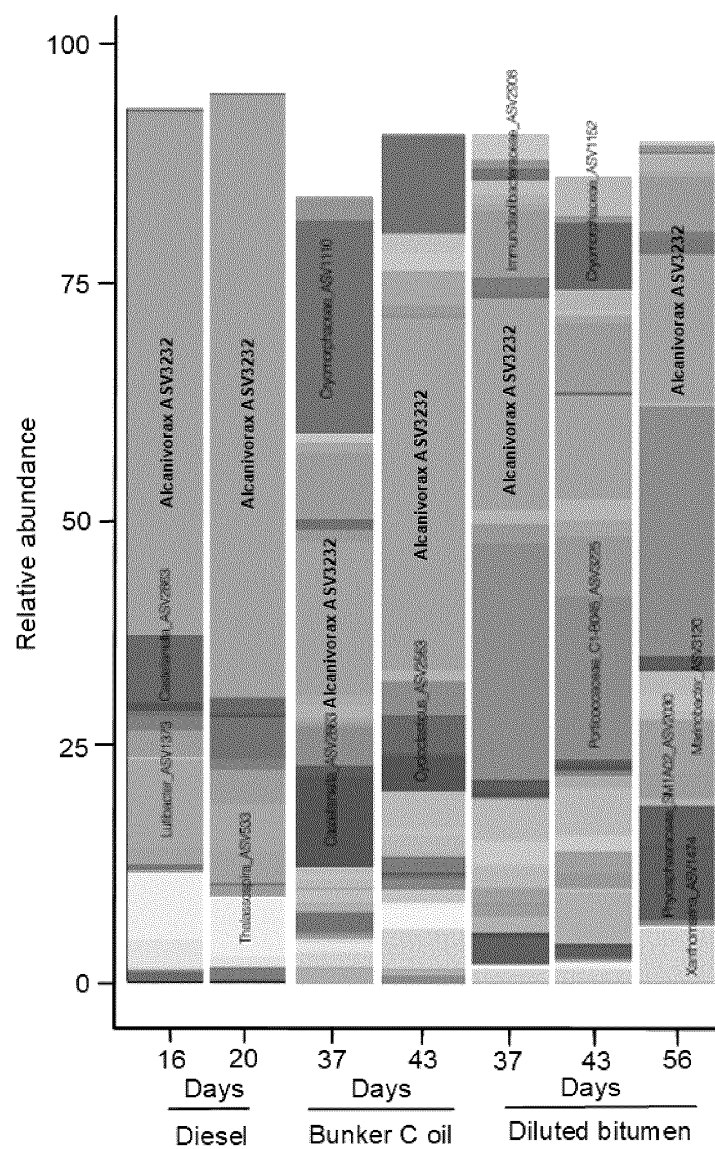


FIG. 25B

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D_0	Bacteria	ASV124	D_5	Marinobacter	ASV3120
D_1	BRC1	ASV2284	D_5	Marinobacter	ASV3121
D_3	Chlamydiales	ASV2086	D_5	Marinobacter	ASV3122
D_3	NRL2	ASV252	D_5	Muricauda	ASV1336
D_3	Puniceispirillales	ASV539	D_5	Oleispira	ASV3080
D_4	Chitinophagaceae	ASV1103	D_5	Oleispira	ASV3082
D_4	Cryomorphaceae	ASV1108	D_5	OM27 clade	ASV2108
D_4	Cryomorphaceae	ASV1110	D_5	Parvibaculum	ASV254
D_4	Cryomorphaceae	ASV1133	D_5	Peredibacter	ASV2516
D_4	Cryomorphaceae	ASV1152	D_5	Pseudohongiella	ASV2692
D_4	Cyclobacteriaceae	ASV1654	D_5	Pseudohongiella	ASV2760
D_4	DEV007	ASV1943	D_5	Pseudohongiella	ASV2761
D_4	Flavobacteriaceae	ASV1272	D_5	Pseudomonas	ASV3204
D_4	Flavobacteriaceae	ASV1405	D_5	Pseudophaeobacter	ASV3501
D_4	Flavobacteriaceae	ASV1412	D_5	Pusillimonas	ASV2856
D_4	Flavobacteriaceae	ASV1415	D_5	Roseivirga	ASV1659
D_4	Flavobacteriaceae	ASV1463	D_5	Ruegeria	ASV400
D_4	Flavobacteriaceae	ASV1485	D_5	SM1A02	ASV2007
D_4	Francisellaceae	ASV2545	D_5	SM1A02	ASV2018
D_4	Halieaceae	ASV2719	D_5	SM1A02	ASV2030
D_4	Immundisolibacteraceae	ASV2907	D_5	Sneathiella	ASV626
D_4	Immundisolibacteraceae	ASV2908	D_5	Sneathiella	ASV636
D_4	Legionellaceae	ASV3054	D_5	SUP05 cluster	ASV2536
D_4	Mitochondria	ASV117	D_5	Tenacibaculum	ASV1391
D_4	Phycisphaeraceae	ASV1998	D_5	Thalassospira	ASV531
D_4	Rhodobacteraceae	ASV389	D_5	Thalassospira	ASV532
D_4	Rhodobacteraceae	ASV391	D_5	Thalassospira	ASV533
D_4	Rhodobacteraceae	ASV401	D_5	Vitellibacter	ASV1267
D_4	Rhodobacteraceae	ASV416	D_5	Winogradskyella	ASV1480
D_4	Rhodobacteraceae	ASV434	D_5	Xanthomarina	ASV1474
D_5	Aestuariicella	ASV3220	D_6	Aequorivita antarctica	ASV1280
D_5	Alcanivorax	ASV3232	D_6	Arenibacter sp.	ASV1344
D_5	Alkanindiges	ASV2771	D_6	Lewinella sp. CZ-AZ5	ASV1077
D_5	Alteromonas	ASV3007	D_6	Nitrosomonas sp. enrichment culture	
D_5	Arenibacter	ASV1341	D_6	Shewanella algae	ASV2630
D_5	C1-B045	ASV3222	D_6	Stenotrophomonas rhizophila	ASV27
D_5	C1-B045	ASV3224			
D_5	C1-B045	ASV3225			
D_5	C1-B045	ASV3228			
D_5	Candidatus Berkiella	ASV			
D_5	Castellaniella	ASV2863			
D_5	Cycloclasticus	ASV2562			
D_5	Cycloclasticus	ASV2563			
D_5	Flavobacterium	ASV1253			
D_5	Flavobacterium	ASV1264			
D_5	Flavobacterium	ASV1265			
D_5	Gaetbulibacter	ASV1443			
D_5	Gallaecimonas	ASV3001			
D_5	Gimesia	ASV2052			
D_5	Gimesia	ASV2053			
D_5	GKS98 freshwater group				
D_5	HIMB11	ASV397			
D_5	Hyphomonas	ASV273			
D_5	KCM-B-112	ASV2914			
D_5	KCM-B-112	ASV2915			
D_5	Kordiimonas	ASV287			
D_5	Lutibacter	ASV1373			

FIG. 25C

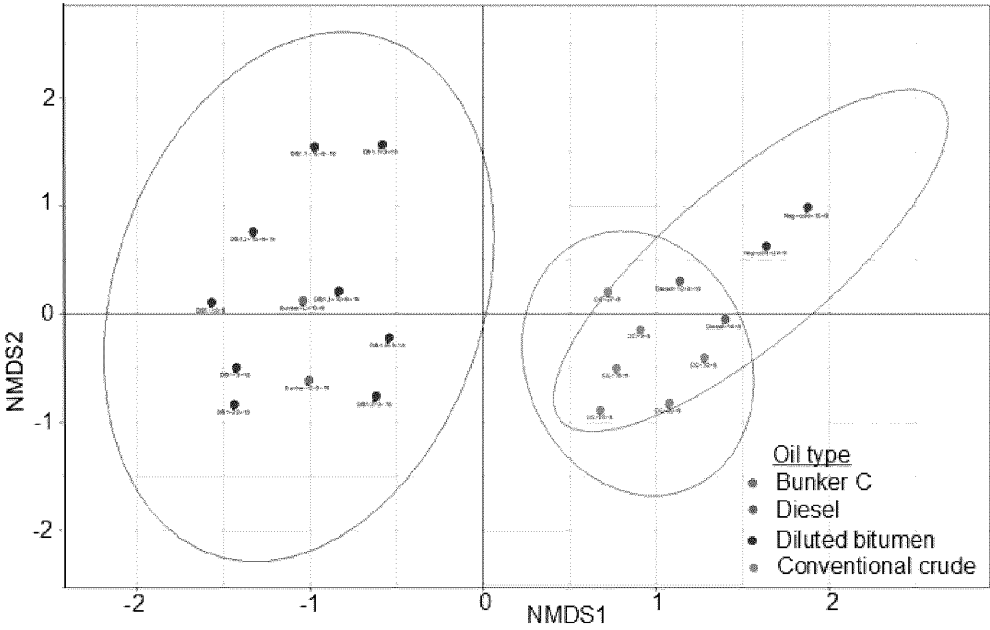


FIG. 26

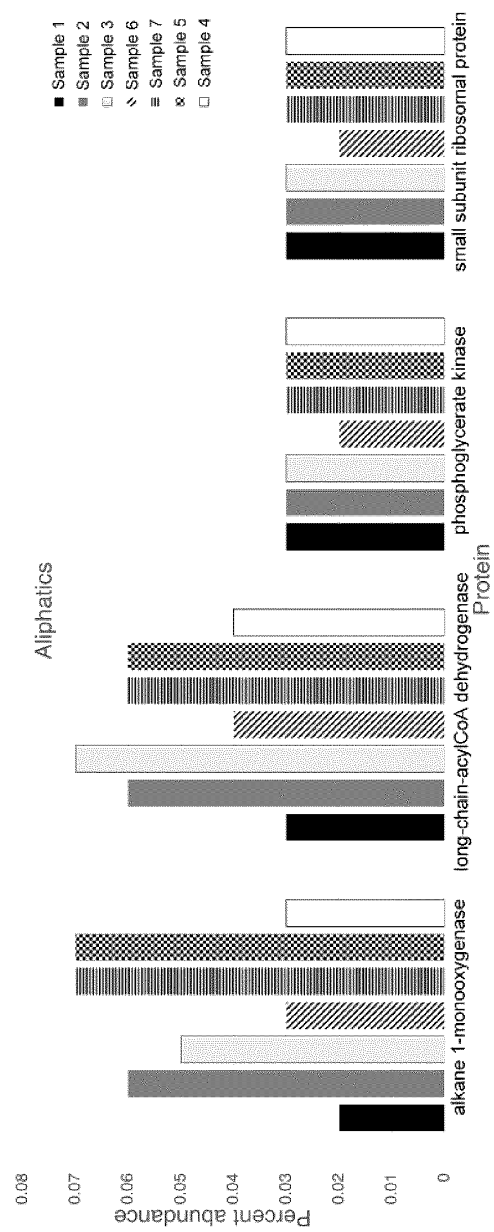


FIG. 27

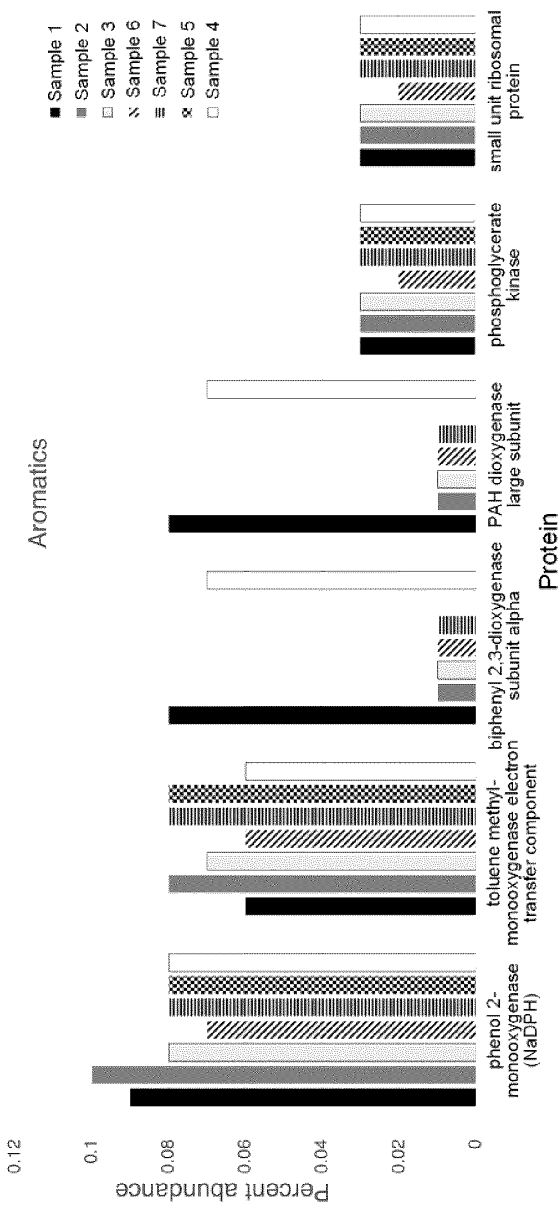


FIG. 28

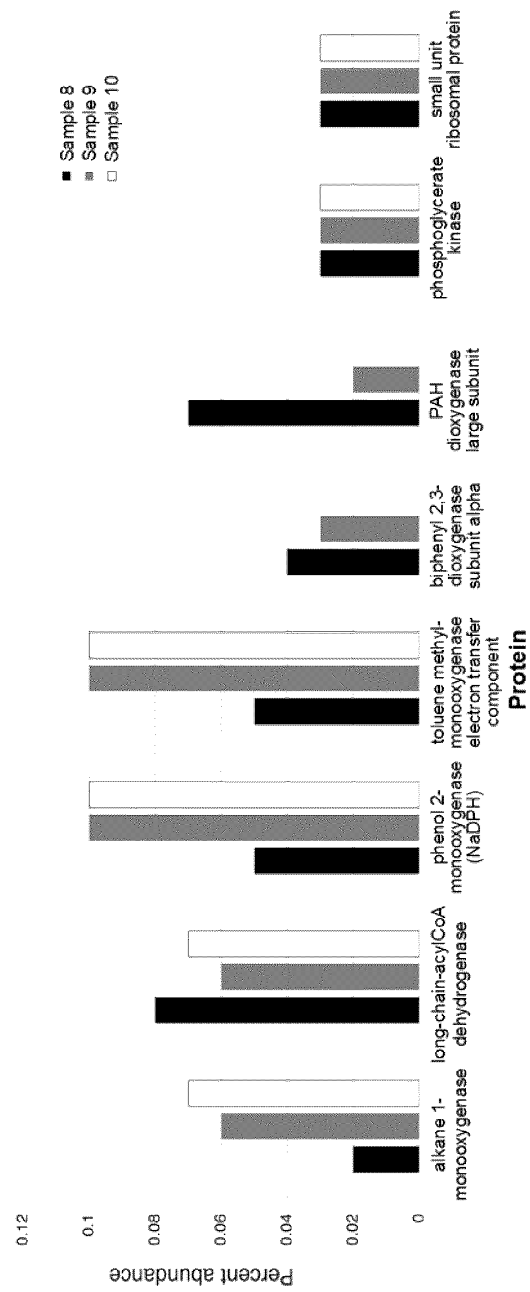


FIG. 29

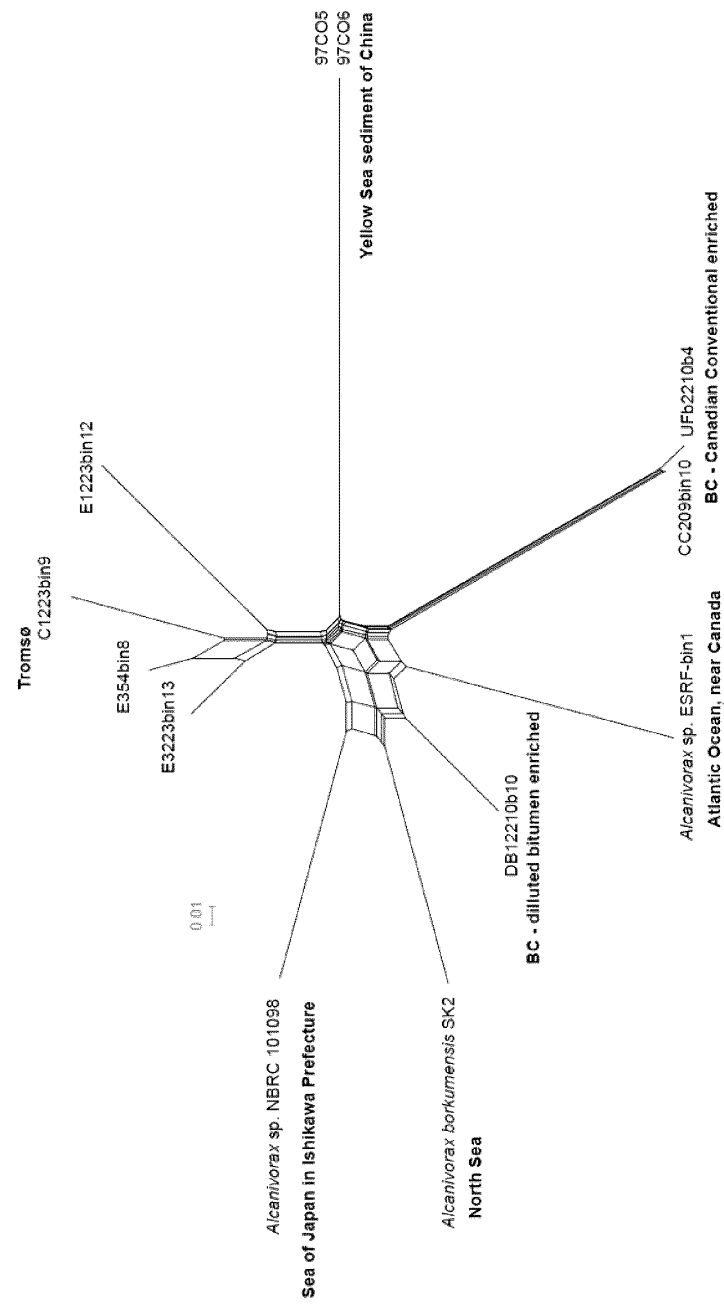


FIG. 29

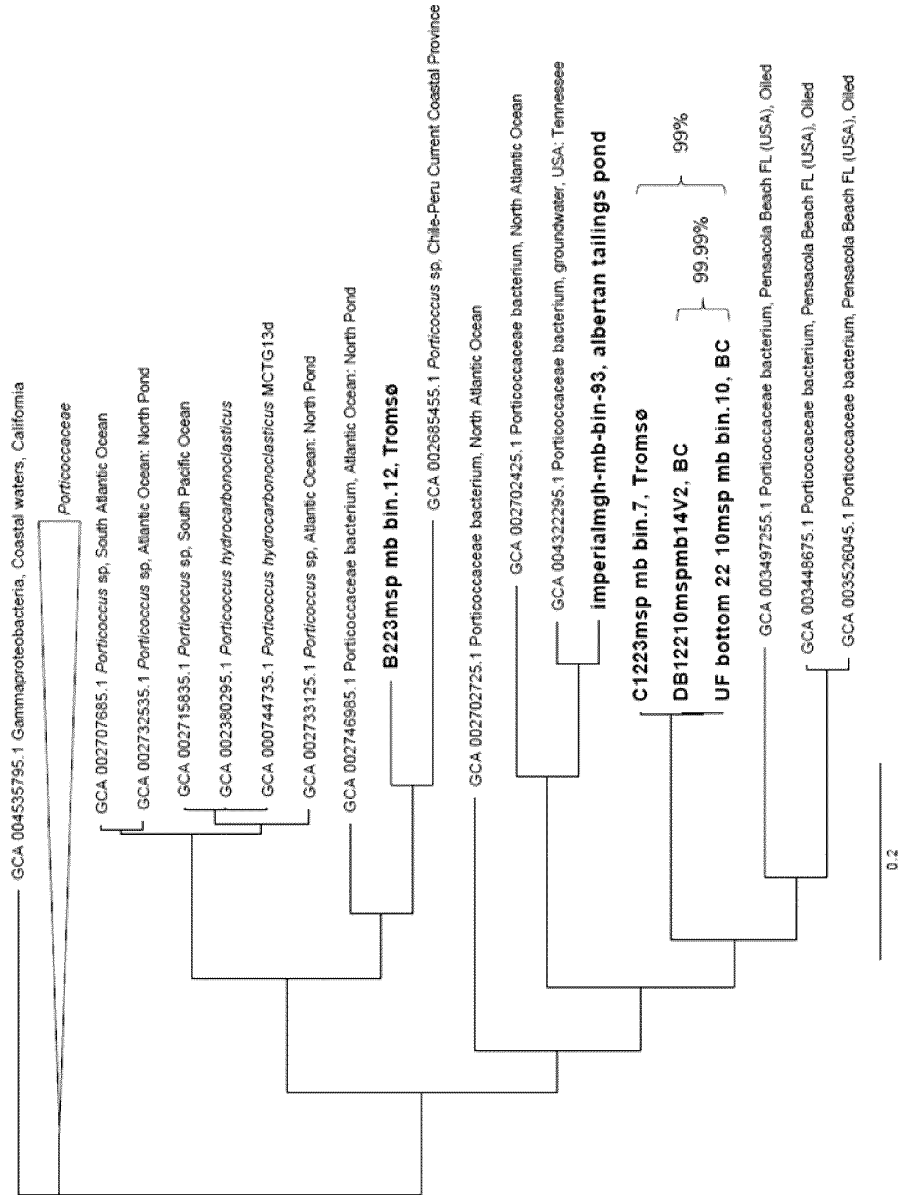


FIG. 30

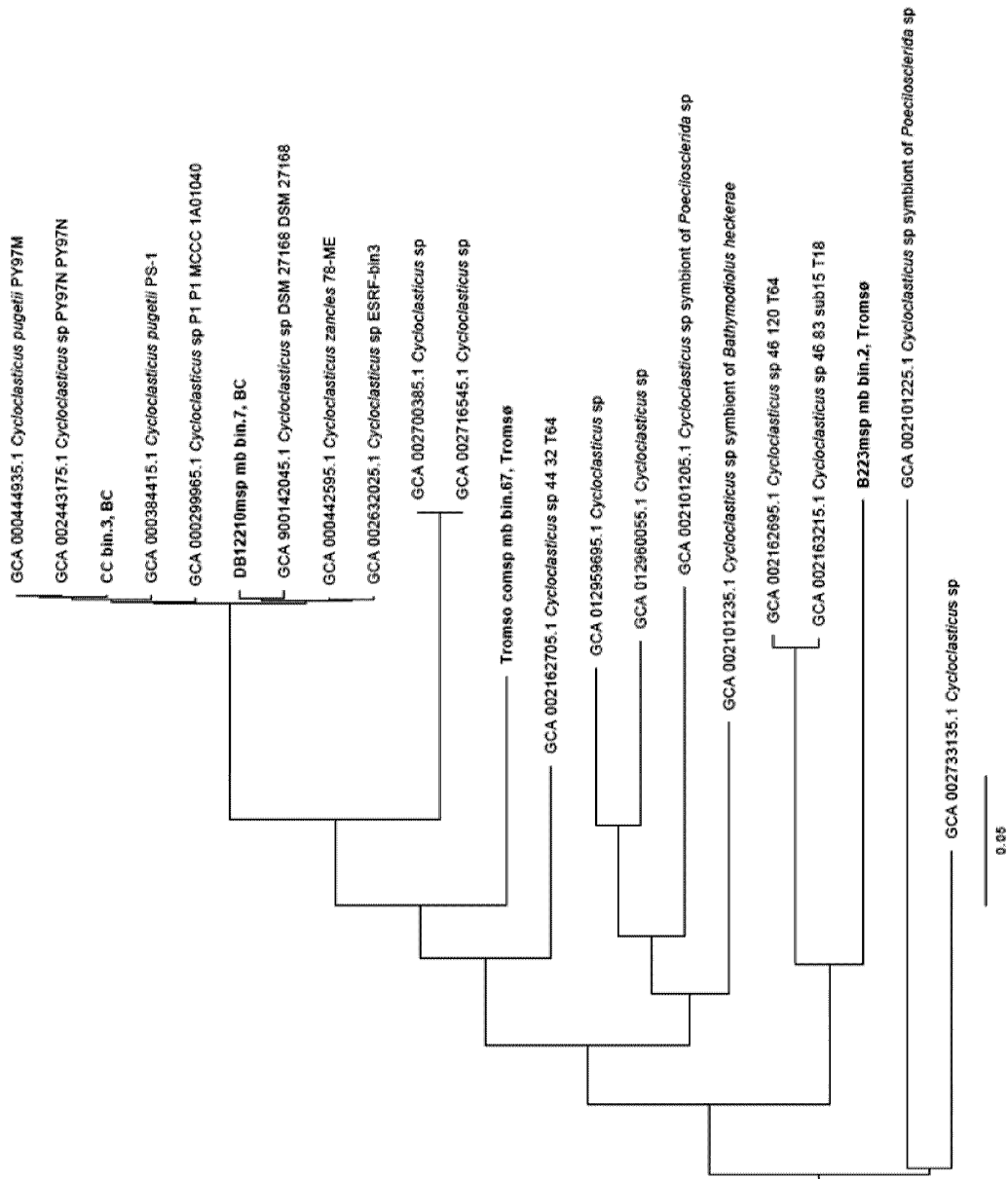


FIG. 32