

**Supplementary Table 8: Phyla differently distributed between sampled sites**

**Mean abundance of phyla at different sampled sites**

Genus	OAX		S/
	mean	SEM	mean
Acinetobacter	0.0086	0.0046	0.0006
Actinobaculum	0.0171	0.0090	0.0220
Actinomyces	7.0196	1.6013	5.2633
Alloprevotella	4.7929	1.6066	5.2003
Anaerococcus	0.0220	0.0214	0.0000
Atopobium	0.5096	0.1371	0.3860
Bacteroides	0.1224	0.0916	0.0306
Brevundimonas	0.1297	0.1099	0.0012
Campylobacter	2.7522	0.9311	2.4016
Capnocytophaga	0.0887	0.0434	0.2245
Corynebacterium	0.8998	0.8063	0.0911
Dermacoccus	0.0771	0.0669	0.0012
Enhydrobacter	0.1028	0.0657	0.0104
Enterococcus	0.0025	0.0025	0.0000
Eubacterium	0.4074	0.2441	0.9604
Fusobacterium	4.0918	0.8501	8.2399
Gemella	1.8168	0.3766	3.9175
Granulicatella	2.3440	0.4184	2.5960
Haemophilus	6.1289	1.2866	4.9746
Helicobacter	0.2465	0.2087	0.0508
Janthinobacterium	0.0318	0.0221	0.0000
Kingella	0.0092	0.0035	0.0508
Kocuria	0.0275	0.0168	0.0000
Lachnoanaerobaculum	0.4515	0.1751	0.8130
Leptotrichia	5.8677	2.3614	6.4451
Micrococcus	0.0392	0.0209	0.0018
Moryella	0.3683	0.1044	0.3952
Neisseria	3.0200	2.0420	1.8680
Olsenella	0.0465	0.0338	0.1120
Oribacterium	0.2000	0.0458	0.4325
Paracoccus	0.0581	0.0280	0.0018
Parvimonas	0.7983	0.5202	1.6610
Porphyromonas	1.4339	0.4676	1.8364
Prevotella	12.8285	1.5098	16.6922
Propionibacterium	1.7073	1.3732	0.0538
Pseudomonas	0.2869	0.1721	0.0080
Rothia	1.7420	0.2823	1.8580
Schlegelella	0.0000	0.0000	0.0018
Staphylococcus	1.2155	1.0924	0.1902
Streptococcus	21.1718	4.3164	22.7935

Tannerella	0.0954	0.0254	0.4411
Tessaracoccus	0.0031	0.0031	0.0392
Treponema	2.4555	0.9600	1.3776
Veillonella	7.7139	1.5935	2.2842

**Phyla differently distributed between sampled sites.** Given are those phyla, with

	OAX/OAH	SAX/SAH	DAX/DAH
Acinetobacter	ns	ns	ns
Actinobaculum	ns	ns	ns
Actinomyces	ns	ns	ns
Alloprevotella	ns	ns	ns
Anaerococcus	ns	ns	ns
Atopobium	ns	ns	ns
Bacteroides	ns	ns	ns
Brevundimonas	ns	ns	ns
Campylobacter	ns	ns	ns
Capnocytophaga	ns	ns	ns
Corynebacterium	ns	ns	ns
Dermacoccus	ns	ns	ns
Enhydrobacter	ns	ns	ns
Enterococcus	ns	ns	ns
Eubacterium	ns	ns	ns
Fusobacterium	ns	ns	ns
Gemella	ns	ns	ns
Granulicatella	ns	ns	ns
Haemophilus	ns	0.0283	ns
Helicobacter	ns	0.0003	0.0006
Janthinobacterium	ns	ns	ns
Kingella	ns	ns	ns
Kocuria	ns	ns	ns
Lachnoanaerobaculum	ns	ns	ns
Leptotrichia	ns	ns	ns
Micrococcus	ns	ns	ns
Moryella	ns	ns	ns
Neisseria	ns	ns	ns
Olsenella	ns	ns	ns
Oribacterium	ns	ns	ns
Paracoccus	ns	ns	ns
Parvimonas	ns	ns	ns
Porphyromonas	ns	ns	ns
Prevotella	ns	ns	ns
Propionibacterium	ns	ns	ns
Pseudomonas	ns	ns	ns
Rothia	ns	ns	ns
Schlegelella	ns	ns	ns
Staphylococcus	ns	ns	ns
Streptococcus	ns	ns	ns
Tannerella	ns	ns	ns
Tessaracoccus	ns	ns	ns

Treponema  
Veillonella

ns  
ns

ns  
ns

ns  
ns

\X	DAX		OAH		Sf	
	SEM	mean	SEM	mean		
	0.0006	0.3377	0.2955	0.0024	0.0024	0.0000
	0.0085	0.06485	0.0281	0.0294	0.0156	0.0343
	1.1799	7.7530	1.4997	9.5613	2.6485	5.5692
	1.3186	1.4639	0.5470	1.5073	0.6326	1.8486
	0.0000	0.0728	0.0344	0.0000	0.0000	0.0000
	0.0836	0.7341	0.2498	0.5909	0.1945	0.5995
	0.0109	0.1407	0.0961	0.5848	0.5570	0.0392
	0.0012	0.1554	0.0700	0.0000	0.0000	0.0000
	0.4453	0.5340	0.1884	1.3372	0.4551	1.6639
	0.0979	0.03549	0.0138	0.2863	0.1858	0.1334
	0.0374	0.7671	0.3582	0.2692	0.2511	0.0489
	0.0012	0.1346	0.0589	0.0000	0.0000	0.0000
	0.0080	0.6741	0.3480	0.0110	0.0086	0.0049
	0.0000	0.00245	0.0014	0.0000	0.0000	0.0000
	0.2512	1.904	0.9385	0.3732	0.1772	0.8576
	1.1400	2.0780	0.5941	6.8574	1.9859	6.0830
	0.9521	4.3182	1.0243	3.6459	1.0291	4.0398
	2.5960	3.58	0.7498	3.9770	1.1640	2.1120
	1.4061	3.9762	1.8249	2.5778	0.8601	1.3177
	0.0396	0.0807	0.0531	1.3911	1.1006	18.9500
	0.0000	0.0520	0.0180	0.0000	0.0000	0.0000
	0.0187	0.0385	0.0193	0.0184	0.0143	0.0061
	0.0000	0.0924	0.0373	0.0000	0.0000	0.0024
	0.1406	0.3120	0.1002	0.9604	0.3207	1.2149
	1.6707	2.3692	0.7863	7.8374	2.0141	6.6262
	0.0010	0.3579	0.2269	0.0587	0.0573	0.0000
	0.1052	0.1248	0.0273	0.8968	0.4544	0.5848
	0.7183	1.351	0.6251	3.5040	2.6090	2.1030
	0.0304	0.2728	0.1005	0.1248	0.0813	0.0893
	0.0661	0.0985	0.0294	0.4661	0.1486	0.6533
	0.0010	0.2728	0.1071	0.0073	0.0048	0.0000
	1.6610	1.87	0.8160	0.5518	0.3179	1.2550
	0.5761	0.4539	0.1465	1.3923	0.5954	1.3372
	2.3104	5.8964	1.6720	13.9082	2.9271	16.0725
	0.0243	3.5107	1.7251	0.1175	0.0791	0.0538
	0.0050	0.5781	0.2205	0.0000	0.0000	0.0037
	0.5878	2.608	0.6446	2.6630	0.9060	0.7940
	0.0013	0.0000	0.0000	0.0000	0.0000	0.0000
	0.1844	1.2045	0.6148	0.6056	0.5972	0.0122
	2.6729	40.7801	4.7137	24.2390	4.6939	19.8248

0.1261	0.0557	0.0311	0.1505	0.0637	0.1872
0.0211	0.5353	0.4987	0.0269	0.0132	0.1211
0.5508	0.1731	0.0866	0.7830	0.3412	0.7341
0.3991	1.6780	0.7766	3.5602	1.1636	1.5232

rich differed in abundance between sampling sites at least once with  $p < 0.01$ . p-Value

SBX/SBH	DBX/DBH	OAX/SAX	SAX/DAX	SAX/SBX	DAX/DBX
ns	ns	ns	0.0384	ns	ns
ns	ns	ns	ns	ns	0.0168
ns	ns	ns	ns	ns	ns
ns	ns	ns	0.0328	0.0152	ns
ns	ns	ns	0.0032	ns	ns
ns	ns	ns	ns	ns	ns
0.0016	ns	ns	ns	0.0013	ns
ns	ns	ns	0.0128	0.0192	ns
0.0096	ns	ns	0.0011	0.0002	ns
ns	ns	ns	ns	ns	ns
0.0020	ns	ns	0.0096	0.0032	ns
ns	ns	ns	0.0200	0.0200	ns
0.0168	ns	ns	0.0032	0.0363	0.0467
0.0400	ns	ns	ns	0.0032	ns
0.0368	ns	0.0344	ns	ns	ns
0.0144	ns	0.0186	0.0004	0.0064	ns
0.0024	ns	ns	ns	ns	ns
0.0016	ns	ns	ns	ns	ns
0.0032	ns	ns	ns	0.0064	ns
0.0003	ns	ns	ns	ns	ns
ns	ns	ns	0.0008	ns	0.0421
ns	ns	ns	ns	0.0240	ns
0.0443	ns	ns	0.0008	0.0006	ns
ns	ns	0.0304	0.0160	ns	ns
ns	ns	ns	ns	ns	ns
0.0484	ns	ns	0.0009	0.0001	ns
ns	ns	ns	0.0472	ns	ns
0.0272	ns	ns	ns	ns	ns
ns	ns	0.0176	ns	0.0331	0.0331
ns	ns	ns	0.0032	ns	ns
ns	ns	ns	0.0056	0.0016	ns
ns	ns	0.0448	ns	ns	ns
ns	ns	ns	0.0120	0.0016	ns
0.0192	ns	ns	0.0048	ns	ns
0.0053	ns	ns	0.0032	0.0004	ns
ns	ns	ns	0.0034	ns	0.0459
0.0032	ns	ns	ns	ns	ns
ns	ns	ns	ns	0.0192	0.0363
0.0453	ns	ns	0.0012	0.0008	ns
0.0001	ns	ns	0.0109	0.0012	ns
ns	ns	ns	ns	0.0048	ns
ns	ns	0.0136	ns	0.0096	ns

ns  
0.0016

ns  
ns

ns  
0.0363

ns  
ns

ns  
ns

0.0080  
ns

\H	DAH		SBX		DE	
	SEM	mean	SEM	mean	SEM	mean
	0.0000	0.0086	0.0039	0.0245	0.0113	0.0324
	0.0116	0.0979	0.0533	0.0018	0.0013	0.0043
	1.1687	7.1560	1.8444	2.9218	0.6957	3.8382
	0.4177	0.3988	0.1946	0.9196	0.3256	0.9401
	0.0000	0.0122	0.0084	0.0337	0.0161	0.2427
	0.1966	0.7488	0.2324	0.2705	0.0834	0.2547
	0.0143	0.0441	0.0133	0.6612	0.1783	1.0340
	0.0000	0.0220	0.0125	0.3215	0.1986	0.2099
	0.5608	0.4771	0.2191	0.3789	0.0873	0.1331
	0.0442	0.0208	0.0107	0.1047	0.0342	0.1860
	0.0274	0.4013	0.2707	0.5197	0.1358	0.7759
	0.0000	0.0159	0.0089	0.0540	0.0234	0.0490
	0.0026	0.3511	0.2055	1.8039	0.6019	2.0621
	0.0000	0.0000	0.0000	0.4066	0.1493	0.6003
	0.2314	0.6142	0.1567	1.1510	0.3702	0.7485
	1.5469	2.9926	0.8058	4.0730	1.4021	3.7599
	0.8556	5.3612	1.4726	5.7739	1.5546	6.8178
	0.4074	4.2980	1.0200	2.5490	0.3221	2.6970
	0.3576	2.1753	1.4043	2.1880	1.0883	3.3318
	4.6534	20.2714	6.7438	0.0067	0.0045	0.0692
	0.0000	0.0257	0.0193	0.0000	0.0000	0.0325
	0.0026	0.0049	0.0032	0.0055	0.0038	0.0073
	0.0024	0.0551	0.0305	0.0710	0.0197	0.1263
	0.3831	0.7659	0.3113	1.5073	0.6227	0.9771
	1.1681	3.1149	1.1246	3.8096	0.9419	2.5804
	0.0000	0.0954	0.0584	0.1686	0.0691	0.4547
	0.2004	0.4661	0.2049	1.1048	0.4145	0.3485
	1.0520	1.8740	1.2760	1.1480	0.3946	1.5340
	0.0306	0.2594	0.1142	0.0331	0.0133	0.0355
	0.1693	0.4502	0.1426	0.3502	0.0656	0.2468
	0.0000	0.1236	0.0781	0.3759	0.1422	0.7467
	0.4049	0.7500	0.2043	1.4350	0.5074	1.6410
	0.5823	0.1921	0.0761	0.3337	0.1038	0.5648
	2.0951	5.8371	2.5418	12.6316	2.4381	6.9025
	0.0279	0.4906	0.2023	2.0700	0.8697	2.6686
	0.0026	0.0440	0.0247	0.0896	0.0471	0.0833
	0.2444	1.4270	0.3749	2.6910	1.1320	1.5330
	0.0000	0.0086	0.0063	0.0974	0.0462	0.0878
	0.0055	0.2398	0.1416	0.9769	0.3556	1.3985
	4.1015	32.6772	4.1716	39.4684	3.1926	41.6522

0.0656	0.0269	0.0111	0.0392	0.0248	0.0153
0.1142	0.0698	0.0530	0.0006	0.0006	0.0025
0.2930	0.2961	0.2426	0.1941	0.0888	0.0331
0.6229	1.8817	0.7266	2.3134	0.5131	1.3817

p-values <0.05 are given. Higher p-values are indicated by ns, not significant

SBX/DBX	OAH/SAH	SAH/DAH	SAH/SBH	DAH/DBH	SBH/DBH
ns	ns	ns	ns	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	0.0304	ns	ns
ns	ns	0.0251	0.0152	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	0.0480	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	ns	ns	ns
0.0384	ns	ns	0.0032	ns	ns
ns	ns	ns	0.0288	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	0.0344	ns	ns
ns	ns	ns	0.0048	ns	ns
ns	ns	ns	0.0024	ns	0.0064
ns	ns	ns	0.0016	ns	0.0032
ns	ns	ns	0.0064	ns	ns
ns	0.0016	ns	0.0008	ns	0.0010
ns	ns	ns	ns	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	0.0480	ns	ns
ns	ns	0.0075	ns	ns	ns
ns	ns	ns	0.0472	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	0.0331	0.0080	ns
ns	ns	ns	0.0048	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	0.0304	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	0.0192	ns	ns
ns	ns	0.0148	ns	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	0.0408	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	ns	ns	ns
ns	ns	ns	0.0012	ns	0.0012
ns	ns	ns	ns	ns	ns
ns	ns	ns	ns	ns	ns



ns  
ns

ns  
ns

ns  
ns

ns  
0.0363

ns  
ns

ns  
ns

3X	DBH	
SEM	mean	SEM
0.0201	0.0820	0.0803
0.0022	0.0028	0.0028
0.7300	4.4093	1.1781
0.6889	1.0224	0.4072
0.0835	0.4536	0.2814
0.0936	0.4083	0.2005
0.5607	2.4900	1.5780
0.0682	0.0028	0.0018
0.0427	0.3957	0.2487
0.1449	0.6145	0.3008
0.2146	0.5891	0.2850
0.0157	0.0238	0.0171
0.5627	1.8696	1.0840
0.3730	0.0042	0.0042
0.2533	0.5791	0.2609
2.1713	2.5203	0.9081
1.8438	3.2110	0.9982
0.4511	1.6280	0.3183
1.9719	1.3267	0.6661
0.0431	1.2682	1.0218
0.0293	0.0028	0.0028
0.0073	0.0070	0.0046
0.0315	0.1580	0.1500
0.2899	2.0191	1.0534
0.8486	5.8355	2.4325
0.1312	0.1692	0.1516
0.1050	0.8824	0.4295
0.7831	2.2770	1.3370
0.0155	0.0084	0.0045
0.0770	0.3943	0.1729
0.3141	0.4249	0.2668
0.7405	0.4994	0.1299
0.2271	0.5187	0.3299
2.0123	18.9698	6.8690
0.7285	5.1616	3.0900
0.0205	0.0000	0.0000
0.4507	2.8110	1.9050
0.0357	0.2755	0.2563
0.3303	2.9065	1.6220
4.8312	23.8310	6.4700

0.0089	0.0881	0.0723
0.0025	0.0056	0.0056
0.0318	0.1147	0.0671
0.3639	2.4460	0.6087

SBX/DAX

ns  
0.0032  
ns  
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0.0037  
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