

16S rRNA gene amplicon sequencing data of the Iron Quadrangle ferruginous caves (Brazil) shows the importance of conserving this singular and threatened geosystem

Short title: 16S rRNA gene amplicon sequencing of ferruginous caves

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Supplementary Table S3. The most abundant OTUs by sample and the unique OTUs by cave

#	Sample	Cave	Collection place	Barcode	15 most abundant OTUs (Relative abundance)			Unique OTUs by cave	
					Phylum	Genus	%	Phylum	Genus
1	MC1F1	1	Floor	CTAAGGTAAC	Acidobacteria	Gp2	40,58	Bacteroidetes Chloroflexi Proteobacteria	Flavobacterium Other Bacteriovorax Desulfacinum
					Acidobacteria	Gp1	9,69		
					Other	Other (bacteria)	8,39		
					Chloroflexi	Ktedonobacter	5,69		
					Chloroflexi	Other	3,10		
					Chloroflexi	Other	2,60		
					Thaumarchaeota	Nitrososphaera	2,40		
					Acidobacteria	Gp5	2,30		
					Chloroflexi	Other	2,10		
					Nitrospirae	Nitrospira	1,60		
					Acidobacteria	Gp13	1,50		
					Acidobacteria	Gp3	1,50		
					Proteobacteria	Steroidobacter	1,30		
					Acidobacteria	Candidatus Koribacter	1,10		
					Chloroflexi	Thermosporothrix	1,0		
2	MC1F2	1	Floor	TAAGGAGAAC	Acidobacteria	Gp2	34,46		
					Acidobacteria	Gp1	10,28		
					Other	Other	8,39		
					Chloroflexi	Ktedonobacter	6,69		
					Thaumarchaeota	Nitrososphaera	3,30		
					Chloroflexi	Other	3,20		
					Acidobacteria	Gp5	2,60		
					Chloroflexi	Other	2,30		
					Chloroflexi	Other	2,20		
					Chloroflexi	Other	2,20		

					Acidobacteria Acidobacteria Chloroflexi Nitrospirae Acidobacteria Proteobacteria	Gp3 Candidatus Koribacter Thermosporothrix Nitrospira Gp13 Steroidobacter	2,10 2,10 1,30 1,20 1,10 1,10		
3	MC1C1	1	Ceiling	AAGAGGATTC	Acidobacteria Thaumarchaeota Chloroflexi Other Nitrospirae Acidobacteria Chloroflexi Proteobacteria Acidobacteria Acidobacteria Acidobacteria Acidobacteria Proteobacteria Chloroflexi Proteobacteria	Gp2 Nitrososphaera Ktedonobacter Other Nitrospira Gp1 Other Other Gp3 Gp5 Candidatus Koribacter Gp13 Other Other Steroidobacter	31,68 10,58 8,99 7,10 6,10 4,40 3,60 3,60 1,70 1,40 1,30 1,30 1,20 1,10 0,80		
4	MC1C2	1	Ceiling	TACCAAGATC	Acidobacteria Other Thaumarchaeota Nitrospirae Chloroflexi Acidobacteria Acidobacteria Actinobacteria Chloroflexi Chloroflexi Proteobacteria Proteobacteria Acidobacteria Proteobacteria Proteobacteria	Gp2 Other Nitrososphaera Nitrospira Ktedonobacter Gp1 Gp13 Other Other Other Other Other Gp3 Steroidobacter Other	29,38 11,28 9,49 8,89 7,48 4,40 2,30 2,30 1,60 1,50 1,30 1,30 1,20 1,10 1,00		
5	MC2F1A	2	Floor	CAGAAGGAAC	Acidobacteria Acidobacteria Chloroflexi Acidobacteria Other Thaumarchaeota Acidobacteria Chloroflexi Chloroflexi	Gp2 Gp1 Ktedonobacter Gp3 Other Nitrososphaera Gp13 Thermogemmatispora Other	17,18 15,09 7,10 7,00 5,70 5,50 5,40 2,80 2,60	Thaumarchaeota Firmicutes Planctomycetes Proteobacteria Proteobacteria Proteobacteria Proteobacteria Proteobacteria Proteobacteria	Other Other Aquisphaera Other Methylocystis Skermanella Novosphingobium Ferrovum Sideroxydans

					Proteobacteria Proteobacteria Acidobacteria Chloroflexi Acidobacteria Proteobacteria	Rhizomicrobium Other Other Other Candidatus Solibacter Rhodoplanes	2,30 2,10 1,50 1,50 1,40 1,20	Proteobacteria Proteobacteria	Georgfuchsia Jahnella
6	MC2F2A	2	Floor	CTGCAAGTTC	Acidobacteria Acidobacteria Acidobacteria Chloroflexi Other Acidobacteria Thaumarchaeota Proteobacteria Chloroflexi Proteobacteria Chloroflexi Proteobacteria Acidobacteria Acidobacteria Actinobacteria	Gp1 Gp2 Gp3 Ktedonobacter Other Gp13 Nitrososphaera Other Other Rhodoplanes Thermogemmatispora Rhizomicrobium Candidatus Solibacter Candidatus Koribacter Actinoallomurus	17,08 15,18 10,18 7,50 3,90 3,20 3,00 3,00 2,70 1,90 1,70 1,70 1,70 1,60 1,50		
7	MC2C1A	2	Ceiling	TTCGTGATTC	Actinobacteria Chloroflexi Chloroflexi Other Actinobacteria Chloroflexi Acidobacteria Acidobacteria Acidobacteria Acidobacteria Actinobacteria Chloroflexi Proteobacteria Acidobacteria Actinobacteria	Other Thermosporothrix Ktedonobacter Other Other Other Gp2 Gp13 Gp3 Acidipila Crossiella Other Acidisoma Gp1 Conexibacter	40,76 8,78 6,18 5,50 5,20 4,30 3,60 2,10 2,00 2,00 1,90 1,50 1,30 1,20 1,20		
8	MC2C2A	2	Ceiling	TTCCGATAAC	Chloroflexi Actinobacteria Acidobacteria Other Firmicutes Acidobacteria Acidobacteria Acidobacteria Actinobacteria	Ktedonobacter Other Other Other Other Gp1 Gp2 Acidipila Other	18,78 16,38 7,60 5,00 4,70 4,40 4,00 3,80 3,20		

					Proteobacteria Actinobacteria Proteobacteria Actinobacteria Acidobacteria Chloroflexi	Other Crossiella Other Mycobacterium Gp13 Thermosporothrix	3,20 2,80 2,80 2,50 2,40 2,10		
9	MC2FB	2	Floor	TGAGCGGAAC	Acidobacteria Chloroflexi Acidobacteria Chloroflexi Chloroflexi Other Thaumarchaeota Proteobacteria Acidobacteria Acidobacteria Acidobacteria Proteobacteria Chloroflexi Proteobacteria Proteobacteria	Gp2 Ktedonobacter Gp1 Other Other Other Nitrososphaera Other Gp3 Gp13 Candidatus Koribacter Rhodoplanes Other Other Other	31,67 11,68 10,18 6,80 4,20 3,30 3,30 2,50 2,30 2,10 2,00 1,50 1,50 1,20 1,00		
10	MC2SB	2	Biofilm	CTGACCGAAC	Acidobacteria Acidobacteria Thaumarchaeota Acidobacteria Other Nitrospirae Proteobacteria Proteobacteria Bacteroidetes Elusimicrobia Acidobacteria Proteobacteria Acidobacteria Proteobacteria Proteobacteria	Gp1 Gp2 Nitrososphaera Gp3 Other Nitrospira Geobacter Other Ferruginibacter Elusimicrobium Candidatus Solibacter Other Other Other Other	16,10 13,00 12,20 7,00 6,40 4,70 4,20 4,10 3,60 3,30 2,70 1,60 1,60 1,60 1,40		
11	MC3F	3	Floor	TCCTCGAATC	Acidobacteria Acidobacteria Chloroflexi Other Proteobacteria Acidobacteria Acidobacteria Proteobacteria Proteobacteria	Gp2 Gp1 Ktedonobacter Other Steroidobacter Gp3 Gp5 Other Other	53,60 7,90 6,40 4,80 2,40 2,00 1,90 1,40 1,20	Actinobacteria Actinobacteria Actinobacteria Actinobacteria Bacteroidetes Bacteroidetes Bacteroidetes Firmicutes Firmicutes	Dietzia Microbacterium Spirillospora Rubrobacter Alloprevotella Chryseobacterium Other Other Staphylococcus

					Acidobacteria Acidobacteria Acidobacteria Acidobacteria Chloroflexi Verrucomicrobia	Other Gp13 Candidatus Koribacter Candidatus Solibacter Other Spartobacteria genera incertae sedis	1,20 0,80 0,80 0,70 0,60 0,60	Firmicutes Fusobacteria Proteobacteria Proteobacteria Proteobacteria Proteobacteria Proteobacteria	Clostridium sensu stricto Fusobacterium Sphingobium Alcaligenes Aquabacterium Tepidimonas Delftia
12	MC3C	3	Ceiling	TAGGTGGTTC	Acidobacteria Proteobacteria Other Acidobacteria Actinobacteria Firmicutes Thaumarchaeota Nitrospirae Proteobacteria Chloroflexi Actinobacteria Firmicutes Proteobacteria Proteobacteria Actinobacteria	Gp2 Bradyrhizobium Other Gp1 Other Bacillus Nitrososphaera Nitrospira Pseudomonas Ktedonobacter Propionibacterium Lysinibacillus Phenylobacterium Burkholderia Other	9,80 8,50 7,30 4,50 4,40 3,60 3,50 3,00 3,00 2,90 2,70 2,30 2,10 1,90 1,80	Proteobacteria Proteobacteria Proteobacteria Proteobacteria Proteobacteria Proteobacteria	Schlegelella Hydrogenophilus Neisseria Pseudomonas Xanthomonas
13	GC1F	4	Floor	TCTAACGGAC	Acidobacteria Chloroflexi Other Acidobacteria Nitrospirae Acidobacteria Proteobacteria Proteobacteria Proteobacteria Synergistetes Thaumarchaeota Proteobacteria Acidobacteria Proteobacteria Proteobacteria	Gp2 Ktedonobacter Other Gp1 Nitrospira Gp3 Steroidobacter Other Other Other Nitrososphaera Other Gp13 Cystobacter Other	36,10 17,90 6,80 5,30 4,80 2,60 1,30 1,30 1,20 1,10 1,00 0,90 0,80 0,80 0,80	Acidobacteria Proteobacteria	Bryobacter Rudaea
14	GMC1FAF	5	Floor	TTGGAGTGTC	Acidobacteria Chloroflexi Other Acidobacteria Acidobacteria Acidobacteria Chloroflexi Chloroflexi Thaumarchaeota	Gp2 Ktedonobacter Other Gp1 Candidatus Koribacter Gp13 Other Other Nitrososphaera	40,50 6,60 5,40 5,40 4,10 3,90 3,60 3,00 2,50	Acidobacteria Firmicutes Firmicutes Proteobacteria Proteobacteria Verrucomicrobia	Acidicapsa Cohnella Other Dongia Enterobacter Other

					Acidobacteria Nitrospirae Proteobacteria Chloroflexi Acidobacteria Chloroflexi	Gp3 Nitrospira Other Thermosporothrix Other Other	2,20 2,10 1,90 1,50 1,30 1,30		
15	GMC1CAF	5	Ceiling	TCTAGAGGTC	Acidobacteria Acidobacteria Acidobacteria Chloroflexi Other Chloroflexi Thaumarchaeota Proteobacteria Acidobacteria Chloroflexi Proteobacteria Acidobacteria Acidobacteria Proteobacteria Verrucomicrobia	Gp2 Gp1 Gp3 Other Other Thermosporothrix Nitrososphaera Other Gp13 Ktedonobacter Rhizomicrobium Candidatus Koribacter Candidatus Solibacter Other Subdivision3 genera incertae sedis	26,60 15,80 4,90 3,60 3,50 3,10 2,20 2,10 2,00 1,90 1,90 1,80 1,80 1,50 1,40		
16	GMC1FE	5	Floor	TCTGGATGAC	Acidobacteria Chloroflexi Chloroflexi Thaumarchaeota Acidobacteria Chloroflexi Nitrospirae Other Acidobacteria Acidobacteria Acidobacteria Acidobacteria Proteobacteria Proteobacteria Acidobacteria	Gp2 Other Other Ktedonobacter Nitrososphaera Candidatus Koribacter Other Nitrospira Other Gp1 Gp13 Gp3 Gp5 Other Other Candidatus Solibacter	27,30 13,00 11,10 8,80 6,10 5,10 4,30 4,10 3,70 2,90 1,70 1,60 1,40 0,90 0,60		
17	GMC1CE	5	Ceiling	TCTATTCGTC	Acidobacteria Chloroflexi Other Thaumarchaeota Chloroflexi Chloroflexi Nitrospirae Chloroflexi Acidobacteria	Gp2 Ktedonobacter Other Nitrososphaera Other Other Nitrospira Other Gp1	27,20 23,70 6,10 5,70 4,50 4,10 4,00 3,20 2,70		

					Acidobacteria Acidobacteria Proteobacteria Chloroflexi Proteobacteria Acidobacteria	Gp13 Gp5 Other Thermosporothrix Other Candidatus Koribacter	2,20 1,90 1,90 1,70 1,40 0,90		
19	GMC1CG	5	Ceiling	TTAGTCGGAC	Acidobacteria Other Chloroflexi Acidobacteria Proteobacteria Thaumarchaeota Nitrospirae Proteobacteria Proteobacteria Acidobacteria Acidobacteria Firmicutes Acidobacteria Proteobacteria Proteobacteria	Gp2 Other Ktedonobacter Gp1 Burkholderia Nitrososphaera Nitrospira Other Cupriavidus Other Gp3 Paenibacillus Gp13 Other Variovorax	29,50 15,50 5,90 5,90 5,00 4,30 2,70 2,20 1,80 1,70 1,60 1,60 1,50 1,20 1,00		
20	LCFAB	6	Floor	CAGATCCATC	Acidobacteria Chloroflexi Chloroflexi Other Acidobacteria Acidobacteria Chloroflexi Acidobacteria Thaumarchaeota Euryarchaeota Acidobacteria Chloroflexi Nitrospirae Proteobacteria Proteobacteria	Gp2 Ktedonobacter Other Other Gp3 Gp13 Other Gp1 Nitrososphaera Methanomassiliicoccus Candidatus Koribacter Thermosporothrix Nitrospira Rhizomicrobium Other	34,90 13,70 8,20 3,90 3,90 3,70 3,70 3,60 3,00 2,70 2,00 1,60 1,50 1,20 1,10	Euryarchaeota Actinobacteria Actinobacteria Actinobacteria Armatimonadetes Chlamydiae Proteobacteria Proteobacteria Proteobacteria Proteobacteria	Other Catenulispora Arthrobacter Kutzneria Armatimonadetes_gp4 Other Afipia Acidocella Other Pandoraea Thermomonas
21	LCFCE	6	Floor	TCGCAATTAC	Acidobacteria Other Acidobacteria Chloroflexi Acidobacteria Proteobacteria Acidobacteria Chloroflexi Chloroflexi	Gp2 Other Gp13 Ktedonobacter Gp1 Other Gp3 Other Other	28,40 9,60 7,30 6,60 5,70 3,10 2,90 2,70 2,10		

					Proteobacteria Proteobacteria Thaumarchaeota Nitrospirae Chloroflexi Bacteroidetes	Rhodoplanes Other Nitrososphaera Nitrospira Thermogemmatisspora Other	2,00 1,80 1,60 1,50 1,40 1,40		
22	LCCAB	6	Ceiling	TTCGAGACGC	Actinobacteria Acidobacteria Other Actinobacteria Acidobacteria Acidobacteria Proteobacteria Chloroflexi Acidobacteria Actinobacteria Firmicutes Nitrospirae Proteobacteria Proteobacteria Proteobacteria	Other Gp2 Other Other Gp1 Gp13 Other Ktedonobacter Gp3 Mycobacterium Other Nitrospira Other Other Other	22,40 17,60 9,30 4,30 4,20 3,90 3,80 3,30 2,40 1,70 1,60 1,50 1,40 1,30 1,20		
23	LCCCE	6	Ceiling	TGCCACGAAC	Acidobacteria Other Acidobacteria Chloroflexi Proteobacteria Acidobacteria Chloroflexi Firmicutes Thaumarchaeota Acidobacteria Proteobacteria Nitrospirae Chloroflexi Chloroflexi Proteobacteria	Gp2 Other Gp1 Ktedonobacter Other Gp13 Other Other Nitrososphaera Gp3 Other Nitrospira Other Thermogemmatisspora Other	23,60 13,80 5,00 4,90 4,80 3,70 3,70 3,10 3,10 2,20 1,90 1,60 1,60 1,60 1,50		
24	LCCF	6	Ceiling	AACCTCATTC	Proteobacteria Acidobacteria Proteobacteria Acidobacteria Bacteroidetes Other Proteobacteria Thaumarchaeota Proteobacteria	Burkholderia Gp13 Rhizobium Gp2 Mucilaginibacter Other Glaciimonas Nitrososphaera Other	26,30 14,80 11,70 10,00 3,70 3,50 3,50 3,00 1,90		

					Armatimonadetes Proteobacteria Proteobacteria Proteobacteria Proteobacteria Chloroflexi	Chthonomonas/Armatimonadetes_gp3 Other Cupriavidus Other Ralstonia Ktedonobacter	1,40 1,20 1,10 1,00 0,90 0,80		
25	LQCF*	7	Floor	CCTGAGATAC	Acidobacteria Actinobacteria Acidobacteria Actinobacteria Other Acidobacteria Chloroflexi Acidobacteria Chloroflexi Chloroflexi Acidobacteria Verrucomicrobia Proteobacteria Actinobacteria	Gp1 Other Gp3 Other Other Gp13 Other Gp2 Thermogemmatipora Ktedonobacter Other Acidipila Spartobacteria_genera_incertae_sedis Other Conexibacter	37,60 10,80 5,50 5,10 4,60 4,10 3,90 3,60 3,40 2,70 2,10 2,00 1,30 1,10 1,00	Acidobacteria Actinobacteria Bacteroidetes Proteobacteria Proteobacteria Proteobacteria Verrucomicrobia	Acidobacterium Other Pedobacter Other Granulibacter Aquicella Coxiella Diploricetisia Opitutus
26	LQCC*	7	Ceiling	TTACAACCTC	Acidobacteria Chloroflexi Other Acidobacteria Acidobacteria Chloroflexi Acidobacteria Actinobacteria Chloroflexi Firmicutes Acidobacteria Acidobacteria Verrucomicrobia Chloroflexi Actinobacteria	Gp3 Ktedonobacter Other Gp2 Gp13 Other Gp1 Other Thermosporothrix Other Other Acidipila Spartobacteria_genera_incertae_sedis Other Aciditerrimonas	10,39 10,10 8,00 7,50 7,20 6,30 5,80 5,70 4,50 2,90 2,80 2,30 1,90 1,40 1,30		
27	SMF1	8	Floor	AACCATCCGC	Chloroflexi Actinobacteria Acidobacteria Acidobacteria Actinobacteria Actinobacteria Acidobacteria Actinobacteria Actinobacteria	Ktedonobacter Mycobacterium Gp13 Acidipila Crossiella Conexibacter Gp3 Actinoallomurus Other	25,48 14,68 8,80 6,50 4,20 3,40 3,20 3,10 2,90	Acidobacteria Actinobacteria Actinobacteria Actinobacteria Proteobacteria Proteobacteria Proteobacteria	Other Rudaeicoccus Other Millisia Bauldia Stella Rhodocista

					Actinobacteria Chloroflexi Proteobacteria Proteobacteria Planctomycetes Other	Other Thermosporothrix Acidisoma Dokdonella Gemmata Other	2,90 2,60 2,50 2,10 1,90 1,80		
28	SMF2	8	Floor	ATCCGGAATC	Acidobacteria Other Acidobacteria Thaumarchaeota Chloroflexi Acidobacteria Acidobacteria Chloroflexi Chloroflexi Acidobacteria Proteobacteria Acidobacteria Nitrospirae Euryarchaeota Proteobacteria	Gp2 Other Gp13 Nitrososphaera Ktedonobacter Gp1 Candidatus Koribacter Other Other Gp3 Other Gp5 Nitrospira Methanomassiliicoccus Other	22,47 9,85 8,30 7,60 6,90 4,30 3,10 3,00 2,90 2,70 2,40 2,30 2,20 1,40 1,00		
29	SMC1	8	Ceiling	TCGACCACTC	Actinobacteria Acidobacteria Proteobacteria Acidobacteria Chloroflexi Proteobacteria Other Acidobacteria Firmicutes Chloroflexi Actinobacteria Acidobacteria Proteobacteria Actinobacteria Acidobacteria	Other Gp2 Other Acidipila Other Other Other Gp13 Other Ktedonobacter Other Candidatus Koribacter Other Mycobacterium Gp1	21,27 10,56 10,18 5,60 5,10 4,80 4,10 3,90 3,40 2,90 2,90 2,80 2,20 2,10 1,90		
30	SMC2	8	Ceiling	CGAGGTTATC	Acidobacteria Acidobacteria Other Proteobacteria Nitrospirae Acidobacteria Thaumarchaeota Chloroflexi Actinobacteria	Gp2 Gp13 Other Other Nitrospira Gp4 Nitrososphaera Ktedonobacter Other	27,06 18,08 10,10 5,70 4,00 3,40 3,10 2,80 2,30		

					Acidobacteria	Gp1	2,20		
					Chloroflexi	Other	1,60		
					Other	Other	1,60		
					Proteobacteria	Other	1,30		
					Actinobacteria	Streptacidiphilus	1,10		
					Proteobacteria	Cystobacter	1,00		