

Taxonomy according to D1-D2/LSU phylogenetic analysis	ASV	Cow		Lama		Elephant		Mara		Horse	Alpine Ibex	Alpaca	Kangaroo	Bison	Giraffe	Total read counts	Total clone count
		reads	Sanger clones	reads	Sanger clones	reads	Sanger clones	reads	Sanger clones	reads	reads	reads	reads	reads	reads		
<i>Neocallimastix frontalis</i>	ASV0001	829		484	1	32					1897	2594		351		6187	1
<i>Neocallimastix frontalis</i>	ASV0002	564														564	0
<i>Neocallimastix frontalis</i>	ASV0003	2578	6			941	3				4181					7700	9
<i>Neocallimastix frontalis</i>	ASV0004	444	1													444	1
<i>Neocallimastix frontalis</i>	ASV0005	2461	1	23		232	2				273	486		81		3556	3
<i>Neocallimastix frontalis</i>	ASV0006	97														97	0
<i>Neocallimastix frontalis</i>	ASV0007	336				361	2									697	2
<i>Neocallimastix frontalis</i>	ASV0008	1225	1													1225	1
<i>Neocallimastix frontalis</i>	ASV0009	2302	2	444		935	4			62	1713	11383		1		16840	6
<i>Neocallimastix frontalis</i>	ASV0010													293		293	0
<i>Neocallimastix frontalis</i>	ASV0011	250	1 (98.1%)	6		486	1				130	260		762		1894	2
<i>Neocallimastigaceae unclassified</i>	ASV0012											177				177	0
<i>Orpinomyces intercalaris</i>	ASV0013			1906	2							291	24			2221	2
<i>Orpinomyces intercalaris</i>	ASV0014			58	1											58	1
<i>Orpinomyces joyonii</i>	ASV0015			59								46				105	0
<i>Orpinomyces intercalaris</i>	ASV0016			427	2											427	2
<i>Orpinomyces intercalaris</i>	ASV0017			716	3											716	3
<i>Orpinomyces intercalaris</i>	ASV0018													106		106	0
<i>Orpinomyces joyonii</i>	ASV0019													482		482	0
<i>Orpinomyces joyonii</i>	ASV0020			448								783		5		1236	0
<i>Orpinomyces joyonii</i>	ASV0021													178		178	0
<i>Orpinomyces joyonii</i>	ASV0022													73		73	0
<i>Orpinomyces joyonii</i>	ASV0023			165	1							745		492		1402	1
<i>Orpinomyces joyonii</i>	ASV0024													1872		1872	0
<i>Orpinomyces joyonii</i>	ASV0025			93	1									124		217	1
<i>Orpinomyces joyonii</i>	ASV0026											194				194	0
<i>Orpinomyces joyonii</i>	ASV0027			932	4							1461				2393	4
<i>Orpinomyces joyonii</i>	ASV0028									25						25	0
<i>Piromyces communis</i>	ASV0030										716					716	0
<i>Piromyces sp. 4</i>	ASV0031	1191	1													1191	1
<i>Piromyces sp. 6</i>	ASV0032					15										15	0
<i>Piromyces sp. 6</i>	ASV0033		1		1	3466	7 3 (98.73%)									3466	12
<i>Cand. Piromyces potentiae</i>	ASV0034											440				440	0
<i>Cand. Piromyces potentiae</i>	ASV0035			24												24	0
<i>Cand. Piromyces potentiae</i>	ASV0036			282	1							313	4			599	1
<i>Cand. Piromyces potentiae</i>	ASV0037													75		75	0
<i>Cand. Piromyces potentiae</i>	ASV0038	60														60	0
<i>Cand. Piromyces potentiae</i>	ASV0039	481														481	0
<i>Cand. Piromyces potentiae</i>	ASV0040		5			3155	13 1 (98.73%)									3155	19
<i>Neocallimastigaceae genus 23 sp. 1</i>	ASV0041	699		214	1						500	657		116		2186	1
<i>Neocallimastigaceae genus 23 sp. 1</i>	ASV0042	96	1													96	1
<i>Neocallimastigaceae genus 23 sp. 1</i>	ASV0043			257								926		935		2118	0
<i>Neocallimastigaceae genus 23 sp. 1</i>	ASV0044	487	4								70					557	5
<i>Neocallimastigaceae genus 23 sp. 1</i>	ASV0045			231										390		621	0
<i>Neocallimastigaceae genus 23 sp. 1</i>	ASV0046													1		1	0

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<i>Neocallimastigaceae</i> genus 23 sp. 2	ASV0047											366				366	0
<i>Neocallimastigaceae</i> genus 23 sp. 3	ASV0048											453		296		749	0
<i>Neocallimastigaceae</i> genus 23 sp. 3	ASV0049			396	1							391				787	1
<i>Cyllamyces aberensis</i>	ASV0050													1502		1502	0
<i>Cyllamyces unclassified</i>	ASV0051													29		29	0
<i>Cyllamyces unclassified</i>	ASV0052													344		344	0
<i>Cyllamyces unclassified</i>	ASV0053													68		68	0
<i>Cyllamyces unclassified</i>	ASV0054													83		83	0
<i>Cyllamyces unclassified</i>	ASV0055													422		422	0
<i>Cyllamyces unclassified</i>	ASV0056			83												83	0
<i>Cyllamyces unclassified</i>	ASV0057			113	3											113	3
<i>Cyllamyces unclassified</i>	ASV0058											132				132	0
<i>Cyllamyces unclassified</i>	ASV0059													199		199	0
<i>Cyllamyces unclassified</i>	ASV0060													1114		1114	0
<i>Cyllamyces unclassified</i>	ASV0061			32								298		5647		5977	0
<i>Cyllamyces unclassified</i>	ASV0062			137												137	0
<i>Cyllamyces unclassified</i>	ASV0063													1181		1181	0
<i>Cyllamyces unclassified</i>	ASV0064													2955		2955	0
<i>Cyllamyces unclassified</i>	ASV0065													197		197	0
<i>Cyllamyces unclassified</i>	ASV0066													40		40	0
<i>Cyllamyces unclassified</i>	ASV0067													200		200	0
<i>Cyllamyces unclassified</i>	ASV0068													7		7	0
<i>Cyllamyces unclassified</i>	ASV0069											116				116	0
<i>Cyllamyces unclassified</i>	ASV0070			254										2101		2355	0
<i>Cyllamyces unclassified</i>	ASV0071													546		546	0
<i>Cyllamyces unclassified</i>	ASV0072													147		147	0
<i>Cyllamyces unclassified</i>	ASV0073													44		44	0
<i>Cyllamyces unclassified</i>	ASV0074													483		483	0
<i>Cyllamyces unclassified</i>	ASV0075													36		36	0
<i>Cyllamyces unclassified</i>	ASV0076													80		80	0
<i>Cyllamyces unclassified</i>	ASV0077													19		19	0
<i>Cyllamyces unclassified</i>	ASV0078													192		192	0
<i>Caecomycetes churrovii</i>	ASV0079													787		787	0
<i>Caecomycetes churrovii</i>	ASV0080			299								851				1150	0
<i>Caecomycetes churrovii</i>	ASV0081	621		193						21	8863	621				10319	0
<i>Caecomycetes churrovii</i>	ASV0082	15791	13												1693	17484	14
<i>Caecomycetes churrovii</i>	ASV0083					6296	15 2 (98.73%)									6296	17
<i>Caecomycetes communis</i>	ASV0084						1				10880					10880	1
<i>Paucimycetes sp. 2</i>	ASV0085			46												46	0
<i>Paucimycetes sp. 2</i>	ASV0086			605										169		774	0
<i>Feramyces austinii</i>	ASV0087														99	99	0
<i>Feramyces austinii</i>	ASV0088														9589	9589	0
<i>Feramyces austinii</i>	ASV0089														816	816	0
<i>Feramyces austinii</i>	ASV0090														3785	3785	0
<i>Feramyces austinii</i>	ASV0091														104	104	0
<i>Feramyces austinii</i>	ASV0092														13	13	0
<i>Feramyces austinii</i>	ASV0093														1058	1058	0

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<i>Feromyces austinii</i>	ASV0094														3281	3281	0
<i>Feromyces austinii</i>	ASV0095														13408	13408	0
<i>Neocallimastigaceae</i> genus 24 unclassified	ASV0096											824				824	0
<i>Neocallimastigaceae</i> genus 24 unclassified	ASV0097										856					856	0
<i>Neocallimastigaceae</i> genus 24 unclassified	ASV0098										436					436	0
<i>Neocallimastigaceae</i> genus 24 unclassified	ASV0099			103												103	0
<i>Neocallimastigaceae</i> genus 24 unclassified	ASV0100			477												477	0
<i>Neocallimastigaceae</i> genus 24 unclassified	ASV0101			54												54	0
<i>Neocallimastigaceae</i> genus 24 unclassified	ASV0102			277												277	0
<i>Neocallimastigaceae</i> genus 25 unclassified	ASV0103											228		3871		4099	0
<i>Neocallimastigaceae</i> genus 25 unclassified	ASV0104											181		2442		2623	0
<i>Anaeromyces mucronatus</i>	ASV0105											263				263	0
<i>Anaeromyces mucronatus</i>	ASV0106			853	1							400				1253	1
<i>Anaeromyces mucronatus</i>	ASV0107											405				405	0
<i>Anaeromyces mucronatus</i>	ASV0108			307												307	0
<i>Anaeromyces mucronatus</i>	ASV0109											83				83	0
<i>Anaeromyces mucronatus</i>	ASV0110			909	1											909	1
<i>Anaeromyces mucronatus</i>	ASV0111			624	2							68				692	2
<i>Anaeromyces mucronatus</i>	ASV0112													187		187	0
<i>Anaeromyces mucronatus</i>	ASV0113													148		148	0
<i>Anaeromyces mucronatus</i>	ASV0114											60	24			84	0
<i>Neocallimastigaceae</i> genus 21 unclassified	ASV0115			521								76				597	0
<i>Neocallimastigaceae</i> genus 21 unclassified	ASV0116										185					185	0
<i>Neocallimastigaceae</i> genus 26 unclassified	ASV0117										19		26079			26098	0
<i>Neocallimastigaceae</i> genus 26 unclassified	ASV0118												146			146	0
<i>Neocallimastigaceae</i> genus 26 unclassified	ASV0119													58		58	0
<i>Neocallimastigaceae</i> genus 22 unclassified	ASV0120							13852	34 1 (98.73%)							13852	35
<i>Neocallimastigaceae</i> genus 22 unclassified	ASV0121							6095	7							6095	7
<i>Neocallimastigaceae</i> genus 22 unclassified	ASV0122							5619	11							5619	11
<i>Khoyollomyces ramosus</i>	ASV0123									2903						2903	0

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		reads	Sanger clones	reads	Sanger clones	reads	Sanger clones	reads	Sanger clones	reads	reads	reads	reads	reads	reads		
<i>Khoyollomyces ramosus</i>	ASV0124					99				11645						11744	0
<i>Khoyollomyces ramosus</i>	ASV0125									203						203	0
<i>Khoyollomyces ramosus</i>	ASV0126									1891						1891	0
<i>Khoyollomyces ramosus</i>	ASV0127									103						103	0
<i>Khoyollomyces ramosus</i>	ASV0128									521						521	0
<i>Khoyollomyces ramosus</i>	ASV0129									4172						4172	0
<i>Khoyollomyces ramosus</i>	ASV0130									2604						2604	0
Total count	129	30512	37	13052	26	16018	54	25566	53	24150	30719	26572	26277	31931	33846	258643	
ASVs per sample		18	12	37	16	11	9	3	3	11	15	34	5	50	10		
Clone total count																	172