

Dataset	Variable	Model	r	$p - value$
HMP	N_0	BS	-0.386	1.15×10^{-159}
		METE	-0.191	2.01×10^{-38}
		Zipf	0.228	2.01×10^{-38}
	S_0	BS	0.276	2.82×10^{-79}
		METE	0.314	1.82×10^{-12}
		Zipf	0.144	2.01×10^{-38}
	N_0/S_0	BS	-0.626	0.0
		METE	-0.453	1.87×10^{-226}
		Zipf	0.125	1.03×10^{-09}
EMP Closed	N_0	BS	-0.354	0.0
		METE	-0.0824	2.02×10^{-23}
		Zipf	0.262	2.57×10^{-40}
	S_0	BS	0.264	4.89×10^{-231}
		METE	0.287	1.32×10^{-274}
		Zipf	0.0181	0.367
	N_0/S_0	BS	-0.695	0.0
		METE	-0.377	0.0
		Zipf	0.334	1.18×10^{-65}
EMP Open	N_0	BS	-0.349	0.0
		METE	-0.205	6.28×10^{-140}
		Zipf	0.294	7.66×10^{-113}
	S_0	BS	0.0731	5.00×10^{-19}
		METE	0.103	1.57×10^{-36}
		Zipf	0.126	1.79×10^{-21}
	N_0/S_0	BS	-0.763	0.0
		METE	-0.544	0.0
		Zipf	0.0644	0.339
MG – RAST	N_0	BS	-0.830	2.18×10^{-295}
		METE	-0.237	3.64×10^{-16}
		Zipf	0.405	3.41×10^{-10}
	S_0	BS	-0.567	1.76×10^{-99}
		METE	-0.267	2.44×10^{-20}
		Zipf	0.464	2.82×10^{-13}
	N_0/S_0	BS	-0.796	2.37×10^{-253}
		METE	-0.187	1.35×10^{-10}
		Zipf	0.403	1.83×10^{-219}
MG – RAST 95%	N_0	BS	-0.788	7.12×10^{-84}
		METE	-0.365	1.015×10^{-13}
		Zipf	0.250	0.00294
	S_0	BS	-0.428	9.37×10^{-19}
		METE	-0.248	7.64×10^{-07}
		Zipf	0.264	0.00162
	N_0/S_0	BS	-0.632	8.49×10^{-45}
		METE	-0.253	4.32×10^{-07}
		Zipf	0.0374	0.661
MG – RAST 97%	N_0	BS	-0.803	4.17×10^{-87}
		METE	-0.361	3.49×10^{-13}
		Zipf	0.356	1.34×10^{-05}
	S_0	BS	-0.447	4.216×10^{-20}
		METE	-0.259	2.87×10^{-07}
		Zipf	0.512	7.10×10^{-11}
	N_0/S_0	BS	-0.639	4.33×10^{-45}
		METE	-0.242	1.79×10^{-06}
		Zipf	-0.135	0.109
MG – RAST 99%	N_0	BS	-0.792	2.46×10^{-82}
		METE	-0.353	1.65×10^{-12}
		Zipf	0.226	0.00758
	S_0	BS	-0.408	1.55×10^{-82}
		METE	-0.246	1.36×10^{-06}
		Zipf	0.169	0.0471
	N_0/S_0	BS	-0.667	7.85×10^{-50}
		METE	-0.248	1.14×10^{-06}
		Zipf	0.140	0.0993