| Dataset | Variable | Model | $r$ | $p-value$ |
|---|---|---|---|---|
| HMP | $N_0$ | BS | $-0.386$ | $1.15 \times 10^{-159}$ |
| | | METE | $-0.191$ | $2.01 \times 10^{-38}$ |
| | | Zipf | $0.228$ | $2.01 \times 10^{-38}$ |
| | $S_0$ | BS | $0.276$ | $2.82 \times 10^{-79}$ |
| | | METE | $0.314$ | $1.82 \times 10^{-12}$ |
| | | Zipf | $0.144$ | $2.01 \times 10^{-38}$ |
| | $N_0/S_0$ | BS | $-0.626$ | $0.0$ |
| | | METE | $-0.453$ | $1.87 \times 10^{-226}$ |
| | | Zipf | $0.125$ | $1.03 \times 10^{-09}$ |
| EMP Closed | $N_0$ | BS | $-0.354$ | $0.0$ |
| | | METE | $-0.0824$ | $2.02 \times 10^{-23}$ |
| | | Zipf | $0.262$ | $2.57 \times^{-40}$ |
| | $S_0$ | BS | $0.264$ | $4.89 \times 10^{-231}$ |
| | | METE | $0.287$ | $1.32 \times 10^{-274}$ |
| | | Zipf | $0.0181$ | $0.367$ |
| | $N_0/S_0$ | BS | $-0.695$ | $0.0$ |
| | | METE | $-0.377$ | $0.0$ |
| | | Zipf | $0.334$ | $1.18 \times^{-65}$ |
| EMP Open | $N_0$ | BS | $-0.349$ | $0.0$ |
| | | METE | $-0.205$ | $6.28 \times 10^{-140}$ |
| | | Zipf | $0.294$ | $7.66 \times^{-113}$ |
| | $S_0$ | BS | $0.0731$ | $5.00 \times 10^{-19}$ |
| | | METE | $0.103$ | $1.57 \times 10^{-36}$ |
| | | Zipf | $0.126$ | $1.79 \times 10^{-21}$ |
| | $N_0/S_0$ | BS | $-0.763$ | $0.0$ |
| | | METE | $-0.544$ | $0.0$ |
| | | Zipf | $0.403$ | $1.83 \times 10^{-219}$ |
| MG $-$ RAST 95% | $N_0$ | BS | $-0.302$ | $0.141$ |
| | | METE | $-0.158$ | $0.828$ |
| | | Zipf | $0.255$ | $0.0165$ |
| | $S_0$ | BS | $0.0234$ | $0.828$ |
| | | METE | $0.140$ | $0.192$ |
| | | Zipf | $0.0229$ | $0.832$ |
| | $N_0/S_0$ | BS | $-0.862$ | $3.75 \times 10^{-27}$ |
| | | METE | $-0.734$ | $4.12 \times 10^{-16}$ |
| | | Zipf | $0.634$ | $3.18 \times 10^{-11}$ |
| MG $-$ RAST 97% | $N_0$ | BS | $-0.0782$ | $0.480$ |
| | | METE | $0.226$ | $0.0389$ |
| | | Zipf | $0.298$ | $0.00595$ |
| | $S_0$ | BS | $0.169$ | $0.125$ |
| | | METE | $0.353$ | $0.00101$ |
| | | Zipf | $0.163$ | $0.139$ |
| | $N_0/S_0$ | BS | $-0.642$ | $4.69 \times 10^{-11}$ |
| | | METE | $-0.244$ | $0.0255$ |
| | | Zipf | $0.433$ | $3.91 \times 10^{-05}$ |
| MG $-$ RAST 99% | $N_0$ | BS | $-0.312$ | $0.00265$ |
| | | METE | $-0.172$ | $0.109$ |
| | | Zipf | $0.228$ | $0.0326$ |
| | $S_0$ | BS | $0.0150$ | $0.890$ |
| | | METE | $0.132$ | $0.221$ |
| | | Zipf | $-0.010$ | $0.925$ |
| | $N_0/S_0$ | BS | $-0.868$ | $7.99 \times 10^{-28}$ |
| | | METE | $-0.737$ | $2.71 \times 10^{-16}$ |
| | | Zipf | $0.623$ | $8.77 \times 10^{-11}$ |